

The Bulletin of the
UNIVERSITY of MINNESOTA

The Biennial Report of the President
and of the Board of Regents of
the University of Minnesota
to the Legislature of the
State of Minnesota.

Approved and adopted by
the Board of Regents

1950-1952

THE BOARD OF REGENTS

	Term Expires
JAMES F. BELL, Minneapolis - - - - -	1957
DANIEL C. GAINNEY, Owatonna - - - - -	1955
RICHARD L. GRIGGS, Duluth - - - - -	1957
J. S. JONES, St. Paul - - - - -	1953
GEORGE W. LAWSON, St. Paul - - - - -	1957
†ALBERT J. LOBB, Rochester - - - - -	1953
*LESTER A. MALKERSON, Minneapolis - - - - -	1953
†CHARLES W. MAYO, Rochester - - - - -	1953
E. E. NOVAK, New Prague - - - - -	1955
A. J. OLSON, Renville - - - - -	1955
RAY J. QUINLIVAN, St. Cloud - - - - -	1957
HERMAN F. SKYBERG, Fisher - - - - -	1955
*FRED B. SNYDER, Minneapolis - - - - -	1953
SHELDON V. WOOD, Minneapolis - - - - -	1953

* The 1951 Legislature elected Lester A. Malkerson of Minneapolis to replace Fred B. Snyder of Minneapolis who had resigned from the Board on January 22, 1951.

† The 1951 Legislature elected Charles W. Mayo of Rochester to replace Albert J. Lobb of Rochester who had resigned from the Board on January 25, 1951.

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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, 1952.

Like those which have preceded it, this report presents the manifold activities of the University in considerable detail. Such detail is made possible only through the splendid cooperation of my colleagues in reporting on the work of their individual departments. These reports, taken collectively, bear out the fact that the University is, indeed, a vast cooperative enterprise whose achievements during its first hundred years support the oft-repeated assertion that the state university is the most significant activity in the state with the exception of the government of the state itself.

Retrenchment—The University was faced with the disheartening problem of retrenchment during both years of the biennium. In 1950-51 available budget funds totaled some \$400,000 less than the previous year. Consequently, curtailments in many areas were necessary. Although the 1951 Legislature appropriated more money for general maintenance than ever before in the University's history, approximately \$1,900,000 more than had been available for 1950-51, increased costs for supplies, equipment, and services, together with a legislative mandate for academic and civil service salary increases, made additional adjustments inescapable.

The Board of Regents, faced with this serious situation, authorized a drastic reduction in staff, at the same time approving increases in tuition and fees. Neither of these alternatives was a happy one. Several hundred junior staff members, not yet having achieved tenure, were dropped. The allegations of one staff member involved commanded considerable attention during the year. In all classifications many vacant positions were left unfilled. The civil service staff was also reduced. Tuition for nonresidents was raised \$25 per quarter, and for residents \$3 per quarter. An increase of \$2.50 per quarter was made in the incidental fee paid by all regular students to assist in defraying the increased costs of student services.

When registration for the fall quarter, 1951, was completed, it developed that 682 more students than had been estimated were enrolled. This served to compound in some degree the University's problem because additional staff had to be recruited to care for the unexpected increase. The University of Minnesota was not alone in underestimating the probable size of its 1951-52 student body. College enrollment throughout the nation proved to be greater for that academic year than anyone had foreseen.

However, it should be pointed out that once more adversity became, if not the mother of necessity, at least the stimulus to a new resourcefulness. Retrenchment, while it meant the inability to do as much as might have been desired, or the impossibility of going forward in every desirable way, did not undermine the fundamental integrity of the University, nor discourage its firm dedication to "the advancement of learning and

the search for truth." Nor did it weaken the devotion of the University community to "the instruction of youth and the welfare of the state."

The services of a university, closely integrated as they are with the needs of the people of the state that it serves, cannot be contracted abruptly without disquieting effects. The truth of this does not always become manifest until a constricting crisis is at hand. A university in the performance of its functions may in some respects be likened to the post-man whose importance is not appreciated until he fails to make his accustomed rounds. The University of Minnesota is indeed a quietly pervasive influence in the lives of the people of this state. How pervasive is quickly demonstrated when services have to be curtailed or discontinued. It was this that the retrenchment so incontrovertibly demonstrated.

The University was grateful for the increased support the 1951 Legislature was able finally to provide. We lived within our budget adjusting and adapting as best we could. In this regard, it should be noted that serious attention was given the recommendations of the Minnesota Efficiency in Government Commission. I am sure we had the friendly understanding of our students, of our staff, and of the public concerning those areas in which, temporarily, we achieved less than had been expected or hoped for. Our sense of commitment to the commonweal was undiminished as we entered our Second Century.

Centennial Celebration—The most significant single event in the biennium was the celebration, in 1951, of the first hundred years of the University's existence. The corporate life of the University began with the approval of its Charter by the Territorial Legislature, to which the Governor affixed his signature on February 25, 1851.

The Centennial was marked in many ways.

An attractive Centennial color brochure was widely distributed, and will have usefulness for many years to come by placing it in the hands of interested campus visitors.

James Gray, after two years of intensive research, wrote a 609-page book, including 64 pages of pictures, *University of Minnesota: 1851-1951*, which was published in 1951 by the University of Minnesota Press. Mr. Gray, a professor of English at the University, was chosen for this task because of his rich background as a literary critic for both St. Paul and Chicago newspapers, and his skill as a popular writer. All our expectations were realized and this intriguing history of the University has been widely acclaimed.

The University commissioned Walter Piston, well-known contemporary composer, to write a Centennial symphony. This composition, Symphony No. 4, was given its world première by the Minneapolis Symphony Orchestra, Antal Dorati conducting, at a concert in Northrop Memorial Auditorium on March 30, 1951. The response of the critics was most favorable.

The staff of the University radio station, KUOM, prepared a series of 13 documentary radio programs under the general title, "Minnesota Mid-Century." These programs dramatized the activities of the University in many fields, on and off campus—mental health, taconite research, milling research, plant diseases, medicine, lumbering, to cite but a few examples. The series was broadcast over a period of months by KUOM and

38 other Minnesota radio stations, with the initial presentation on the University radio station on February 17, 1951.

The celebration culminated in a Centennial Convocation on February 15, 1951. During that week alumni groups and service clubs held luncheon and dinner meetings throughout the state with University staff members as guest speakers. Twin Cities business establishments honored the University with exhibits representative of University service. At the Centennial Convocation, Dean Maynard E. Pirsig of the Law School delivered the principal address honoring Dean Emeritus Everett Fraser, upon whom the honorary degree of doctor of laws was conferred. The Law School building was at the same time formally designated as Fraser Hall.

Building Dedications—Eleven sorely-needed University buildings were completed and dedicated during the biennium. These dedications served, in most instances, as occasions for educational conferences and alumni reunions in the several fields.

The first of these formal ceremonies took place on August 30, 1950, when Peters Hall, the Division of Animal Husbandry building, was dedicated.

The Institute of Technology devoted the three-day period, October 5-7, 1951, to an educational conference in conjunction with the dedication of the Mechanical-Aeronautical and Chemical Engineering buildings.

Dedication of the new Veterinary Clinic Building on the St. Paul Campus occurred on October 25, 1951.

The new University Health Service was dedicated on November 7 of that same year.

The four other buildings dedicated during the first year of the biennium were Centennial Hall, the new dormitory for men, February 1, 1951; the Variety Club Heart Hospital, March 20, 1951; and Ford and Johnston Halls, April 19, 1951.

One dedication ceremony was held in the second year of the biennium, that of the new, modern wing to the Home Economics building on May 9, 1952.

Gifts—Most substantial sums came to the University in cash gifts during the biennium. The total, not including Greater University Fund gifts, reached \$2,258,162.79 during 1950-51, comprised of 398 gifts. The following year \$2,451,937.80 was received from 453 donors. These gifts, as had been the case in previous bienniums, were provided for research, for miscellaneous purposes—teaching programs, plant expansion, equipment purchases, and the like—and for scholarships, fellowships, student loan funds, and prizes.

All of these gifts were formally accepted by the Regents, and the University's sincere appreciation was expressed to the donors. The detailed tabulation of these gifts as well as the report of the Greater University Fund is shown elsewhere in these pages.

New Administrative Officers—Several key administrative posts were filled during the two-year period. Early in the biennium, Dr. John E. King, then academic dean at the Duluth Branch, was appointed to the post of provost at Duluth, filling the vacancy caused by the resignation of Dr. Raymond C. Gibson.

Dr. T. Raymond McConnell, dean of the College of Science, Literature, and the Arts, resigned September 1, 1950 to accept the chancellorship of the University of Buffalo. Dr. J. William Buchta, chairman of the Department of Physics and assistant dean for the Senior College, was named acting dean. Later, in the summer of 1951, Dr. Errett W. McDiarmid, who had served as University librarian and director of the Division of Library Instruction for 8 years, was elected to the deanship.

Dean Wesley E. Peik, who had served the University for 27 years, the last 14 as dean of the College of Education, died on December 6, 1951. Assistant Dean Marcia Edwards was named acting dean to serve until a successor was selected. As the biennium closed, Dr. Walter W. Cook, a member of the College of Education faculty since 1938, was chosen for the deanship.

Isaac J. Armstrong, who had served as athletic director and head football coach at the University of Utah for 25 years, was named director of the Department of Physical Education and Athletics for Men to fill the vacancy left by the resignation of Frank G. McCormick. Mr. Armstrong assumed his duties on July 1, 1950.

Late in the biennium, Dr. Henry Schmitz, dean of the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine, resigned to accept the presidency of the University of Washington.

University deanships are key posts, for the dean of a college by virtue of his position exercises the leadership that fosters and stimulates effective educational activity within his staff. Hence it is of vital importance that, when vacancies occur, these be filled with men of top standing, of high accomplishment, and of great promise. There is real satisfaction in the realization that while during the biennium the University through death and resignation has lost the services of men of great ability and leadership, replacements have been found that will insure the continuous advance of the colleges that are involved.

The University of Minnesota has long been an institution to which others have turned when seeking able scholars and administrators. This is one evidence of the high standing and reputation of the University. So long as we ourselves can make competent replacements, there is reason for pride in the opportunities that come to members of our staff who have made their careers on our campus. During this biennium we have been eminently successful in this respect.

Veterinary Medicine Graduates First Class—The University's new School of Veterinary Medicine, established in 1947, graduated its first class, 23 students, in June, 1951. This School, which met a long-felt need in Minnesota, is now equipped to accept 50 students each year.

Changes in the Board of Regents—The entire state was saddened by the death on February 14, 1951, of Fred B. Snyder. Mr. Snyder, a graduate of the University and a member of its Board of Regents for 39 years, had resigned on January 22, 1951, because of ill health. On January 31, after Mr. Snyder's resignation and shortly before his death, the Minnesota House of Representatives and Senate, meeting in joint session, adopted this appropriate and truly deserved resolution:

WHEREAS, On the 21st of this coming month of February (1951)

Fred B. Snyder of Minneapolis will achieve the venerable age of ninety-two, and

WHEREAS, His long and vigorous life stands as a memorable symbol of devoted and broad-visioned public service, and

WHEREAS, Over a half century ago—in 1896—he was elected a member of this House, and two years later was elected a member of this Senate, in both of which he served with eminence and distinction, and

WHEREAS, In 1912 he was named a Regent of the University of Minnesota (and chairman of its Board in 1914) and has through the years that followed devoted himself unceasingly to furthering the growth of the University in educational influence and service, and

WHEREAS, Failing health, though no weariness of spirit, now prompts him to submit his resignation and step aside so that the burdens of University responsibility may be carried on younger shoulders than his,

Therefore, Be It Resolved, That the House and Senate of Minnesota in joint convention do record their admiration, their sense of gratitude, and their respect for the manifold contributions made to the welfare and the progress of the State of Minnesota and to its University by the Honorable Fred B. Snyder, and

Be It Further Resolved, That there be extended to the Honorable Fred B. Snyder the warmest of greetings and the kindest of wishes as he approaches another milestone in the notable career that has in truth made him, for the state and for the University, “a builder of the name.”

Lester A. Malkerson of Minneapolis was subsequently elected as his successor. Four months earlier, on September 22, 1950, Regent Snyder had resigned from the chairmanship of the Board of Regents—a post he had filled with distinction for 36 years. On that same day, Regent Ray J. Quinlivan of St. Cloud was unanimously elected to fill the then vacant chairmanship.

The resignation on February 2, 1951 of Albert J. Lobb of Rochester, deprived the Board of Regents of still another of its members. Mr. Lobb resigned because of change in residence to another state. The 1951 Legislature, on February 20, 1951, elected Dr. Charles W. Mayo of Rochester to fill the vacant post.

Duluth Branch—Continued progress marked the work of the Duluth Branch during the biennium. In addition to the designation of a new provost, the first year of the biennium witnessed a significant change in its administrative organization. As a result of its curriculum study program, the Duluth faculty proposed, and the Board of Regents gave approval, to the grouping of all of its instructional activities into four major divisions: Humanities, Social Studies, Science and Mathematics, and Professional Education.

Faculty Honors—The faculty of an institution as distinguished as the University of Minnesota of course accumulates many honors during any biennial period. These are accurately documented later in this report in a section entitled, “Honors and Distinctions.” This list speaks for itself, and normally I should not single any item for special mention. How-

ever, I cannot refrain from calling to attention the honor that came during this biennium to two members of the Mayo Foundation for Medical Education and Research. Dr. Philip S. Hench, professor of medicine, and Dr. Edward C. Kendall, professor of physiological chemistry, shared with a Swiss professor the 1950 award of the Nobel Prize in medicine. The award was in recognition of their discovery and use of the hormones ACTH and cortisone.

Student and Parent Relationships—For some years the University has invited new students to come to the University in small groups prior to the opening of the fall quarter so that they may be orientated to the many opportunities which the University provides and be given guidance in planning their programs of studies. It had long been realized that there would be many advantages if parents of new students could also have the opportunity to spend a day at the University and learn at first hand something of the problems which new students face and the facilities which the University provides to help them in meeting them.

The first "Parents Day" was held September 23, 1951. Its success was attested to by the fact that 1,200 mothers and fathers participated, and that they came from more than 100 communities in Minnesota, and from other states as well.

Significant progress was also made in the development of student participation and support in the formulation of plans and policies of the University for student government. To this end a formal plan of student participation was adopted by the University Senate on June 6, 1951.

The Search for Truth—Two years ago I pointed out the three-fold functions of a state-supported university: to teach, to carry on research, and to render state-wide service. The teaching function, especially at the undergraduate level, is universally recognized. So, in general, is the obligation to render service to individual citizens. The provision for graduate study, coupled with scientific research, may not be so well understood.

In his classic history of the German university, Friedrich Paulsen wrote: "The older university instruction was everywhere based upon the assumption that the truth had already been given, that instruction had to do with transmission only, and that it was the duty of the controlling authorities to see to it that no false doctrines were taught."

"The new university instruction," he continued, "began with the assumption that the truth must be discovered . . ."

In that statement, "the truth must be discovered," rests the obligation on all institutions of university status to carry on research and provide the training, through graduate study, of those individual students whose abilities make them most likely to advance the frontiers of knowledge in the years that lie ahead.

The statement by Paulsen also epitomizes the concept of academic freedom. The truth must be discovered; and those who travel the road toward the unknown, responsibly committed to truth, must be free. Truth cannot be found where irresponsible, unreasoned strictures exist. An iron curtain on the human mind as surely keeps truth out as political iron curtains keep unwilling subjects in.

During the biennium an incident involving the University attracted nationwide attention and appeared to some to challenge the University's

commitment to this thesis. Developments, however, served to emphasize the University's unequivocal determination to foster and defend responsible scholarship and citizenship.

"There are few earthly things more splendid than a university," wrote the British poet John Masefield. "In these days of broken frontiers and collapsing values, when the dams are down and floods are making misery, when every future looks somewhat grim and every ancient foothold has become something of a quagmire, wherever a university stands, it stands and shines—wherever it exists, the free minds of men, urged on to full and fair enquiry, may still bring wisdom to human affairs."

Religious Opportunity—The development of intellectual competence is not the sole aim of the educative process. Education shares a tripartite responsibility with the home and church in the total, comprehensive education of youth. Hence, as an educational institution, the University recognizes the indispensability of parental guidance and religious participation in the educative process.

One of the chief aims of university education, as I pointed out earlier, is the "search for truth." This is a moral and spiritual as well as a rational undertaking. Learning alone is not enough. The uses of learning determine its worth. These uses will be the outcome of a sense of moral and social responsibility, of faith and awareness of ethical imperatives which historically religion best imbues and implants. In the final analysis everything comes down to character, and the values that underlie it.

The secular and legal charter of the University precludes any religious test of faculty and students, and prohibits any single sectarian approach to religious education. It does not, and was not meant to preclude encouragement and assistance to the concept of religious freedom.

Believing as we do, that the learning process transcends classroom and laboratory work and that student activities are educative, we have sought to organize assistance to student activities, including religious activities, constructively, definitely, legally.

Faith and Education—Macaulay reminds us that "no man who is correctly informed as to the past will be disposed to take a morose or desponding view of the future." And I pointed out to our graduating class in June, 1952 that "the 'morose or desponding view of the future' is not the typical attitude of American young people." We can well understand why youth in many lands can see little opportunity ahead in their lifetime. How can courage in a closed system be expected to endure?

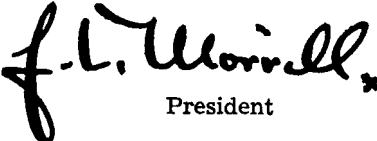
But time runs against all tyrannies, it has been said. That, too, is the lesson of history—and the reason for our faith in the genius of the American outlook—the genius of freedom: freedom for diversity and change and advance. It is a genius which instinctively we feel must out-run and outlast the monolithic tyranny of suppression, slave camps, and satellites which confronts our dynamic of freedom in this "divided world."

Yet faith without works can be defeated. The energies of educated men and women are required. It is the provision of education for Minnesota youth, and for youth throughout the entire nation, that reveals our American faith in "the improbability of mankind," through education, as Horace Mann declared.

The University seeks to provide for its students that kind of educa-

tion which emphasizes individual dignity and responsibility. It seeks to instill a knowledge of their heritage and their traditions, emphasizing always the tradition of free choice; the right and the responsibility of the people as a whole to mark out the nobler destiny of the nation.

In conclusion—I cannot close this biennial report without, as in years past, paying special tribute to my colleagues on the staff. It is they, taken as a group, who make the University. The loyal and effective service of those who constitute the administrative staff, the faculty, and the civil service staff is heartening to contemplate. Their devotion to the University of Minnesota transcends the difficulties and problems of any biennium, and carries us forward with confidence to meet the duties of the coming day.


President

Minneapolis, Minnesota
June 30, 1952

SIGNIFICANT EVENTS, ACTIVITIES, AND ACTIONS, 1950-52

Long Service of Regent Snyder Ends—Fred B. Snyder, who resigned his chairmanship of the Board of Regents on September 22, 1950, and his membership on the Board itself on January 22, 1951, died on February 14, 1951, just one week before reaching his ninety-second birthday. Mr. Snyder graduated from the University of Minnesota in 1881. He served continuously on the Board of Regents from his first appointment in 1912 until ill health forced him to resign in 1951. In 1914 he was made the Board's chairman, which post he held until 1950.

Tributes to Mr. Snyder's service to the University and to the State came from many sources: from the Minnesota Legislature, from the Board of Regents, from President J. L. Morrill, and from the Minnesota Daily. As a tribute to him at the time he relinquished the chairmanship of the Board of Regents, his colleagues gave unanimous approval to the following resolution, an engrossed copy of which was presented to him on October 7, 1950:

WHEREAS, For thirty-eight years our venerable friend and esteemed colleague, Fred B. Snyder, has diligently and valiantly served as a member of the governing Board of this University, of which he is one of the oldest, and one of the most distinguished graduates; and

WHEREAS, For the past thirty-six years he has sat with enviable distinction at the head of the Board table as its presiding officer, and from that vantage point of trust and honor has guided the deliberations of his colleagues with rare wisdom and acumen that have won the unstinted admiration and respect of all those who have worked with him; and

WHEREAS, Through all the vicissitudes that inevitably beset the fortunes of any human institution, including those of higher education, he has served as a powerful and stabilizing influence in the course of this University's development to its present place of eminence and prestige; and has set the living example of integrity upon which public confidence in the institution must depend; and

WHEREAS, His judgments of men and of their times have invariably proved sound and productive, to the great good of the University to which he has so selflessly devoted himself; and

WHEREAS, Above all else, he is to us a man of appealing charm and utter graciousness, beloved by all who know him; therefore,

Be It Resolved, That we, his colleagues on the Board of Regents, respecting as always his judgment and his wishes, do with profound regret accept his decision to lay down the responsibilities of the Board chairmanship; but we do rejoice that his vast experience and accumulated wisdom will still be available for guidance in our deliberations as he continues to sit with us. His epic service we recognize and honor with this resolution; his continuing friendship and partnership we cherish regardless of the position of his chair at the table. As evidence of all of this, and of the feelings that words cannot encompass, we place this action in our minutes, to become a part of the enduring record of the University of Minnesota, with which the whole life of the Honorable Fred B. Snyder has become so indelibly associated.

A further honor came to Regent Snyder when the 1951 Gopher, the yearbook of the University of Minnesota, was dedicated to him with the following inscription:

This book is dedicated to the memory of FRED BEALE SNYDER, chairman of the Board of Regents for 36 years, first "BUILDER OF THE NAME" and servant to the University for 70 years.

Mr. Snyder was graduated from the University in 1881 and began actively supporting the institution in 1896. He was named to the Board of Regents in 1912. He served as chairman from 1914 to 1950, when he retired because of what he called "advancing old age."

When Mr. Snyder received the first BUILDER OF THE NAME award in 1948, President James Lewis Morrill declared, "No person who will ever receive this award will ever surpass the high standard set by this pioneer recipient."

On his death, February 14, 1951, the sentiments of Minnesotans were expressed by President Morrill: "The University is the sum of the efforts of all who love and support it. In this regard, Mr. Snyder has set the standard for all time."

Regent Lobb Resigns—Albert J. Lobb, another Minnesota son, and a member of the Board of Regents since 1939, resigned his post on January 25, 1951. His resignation was necessitated by his retirement from the Mayo Clinic in Rochester and his removal from Minnesota.

Mr. Lobb is a graduate of Ripon College and holds degrees from the University of Chicago and the University of Wisconsin. In 1911 he entered the University of Minnesota and a year later received his bachelor of law degree.

From 1914-18 he was lecturer on law and political science at the University of Minnesota, and from 1918-20 he was assistant professor in the Department of Political Science. In 1920 he became comptroller of the University and served until 1952.

Mr. Lobb's service to the University and to the State was recognized by the following resolution adopted by the Board of Regents on February 9, 1951:

WHEREAS, The Honorable Albert J. Lobb has, upon retirement from his position of responsibility and trust at the Mayo Clinic, now left the State of Minnesota, and

WHEREAS, This change in residence regrettably brings to an end a long and useful career that has been intimately identified with the academic life of the University of Minnesota, first as a student, then as lecturer and assistant professor in the Department of Political Science, and

WHEREAS, The Honorable Albert J. Lobb for a period of years also served with wisdom and influence as comptroller of the University and secretary of its Board of Regents, and

WHEREAS, Since 1939 he has sat as a member of the Board and with unusual acumen and insight has contributed from his broad experience and deep understanding of University affairs to the deliberations of its governing body, therefore

Be It Resolved, That his colleagues on the Board of Regents do by this formal action record their profound sense of personal loss because of his resignation as one of their number, and do likewise give expression to their sincere and deep-felt admiration for the faithful and constructive manner in which their associate of more than a decade has unfailingly met the responsibilities and the obligations imposed upon him as a Regent, and

Be It Further Resolved, That the Regents express to their friend and colleague, the Honorable Albert J. Lobb, the sincere hope that wherever he may be, he will continue to use his great and varied talents in serving other causes and institutions as ably and as richly as he has served the State of Minnesota and the University of Minnesota, and

Be It Further Resolved, That the Regents extend to him, and to Mrs. Lobb, their best wishes for continuing years of health and happiness, as evidence of which they direct their Secretary to incorporate this resolution into the permanent University records, and to send an appropriate copy of it to their much respected associate.

University Treasurer Retires—The Board of Regents on May 11, 1951 approved unanimously a resolution commending Julius A. Schmahl for his services to the University as treasurer until his retirement in January, 1951. The text of the resolution follows:

WHEREAS, After a career of notable and distinguished public service that has spanned half a century, the Honorable Julius A. Schmahl has voluntarily relinquished his high and trusted position as treasurer of the State, and

WHEREAS, He has likewise served the University of Minnesota as its treasurer; and

WHEREAS, This service to the University of Minnesota stretches back over the years—from January 1927 to January 1937, and from January 1939 to January 1951—to constitute a record conspicuous in fidelity; and

WHEREAS, His colleagues on the Board of Regents wish formally to give voice to all that he has meant both to the University and to the State of which it is a part; therefore

Be It Resolved, That the Regents of the University do hereby express to Julius A. Schmahl their grateful admiration for his years of public service, their sincere respect for all qualities that have contributed so constructively to his career as a servant of the State, and their appreciation to him for the scrupulous and conscientious conduct of University affairs; and the Regents further direct that this action be spread upon their minutes as a permanent record to mark the close of an illustrious and memorable career.

Dedications of Buildings—The first new building to be dedicated during the biennium was Peters Hall, the new home of the divisions of Animal and Poultry Husbandry. Named for the late W. H. Peters, for many years chief of the Division, the new structure on the St. Paul Campus was dedicated on August 30, 1950. Principal speakers were Charles E. Snyder, editor, *Chicago Daily Drovers Journal*, and L. E. Card, chairman, Department of Animal Science, University of Illinois.

Three buildings completed for departments of the Institute of Technology were dedicated on October 5, 1950. They were designated Aeronautical Engineering, Mechanical Engineering, and Chemical Engineering. The funds for their construction were provided by the 1943, 1945, 1947, and 1949 sessions of the Legislature. All three were dedicated in connection with the Institute of Technology Alumni Association Dinner, at which time Outstanding Achievement Awards were conferred on seventeen graduates of the various engineering fields at the University. One of their number, Elmer W. Engstrom, E. E., 1923, vice president of the Radio Corporation of America in charge of research, gave the principal address of the evening on the topic, "Television."

Dedication of the new Veterinary Clinic Building on the St. Paul Campus took place on October 25, 1950. Principal speaker at the dedication was Dean W. A. Hagen, Cornell University, Ithaca, New York. The new building constitutes the first unit in a series of three planned for the needs of the new

School of Veterinary Medicine. The other two are a Basic Science Building and an Animal Disease Diagnostic Laboratory. A generous legislative appropriation has been made for the former, but no funds have yet been made available for the latter.

The new building for the Students' Health Service was dedicated at a dinner held in Coffman Memorial Union on November 7, 1950. Speaking at the ceremonies were Vice President Malcolm M. Willey, Dean Harold S. Diehl, Ray M. Amberg, director, University Hospitals; and Dr. Ruth E. Boynton, director, Students' Health Service. The dedicatory address was given by Dr. William P. Shepard, third vice president of the Metropolitan Life Insurance Company and director of its Health and Welfare Division for the Pacific Coast, president of the American Public Health Association, and a former president of the National Tuberculosis Association. Dr. Shepard, a graduate of the Medical School of the University of Minnesota and for three years assistant director of its Students' Health Service, spoke on the topic, "Student Health and Public Health."

Parents Day, February 1, 1951 was selected for the dedication of Centennial Hall, the new dormitory for men. The dedicatory address on this occasion was given by Theodore C. Blegen, dean of the Graduate School. The dedication took place at a luncheon in the dining room of the new structure at which were present parents, special guests, and residents of the Hall.

The Centennial Charter Day Convocation, February 15, 1951, in Northrop Auditorium was made the occasion of the re-naming and dedication of the Law School building as Fraser Hall, in honor of Dean Emeritus Everett Fraser. On that occasion also Dean Emeritus Fraser was the recipient of the honorary degree, doctor of laws.

The Medical Sciences Building was formally dedicated as Owre Hall at a Centennial Dinner on February 17, 1951 in Coffman Memorial Union. This honored Alfred Owre, dean, College of Dentistry, 1905-27. Outstanding Achievement Awards were presented on this occasion to 12 distinguished graduates of this college. Dr. Keyworth, an outstanding specialist in prosthetic dentistry and a vitalizing influence in dental organizations, responded for himself and the others honored with awards. Dr. Myron Lusk, president, Minnesota State Dental Association, presented the plaque naming the building Owre Hall. Dr. William H. Crawford, dean, School of Dentistry, presided.

The new Variety Club Heart Hospital was dedicated at a dinner in Coffman Memorial Union on March 20, 1951. Speakers included Senator Edward J. Thye, Marc Wolf, international chief barker, Variety Clubs International; Arthur W. Anderson, chief barker, Variety Club of the Northwest; Loretta Young, motion picture star; President J. L. Morrill; and Dean Harold S. Diehl. William McCraw, international executive director, Variety Clubs International, served as master of ceremonies.

This unique hospital, the only one of its kind in the nation devoted exclusively to heart ailments, was erected at a cost of \$1,500,000, about one-third of which was provided by the Variety Club of the Northwest. Federal funds provided \$600,000. Miscellaneous gifts, allotments from various University funds, and a \$100,000 bank loan, to be repaid from the hospital's income, make up the balance.

Two new buildings, Ford and Johnston Halls, were dedicated on April 19, 1951, at a dinner in Coffman Memorial Union. Both were made the occasions for three-day educational conferences. In the case of Ford Hall, the Conference was entitled, "The Social Sciences—Mid Century." This was appropriate because Ford Hall brings together in one building office, classroom, and laboratory space for a group of social science departments formerly widely scattered over the campus. The Conference theme for Johnston Hall was "The Individual and Liberal Education." The latter building provides vitally needed classroom, seminar, and office space, together with added library reading and reference room space. Also brought together in Johnston Hall are the administrative offices of the College of Science, Literature, and the Arts, the Summer Session, and the Graduate School.

Ford Hall was named in honor of President Emeritus Guy Stanton Ford who, after serving for 25 years as dean of the Graduate School, completed his University service as president for three years. Prior to that time he had acted as president during two different years while President Lotus D. Coffman was on leave. Dr. Ford's field was history and his eminence in that

field is attested to by his appointment, upon his retirement from the University, to the post of executive secretary of the American Historical Association, a post he still holds after eleven years.

Johnston Hall honors the late John B. Johnston who served the University for 30 years, the last 23 (1914-37) as dean of the College of Science, Literature, and the Arts.

Ray J. Quinlivan, chairman of the Board of Regents, presided at the joint dedication ceremonies. President J. L. Morrill gave the address of dedication and presented Outstanding Achievement Awards. Other speakers included Governor Luther W. Youngdahl, President Emeritus Guy Stanton Ford, and Dr. William Anderson, professor of political science.

The Senior Hall at the Northwest School and Experiment Station in Crookston was renamed Selvig Hall and re-dedicated on June 30, 1951. This was done to honor Conrad George Selvig, who served as superintendent of the school and station from 1910-1927.

The new East Wing of the Home Economics Building was dedicated at ceremonies in Coffey Hall Auditorium on the evening of May 9, 1952. Speakers at the ceremonies included President J. L. Morrill, Dean Henry Schmitz, and President Emeritus Walter C. Coffey. Dean Clyde H. Bailey presided. The dedicatory address was given by Florence Fallgatter, head, Department of Home Economics Education, Iowa State College; former chief, Home Economics Service, U. S. Office of Education; and president, American Home Economics Association. Her topic was "Looking Forward in Home Economics."

Outstanding Achievement Awards were presented at the ceremonies to two distinguished home economics graduates, one of whom was Miss Fallgatter.

Mayo Memorial Ground-Breaking Ceremonies—A most significant event which took place as the biennium opened was the breaking of ground for the new Mayo Memorial. These ceremonies which occurred on the morning of July 5, 1950 culminated long years of effort and preparation. The new building, erected as a tribute to the Doctors Mayo, will provide widely-expanded facilities and opportunities for medical teaching and research, and when completed will benefit the citizens of the entire nation. It will do even more, for the influence of the work this structure will make possible is certain to have world-wide implications.

National Conferences on Campus—Eleven biological societies—represented by some 1,200 scientists—participated in a three-day national conference of the American Institute of Biological Sciences, September 10-12, 1951. There were general meetings, a symposium, a forum, separate meetings for the individual societies, and a "smoker." Keynoting the opening general session was Alan Waterman, director, National Science Foundation, who spoke on the topic, "Federal Support of Fundamental Research in the Biological Sciences."

Preceding the conference, several of the societies met for field trips and tours in Duluth, Minneapolis, and at the University's biological station in Itasca State Park.

The National Student Association Congress held its fourth annual meeting August 20-29, 1951. Five hundred students represented the nation's colleges at the meeting. These campus leaders formulated policies for the ensuing year's student program in four major areas: student life, educational problems, international affairs, and organizational affairs.

Some 30 foreign students, touring the United States under the auspices of the Young Adult Council of New York, visited the sessions. Three other conferences were held on the campus in advance of the congress: a meeting of student body presidents, the national executive committee of NSA, and a student organization conference.

A Conference on Savings, Inflation, and Economic Progress was held on May 15-17, 1952. Arranged by the School of Business Administration with the cooperation of a sponsoring group of leading Minnesota financial, business, and industrial firms, the Conference brought together a group of outstanding experts from government, business, and the universities in this country and abroad for the exchange of ideas and information on the savings problem and to point the way for further analysis, research, and economic policy. The

proceedings are to be published as a book by the University of Minnesota Press.

Special Regents' Citations—Two friends and benefactors of the University of Minnesota were awarded Special Regents' Citations on February 28, 1952. They were: Mrs. George P. Tweed of Duluth, donor of the George P. Tweed Memorial Art Collection and of her Duluth home in which to house it; and Earle Brown, donor of his ancestral home, Brooklyn Center Farm, as the site of a proposed structure to house agricultural short courses. In these two citations, in addition to an enumeration of the contributions of these two donors to the University and to the state, was included a pledge by the Regents of "their humble and vigilant stewardship."

Outstanding Achievement Medals Conferred—On December 11, 1947, the Board of Regents authorized the establishment of a special University medal to be conferred upon graduates and former students of the University for distinguished achievement in the years since they were enrolled at the University. Since their establishment, these awards have been made by the Board of Regents to individuals recommended by the Committee on University Honors and approved by the Administrative Committee. The Committee on University Honors makes its selections from recommendations coming to it from alumni and various other sources.

Two alumni received these awards during the 1946-48 biennium and three during 1948-50.

The University's Centennial Year, which was celebrated during the current biennium, was made the occasion for the award of a number of Outstanding Achievement Medals to graduates and former students—particularly but not exclusively from the earlier years. The number of these honors conferred is consequently far in excess of the number for the previous two bienniums—the first in which awards were made. In this way it was possible to make a beginning in affording recognition to many graduates reaching back to before the beginning of this century.

These awards were not made on a single occasion but were presented at such appropriate times during the biennium as at dedications, conferences, banquets, or other ceremonies of the University, its colleges, or other administrative units.

The list of those 129 distinguished graduates and former students who were the recipients of Outstanding Achievement Medals during the biennium follows:

Fred L. Adair, Med.
Lawrence B. Anderson, I.T.
Joseph Warren Beach, S.L.A.
John H. Beaumont, Ag.
Walter Clarence Beckford, I.T.
James Ford Bell, S.L.A.
Selmer H. Berg, Ed.
Guy Norman Bjorge, I.T.
Carl William Blegen, S.L.A.
Geoffrey B. Bodman, Ag.
Dr. William Braasch, Med.
Peter John Brekhus, Dent.
Stanley J. Buckman, Ag.
Irma L. Bullard, Ed.
Frank E. Burch, Med.
Charles E. Campton, Ed.
Earl B. Carlson, Med.
Norris K. Carnes, Ag.
Albert J. Chesley, Med.
Earl Gladstone Constantine, Bus.
John Hubert Craigie, Ag.
George E. Crossen, Phar.
Prudence Cutright, Ed.
George Myron Damon, Dent.
Farrington Daniels, I.T.
John W. Dargavel, Phar.
Hal Downey, Med.
Marion L. Edman, Ed.
Rudolph T. Elstad, I.T.
Elmer W. Engstrom, I.T.
Theodore A. Erickson, Ag.
Henry A. Erikson, S.L.A.
Max Emil Ernst, Dent.
Alvin C. Eurich, Ed.

Florence Alberta Fallgatter, Ag.
Donald N. Ferguson, S.L.A.
Nathaniel S. Finney, S.L.A.
Paul Darwin Foote, S.L.A.
Francis Cowles Frary, I.T.
Edward Monroe Freeman, S.L.A.
Rudolph K. Froker, Ag.
Reynold Clayton Fuson, I.T.
Samuel C. Gale, S.L.A.
Bernice D. Gestie, Ed.
George F. Ghostley, Ag.
Henry Samuel Godfrey, Dent.
Robert O. Green, Dent.
Laurence Randolph Hafstad, I.T.
Olaf J. Hagen, Med.
Arlid E. Hansen, Med.
Henry Gadd Harmon, Ed.
Thomas Bradford Hartzell, Dent.
Hazel Maurine Hatcher, Ag.
Alma C. Haupt, Med.
Arthur T. Hertig, S.L.A.
Herman E. Hilleboe, Med.
Lorin Baird Hodgson, Dent.
Thorfin Rusten Hogness, I.T.
Frederick Lawson Hovde, S.L.A.
Samuel Leslie Hoyt, I.T.
Arthur R. Hustad, S.L.A.
Elmer Hutchisson, S.L.A.
Leo A. Isaac, Ag.
Carlyle F. Jacobsen, S.L.A.
F. Roy Johnson, Ag.
Roland Greffthen Keyworth, Dent.
Paul Ernest Klopsteg, I.T.
John William Knutson, Dent.

Arthur O. Lampland, Bus.
 Herbert L. Lewis, S.L.A.
 Major General Richard Clark Lindsay, I.T.
 Georgina L. Lommen, Ed.
 George A. Lundberg, S.L.A.
 Harold Lloyd Lyon, S.L.A.
 Mary L. Matthews, Ag.
 Agnes McCarthy, Ed.
 Pearl L. McIver, Med.
 Franklin R. McMillan, I.T.
 Edith L. McNaughtan, Ed.
 Ernest O. Melby, Ed.
 Bradshaw Mintener, Law
 William DeWitt Mitchell, Law
 George Wagner Morgan, S.L.A.
 Arthur H. Motley, S.L.A.
 Frank W. Moudry, Phar.
 Will M. Myers, Ag.
 Charles Nelson, Dent.
 Robert J. Noble, Ag.
 Willard C. Olson, Ed.
 Henry J. Otto, Ed.
 Francis W. Peck, Ag.
 James E. Perkins, Med.
 John S. Pillsbury, Law
 Edith L. Potter, Med.
 Oliver S. Powell, Bus.
 Samuel R. Powers, Ed.
 Paul W. Rhame, I.T.
 Carl Otto Rosendahl, S.L.A.
 Henry A. Scandrett, Law

Harold Schoelkopf, S.L.A.
 Dean M. Schweickhard, Ed.
 William Rees Sears, I.T.
 Paul Francis Sharp, Ag.
 George Milson Shepard, I.T.
 William P. Shepard, Med.
 Albert M. Snell, Med.
 Charles Leissring Sommers, S.L.A.
 Leonard B. Sperry, I.T.
 William H. Stead, Bus.
 Lewis Riddell Stowe, Dent.
 August L. Strand, Ag.
 Leif John Sverdrup, I.T.
 Neil H. Swanson, S.L.A.
 Pearl Pauline Swanson, Ag.
 Harold W. Sweatt, S.L.A.
 Sidney A. Swensrud, Bus.
 Conrad Taeuber, S.L.A.
 Marvin R. Thompson, Phar.
 Edward L. Tuohy, Med.
 Merle Antony Tuve, I.T.
 Arnulf Ueland, S.L.A.
 Thomas F. Wallace, S.L.A.
 James Milton Walls, Dent.
 Walter H. Wheeler, I.T.
 Archie Dell Wilson, Ag.
 Mildred Weigley Wood, Ag.
 Louise L. Wright, S.L.A.
 Malcolm Glenn Wyer, S.L.A.
 Edgar F. Zelle, S.L.A.

University Receives "Minneapolis Award"—The Minneapolis Chamber of Commerce, at its annual meeting, May 31, 1951, presented the "Minneapolis Award" to the University in recognition, during its Centennial Year, of its activities and services to the people of the state and this community. The contribution which the University makes through teaching and research was also recognized in the granting of the award.

Formal Acceptance of Tweed Gift—The formal opening of the George P. Tweed Memorial Art Collection and its acceptance by the Board of Regents took place at the home of Mrs. George P. Tweed in Duluth on September 20, 1950. This art collection, assembled during a thirty-year period, is the first large gift of works of art received by the University. The collection, her home, and the lot on which it stands, were given to the University by Mrs. Tweed, as a memorial to her late husband, noted Duluth civic leader, industrialist, and banker. The Tweed collection will be used by students and faculty members in the departments of art both in Minneapolis and at Duluth; and will also be shown publicly in Duluth and throughout the state.

University Designated Brucellosis Center for the United States—The Board of Regents on January 12, 1951 accepted the invitation of the World Health Organization and the Food and Agriculture Organization to be the Brucellosis Center for the United States. This action was taken by the adoption of the following resolution:

WHEREAS, The University of Minnesota has for many years diligently carried forward pioneering studies of the dread disease, brucellosis; and

WHEREAS, The outcomes of this fundamental research, involving the significant collaboration of the Medical School and the School of Veterinary Medicine, have attracted world-wide attention; and

WHEREAS, The World Health Organization and the Food and Agriculture Organization are now cooperating in the establishment of a number of Brucellosis Centers for research and training in various countries of the world; and

WHEREAS, The University of Minnesota, by virtue of its contributions to science and human well-being through its brucellosis studies, has been invited by the World Health Organization and the Food and Agriculture Organization to be the Brucellosis Center for the United States; therefore

Be It Resolved, That the Regents of the University of Minnesota, upon recommendation of the Dean of Medical Sciences, the Dean of the Department of Agriculture, and the President, fully mindful of the honor and trust that are implicit in this invitation, do accept it; and in so doing they express in this formal manner their pride and their satisfaction in the fact that the outstanding scholarship and scientific achievement of members of the staff have resulted for the University of Minnesota in this signal recognition.

University Receives Peruvian Flag—A Peruvian flag was officially presented to the University at a meeting of the Board of Regents on February 8, 1952. The presentation was made by Esther Noreiga del Valle, a graduate

student at the University from Peru and also a teaching assistant in the Department of Romance Languages. Miss del Valle was designated to perform this service by the Peruvian minister of education as a token of good will and common purpose.

Staff Members in Who's Who—The Board of Regents was informed on September 22, 1950 that the names of 352 staff members of the University appeared in the 1950-51 edition of *Who's Who in America*.

Defense Mobilization Committee Appointed—A University Committee on Defense Mobilization was appointed by President J. L. Morrill on January 29, 1951. The President, in appointing the Committee, of which he named Dean Julius M. Nolte as chairman, suggested three areas of probable activity: the area of instruction and training, the general area of protection, and the area concerned with information. These areas were kept in mind in making appointments to the Committee, members of which included three students as well as representatives of the faculty and Civil Service staff.

University Sanitary Code—A Sanitary Code for the University was approved by the Board of Regents on February 9, 1951. Text of the code is as follows:

- I. Purpose.
The purpose of the Sanitary Code is to establish the standards for environmental health and sanitation that are considered necessary for the reasonable protection of health and safety of University students and staff wherever they may be participating in an officially recognized University activity and to designate the University Health Service as the official Health Department for the University, responsible for the inspection and enforcement of all provisions of the Sanitary Code and of such rules and regulations as may from time to time be adopted.
- II. Water Supplies.
All water supplies used for human consumption, domestic or culinary purposes by recognized University groups participating in official University activities shall meet the standards of the Minnesota State Department of Health, and the United States Public Health Service Drinking Water Standards.
- III. Plumbing.
All plumbing in University occupied buildings shall be installed, maintained, and operated in accordance with the requirements of the Minnesota Plumbing Code.
- IV. Sewerage, Sewage and Industrial Wastes.
All waste water, including domestic and industrial wastes, originating on University grounds or buildings shall be collected, conveyed, treated, and disposed of in accordance with the standards of the Minnesota State Department of Health and the requirements of the State Pollution Control Commission.
- V. Food, Food Handling, Food Processing, Distribution.
All food service facilities owned or operated by the University for University students and staff or operated by an officially recognized University group of students or staff shall be constructed, maintained and operated in accordance with the requirements of the United States Public Health Service Ordinance and Code Regulating Eating and Drinking Establishments and the Minnesota State Department of Health.
- VI. Milk and Milk Products.
All milk and milk products served to University students and staff in food service facilities defined in Section V of this Code shall be produced, processed, and distributed in accordance with the standards for Grade A pasteurized milk specified in the United States Public Health Service Standard Milk Ordinance and Code or equivalent State and City Ordinances.
- VII. Student Housing.
All student housing, including dormitories, fraternities, sororities, cooperatives, and student-occupied rooms in privately owned residences, is to be inspected in accordance with accepted standards for safety and sanitation.
Compliance with such minimum standards as may be designated shall be a requirement for approval of student housing by the proper authorities of the University.
- VIII. University Building Sanitation.
Standards of sanitation for University owned or occupied buildings may be established.
- IX. Swimming Pools, Bathing Places.
Swimming pools and bathing places owned or operated by the University or privately owned but used by officially designated University groups of students and/or staff shall be constructed, operated and maintained in accordance with the American Public Health Association report on Recommended Practice for Design, Equipment and Operation of Swimming Pools and Other Public Bathing Places, and the standards of the Minnesota State Department of Health.
- X. Industrial Health and Sanitation.
Health and safety standards for industrial type operations may be established for the shops, laboratories, garages, storerooms, and other University owned or operated buildings having such student or staff activity that such hazards may be reasonably anticipated.

- XI. Lighting, Heating, Ventilation.**
Standards for adequate lighting, heating and ventilation of University owned or operated buildings, or buildings owned or operated by others specifically for use by University students or staff may be established.
- XII. Refuse Disposal—Garbage and Rubbish.**
Sanitation standards for storage, collection, and disposal of refuse from University operated buildings may be established.
Private contractors collecting, conveying, and disposing of garbage from University operated food services must comply with such regulations as may be established.
- XIII. University Sanitation Council.**
A University Sanitation Council shall be established. The members of this Council shall include the following or their designated representatives:
Supervising Engineer—Physical Plant
Director—Service Enterprises
University Advisory Architect
Chairman—All-University Committee on Industrial Safety
Dean of Students
Director—School of Public Health
Director—University Health Service—Chairman

The University Sanitation Council shall have responsibility for drafting such rules and regulations as may be considered necessary to provide for the protection of health and safety of University students and staff. Such rules and regulations shall be submitted to the Board of Regents through regular University organization channels and, when approved by the Board of Regents, shall become a part of the Sanitary Code.

Cooperative Relationships with Students—The Board of Regents on May 11, 1951 approved the following policy statement pertaining to cooperative relationships with students:

The University of Minnesota has long been committed to the use of its full resources for the development of leadership and responsible citizenship in its students. In the midst of an ever broadening program of research and public service, this commitment to the instruction of youth remains a central objective.

Over the years the experiences of the administration and the staff working with students have demonstrated that responsible leadership can be developed by students. Moreover, consulting and sharing with students the background of University affairs and problems have served to develop a deeper loyalty to the University and have yielded continued high morale. It is also apparent that the cooperation of student organizations, such as the All-University Student Congress, has contributed significantly in the effective functioning of the many projects and activities sponsored by the University itself.

Such cooperative relationships are not easily attained for many reasons, among which faulty communication is of major significance. Experience indicates that a university functions best when mutual understanding and respect prevail among its many members, both staff and students. Indeed a major administrative need of any complex university involves the facilitation for more complete communication. In this undertaking more than negative avoidance of misunderstanding and friction is at stake. The development of positive and responsible leadership and citizenship is the goal to be attained.

It is therefore desirable that all members of the University endeavor to maintain cordial, friendly, and cooperative relationships between members of the staff on the one hand and responsible student leaders on the other.

Without implying that the ultimate authority for responsible decisions rests elsewhere than in the Board of Regents itself, by provisions of its basic charter, the Regents look with favor upon all efforts that are designed to improve the consultations, communications, and relationships between staff members and responsible student leaders. This statement is adopted to the end that encouragement may be given both to the staff members and the student leaders in their joint efforts to further the welfare and services of the University as an agency of the state.

Robeson Denied Use of University Facilities—Late in the spring of 1952, a small student group, Young Progressives of America, sought the use of University facilities for a concert by Paul Robeson. This request was denied by the dean of students and his action was sustained by the President.

The President, in a statement clarifying his reasons for denying the request, noted among other things, that

Mr. Robeson is an embittered, anti-American, anti-democratic propagandist. Ostensibly he would have been brought to the campus as a singer; actually he would be regarded as the clearly identified symbol of Soviet sympathies in this country and abroad.

I, for one, see no reason why the University should assist Mr. Robeson to raise money which, when he gets it, supports a program opposed to every democratic principle we are fighting as a nation to preserve. The student organization under the proposed concert arrangements was to receive only twenty-five dollars, the net proceeds then to be Mr. Robeson's. . . .

The University is the proper forum for the critical analysis of ideas, even hateful ones. The University welcomes the opportunity to proclaim and defend American ideals and to analyse the representations of those who would subvert them. That is the American, the Minnesota way. But the University strives to accomplish this in a straightforward manner and not by the device of one-sided and musically overtone propaganda from a concert platform. . . .

Students Adopt New Pledge—The opening convocation, October 4, 1951 witnessed the initial use of a new pledge which members of the student body,

including the entering freshmen and the other new students, read in unison. The text follows:

These truths will I profess:

That man by virtue of his reason may come to fuller knowledge of himself and grow to understand the nature of his world.

That so endowed he can unlock the secret of an atom or the universe and yet confess his true humility;

That as a student and a scholar I accept a solemn obligation to myself and to the whole community of men to free myself from ignorance and error; to find the way of wise and selfless service to the world.

Graduate School Tuition Scholarships—Twenty Graduate School tuition scholarships to be administered through the dean of the Graduate School and available to students who are citizens of the United States were authorized by the Board of Regents, December 14, 1951. This action was taken to provide for meritorious cases needing financial assistance no longer available because of the University's new policy of gradually eliminating tuition exemption for holders of scholarships, fellowships, and assistantships.

Regents' Work Scholarships Established—The Board of Regents on September 22, 1950 authorized the establishment of Regents' Work Scholarships, 32 of which were made available for the year, 1950-51. These scholarships are intended to provide for advance employment of students in various departments of the University, particularly for entering freshmen; they will guarantee to the student employee minimum earnings for a given period.

Faculty Retirement Plan Increased—The University Faculty Retirement Plan, originally established in 1935 and revised in 1948, was amended by action of the Board of Regents, July 6, 1951, to bring the retirement allowances more in line with the present buying power of the dollar. The text of the action provides for these changes:

1. That each retired professor, associate professor, assistant professor and instructor be granted an increase in retirement allowance effective July 1, 1951 as follows:

Retired Professor	\$200 per annum
Retired Associate Professor	250 per annum
Retired Assistant Professor	300 per annum
Retired Instructor	500 per annum

2. That the retirement allowance under the present plan be increased effective July 1, 1951 for the following ranks subject to the following maxima:

Professor (unchanged)	\$2,500 per annum
Associate Professor	2,150 per annum
Assistant Professor	1,800 per annum
Instructor	1,800 per annum

3. That the year following completion of the staff member's retirement program under the present plan, as set forth in paragraph two (2) above the staff member will be given the option of purchasing jointly with the University additional retirement units either up to \$5000 (one each year) or until the University's share of the annual premium has reached a figure \$250 in excess of the amount under the present completed plan.

That the additional retirement income so provided will be in addition to the retirement allowance available under the present plan.

That if the additional retirement income so provided to a present staff member at the time of this change is less than \$500 per annum, then the University Supplement (provided funds may permit) will be increased by an amount equal to 50% of the difference between \$500 and the amount of retirement income provided from the additional retirement contracts.

4. That if a staff member below the rank of professor purchases additional retirement units as described herein and subsequently receives a promotion in rank entitling him under the present plan to a higher retirement allowance, then any additional retirement unit as described herein shall be incorporated into his program in such amount as may be necessary to complete his program with the new rank under the present plan.
5. That the University Master Contract with the insurance companies be amended to include any of the above changes pertaining to it.

Academic Leaves for Military Service—A statement of policy governing leaves of absence for military service for the academic staff was adopted by the Board of Regents, February 9, 1951. The text of the statement follows:

Eligibility for leave for military service.

For the duration of the present emergency, members of the academic staff of the rank of instructor and above, who are on full-time, regular appointments, shall be granted a leave of absence without pay during their active service with the military forces of the United States.

Leaves of absence for academic staff members on less than 100 per cent time, or on non-regular appointments, will be considered only on the basis of individual cases. (For definitions of regular appointment, see "Regulations Concerning Academic Tenure," Section 1a, 1b.)

Leaves of absence for military service should be dated to run concurrently with the fiscal year for A appointees, and concurrently with the academic year for B appointees; and may be renewed by the Regents each year at the time of approval of the annual budget.

Resumption of University service following military leave.

Upon completion of their military service, and subject to any then existing financial limitations, academic staff members will be reappointed to their former positions provided:

- a. They have an honorable discharge or other form of release in which satisfactory service in the Armed Forces is indicated;
- b. That they give notice of their intention to return to the University service within 90 days following the discharge from the military;
- c. That they are physically and mentally qualified to carry on the work of the University in the position from which they were granted leave of absence.

Tenure Implications.

During military leave, staff members without permanent tenure do not accumulate additional tenure rights.

In the event of any necessary retrenchment that affects a position from which a staff member is on leave, budgetary adjustments will be made in so far as possible to reflect the tenure status of individuals.

Autonomy for General College—The General College Advisory Committee, originally appointed by the President in 1940, with a revision of personnel and function in 1945, was discharged on March 26, 1951. During its existence, this Committee rendered important service to the College and to the University as a whole, notably in the realm of policy-making. The discharge of this Committee gives the General College full status as an administrative and instructional unit and places on its faculty full responsibility for curriculum and policy making.

Pharmacy Students Disciplined—Early in February, 1952, students, faculty, and friends of the University were shocked and distressed to learn that certain students, all of them members of a pharmacy fraternity, had confessed to premeditated cheating in examinations and to the theft of University property. Immediate action was taken and suspension from the University was recommended by the All-University Disciplinary Committee in the cases of the four students most seriously implicated.

Three of the four, upon request, were granted individual hearings before a special faculty committee appointed by the President. This Committee talked with each student, examined his past record, and considered such evidence as character references from the student's home community in an effort to provide every chance for rehabilitation. In no case was the name of a student involved made public.

The Committee's decision, approved by the President, left unchanged the action taken in the cases of two of the students. The third student was placed under strict supervision on disciplinary probation, was given an "F" in each of the two examinations in which he used illegally obtained advance information, was required to pay for a stolen chair, and was denied active participation in the Phi Delta Chi fraternity during the time he continues at the University.

Duluth Branch Constitution—The Board of Regents, on July 6, 1951, approved the following Constitution for the faculty of the Duluth Branch:

I.

The University of Minnesota, Duluth Branch, is an integral part of the University of Minnesota, subject to the control of the Board of Regents and of the Senate of the University of Minnesota in accordance with the constitution of that Senate.

All powers granted to the faculty at the University of Minnesota, Duluth Branch, are subject to the limitations imposed by the Senate of the University of Minnesota upon a college or the faculty of a college of the University of Minnesota.

II.

The title of this body shall be "The Faculty of the University of Minnesota, Duluth Branch," hereinafter referred to as the Faculty.

III.

The voting membership of the Faculty shall be composed of the President of the University, the Provost, the Academic Dean, professors, associate professors, assistant professors, instructors, and lecturers, holding at least two-thirds time appointments with the University.

Counselors and librarians holding full-time appointments, the Business Manager, the Senior Engineer, and other staff members who may from time to time be approved by a simple majority vote of the Faculty for participation, may attend faculty meetings, participate in discussions, and serve on Faculty committees, but shall not be entitled to vote at Faculty meetings.

The Secretary of the Faculty shall submit to all voting members each October an official roster of the voting membership of the Faculty.

IV.

Officers of the Faculty shall include the Provost as Chairman, a Vice-Chairman, and a Secretary. The terms of office of the Vice-Chairman and of the Secretary shall be one year; they shall be elected by the voting members of the Faculty; the foregoing three officers, together with the immediate past Vice-Chairman, shall constitute an Executive Committee, with the Provost acting as its chairman.

A meeting of the Faculty shall be held between September fifteenth and November first of each year for the purpose of electing officers. New officers shall assume office at the meeting of the Faculty following their election.

V.

The Provost, as administrative officer of the University of Minnesota, Duluth Branch, responsible directly to the President of the University of Minnesota, shall represent the Duluth Branch with respect to all matters arising between the Duluth Branch and the general governing authorities of the University of Minnesota.

The Provost shall act as Chairman of the Faculty; shall call meetings of the Faculty at least once during each quarter of the academic year and also upon the written request of five voting members; shall appoint the members of the Administrative Committee; shall name and determine the functions of divisional chairmen; shall name department heads upon the recommendation of divisional chairmen; may recommend curriculum changes to the Curriculum Committee; and shall appoint special committees for specific functions, to be discharged upon completion of their assignments.

VI.

A simple majority of the total voting membership of the Faculty shall constitute a quorum. Unless otherwise provided for in this Constitution or in the By-Laws, all action by the Faculty shall require the approval of a simple majority of a quorum.

VII.

In the absence of the Provost, the Vice-Chairman shall preside at meetings of the Faculty and of the Executive Committee. The Secretary shall record minutes of all meetings of the Faculty and of the Executive Committee.

VIII.

The Faculty shall have control over and be responsible for entrance requirements, curricula, instruction, examinations, grading, degrees, discipline, student activities, athletics, and the library; these powers shall be exercised only within the framework of general policies established or to be established by the Board of Regents for the University as a whole and by the Senate of the University of Minnesota.

IX.

The administrative organization of the Faculty shall be in the form of such divisions as are established by the Provost. At present these divisions are: (a) Education and Psychology; (b) Humanities; (c) Science and Mathematics; and (d) Social Studies.

X.

This Constitution may be amended by a two-thirds majority vote of all voting members of the Faculty, provided that the proposed amendment has been presented at a previous meeting of the Faculty or has been presented in writing to each voting member individually at least five days prior to the vote on its adoption.

XI.

This Constitution shall be effective as of the date of its adoption by a two-thirds majority vote of all persons eligible under its provisions to become voting members of the Faculty, as well as of the governing authorities of the University of Minnesota.

Special Rate for Research Fellows—A special class of research fellows with compensation below the "floor" normally applicable to that rank was approved by the Board of Regents on May 9, 1952. The necessity for these appointments was due to the increase in the number of sponsored research contracts and the desirability of using in such projects individuals not primarily students. The text of the action follows:

Voted to authorize the appointment on a T basis of research fellows at a rate intermediate between the established floor for instructors and the established rate for research assistants, each such case to be on special recommendation of the appropriate dean, and with the proviso that such appointments will not be made for less than 80 per cent time.

Law School Requirements Modified—Completion of the work of the Law School by students entering with the B.A. degree was raised from three to three and one-half years by the Board of Regents, December 14, 1951. The text of the action reads:

Voted on recommendation of the Law School faculty and the president that beginning with students entering the Law School in the fall of 1953, those with a B.A. or equivalent degree be required to attend the Law School for three and one-half years before qualifying for the LL.B. degree.

Standards Laboratory Established—The Board of Regents approved the establishment of a Standards Laboratory in the Institute of Technology on

September 29, 1951. This laboratory offers to University departments, other educational institutions throughout the state, and local industries, a service essentially equivalent to that afforded by the National Bureau of Standards in Washington. Initially the new laboratory provided calibration service within these areas of fundamental measurement: mass, temperature, length, voltage, and resistance. One of the policies of the laboratory bars the acceptance of any off-campus work which could be undertaken by other local agencies.

Class Hours Changed—First hour classes on the Minneapolis campus, which were shifted from 8:30 a.m. to 8 a.m. as a World War II measure, were returned to 8:30 a.m. by action of the University Senate, effective in the fall of 1951. Classes on the St. Paul campus, which normally have been scheduled 15 minutes earlier than those on the Minneapolis campus, were given a half-hour leeway to make them fit the present schedule of the Intercampus Trolley, and now begin at 8 a.m.

Fraternalities and Sororities as Housing Units—The Board of Regents on January 12, 1951 approved the following statement of policy concerning the housing of students as it relates to fraternalities and sororities:

Some questions have been raised regarding the expansion of University-owned housing facilities for students. This may be interpreted as a step in eliminating fraternalities and sororities as housing units. The Regents wish to make it clear that such is not the intent of the University.

Fraternalities and sororities are an integral part of the University both as student organizations and housing units.

In the expansion and uses of University student housing facilities, every consideration will be given to the equities and interests of fraternalities and sororities.

Tenure Status of County Extension Agents—The Board of Regents, on March 14, 1952, amended the earlier action of June 16, 1945, at which time they had made county extension agents "eligible to appropriate academic rank" by exempting them from the application of the tenure regulations. The amended action now reads as follows:

Voted on recommendation of the President that County Extension Agents in the Agricultural Extension Service shall be eligible to appropriate academic rank upon recommendation of the Director of the Agricultural Extension Service, the Dean of the Department of Agriculture, and the President of the University, and approval by the Regents, with the understanding that the Regulations Governing Academic Tenure in the University will not apply to county extension agents in the Agricultural Extension Service.

New Degrees Approved—Three new degrees were authorized by the Board of Regents during the biennium. On April 13, 1951, authority was given to confer the degree, doctor of veterinary medicine, on students who complete the prescribed preveterinary curriculum of 90 credits and the four-year professional program in veterinary medicine. On January 11, 1952, authority was given to transfer the administration of the master of forestry degree from the College of Agriculture, Forestry, Home Economics and Veterinary Medicine to the Graduate School. On the same date, authority was given to grant the degree, bachelor of science, to students who have successfully completed two years of pre-dental work and two years in dentistry, the degree to be optional on the part of the student.

Applied Mortuary Science Curriculum Revised—Authority was granted by the Board of Regents on April 13, 1951 to revise the applied mortuary science curriculum in the General Extension Division to a two-year basis and to authorize the granting of the appropriate degree, associate in mortuary science.

Vacation Allowance for "A" Appointees—The Board of Regents on May 11, 1951, approved the following policy covering vacation allowance for members of the academic staff on "A" appointments:

Vacations are granted members of the staff for the purpose of rest and recuperation. The following general principles are set down for the guidance of departments:

Vacations are not cumulative.

No vacation leave is granted until the staff member has served for one academic year, or in the case of county and other agents, its equivalent. It is the expectation that vacation will be taken promptly at the conclusion of the year of service on which it is based. If for any reason, personal or involving the convenience of the department, it becomes advisable to postpone the taking of the vacation for more than the equivalent of one quarter into the subsequent year, this postponement should be made a matter of written understanding between the staff member and the department head, and a copy

should be transmitted through channels to the office of the president. Dates of the postponed vacation should be specified.

If a staff member terminates his University position before he has completed a second year of service at the University, and he has not used any part or all of his vacation of the previous year, allowance for this unused vacation period should be made in fixing the date of termination. Likewise, following a year of service, termination should take into account earned vacation in any year provided the staff member has served a minimum of six months in that year, for which two weeks of vacation are allowable. No further pro-rating is allowable. In no case can the staff member be allowed more than four weeks of vacation time upon termination.

Psycho-Educational Clinic—A change in name from the Child Study Center to the Psycho-Educational Clinic was authorized by the Board of Regents on September 22, 1950. The change in the name of this unit of the College of Education was made in order to avoid confusion with the name of another University unit, the Institute of Child Welfare.

Change in Graduation Requirements at Outlying Schools of Agriculture—The Board of Regents, on March 9, 1951, approved modification of the existing practice at the outlying schools of agriculture so that, in the future, a diploma will be granted upon completion of the four-year course of study. Authority was given also to grant a certificate at the completion of three years of study if subsequent study by the faculties and administrative officers indicates the desirability of such action.

Mayo Foundation Retirement—The Board of Regents on June 16, 1951 took the following action:

Voted that members of the University staff in the Mayo Foundation, who also serve the Mayo Clinic, shall retire from the University service upon retirement from the Mayo Clinic, effective July 1, 1951.

The Use of Northrop Memorial Auditorium—The following memorandum was given administrative approval by the President, June 4, 1952, and is designed to be of assistance in the scheduling of events in Northrop Memorial Auditorium, particularly in those instances in which the University is co-sponsor with noncampus organizations:

Northrop Memorial Auditorium is an attractive, centrally located structure, which makes it desirable for all kinds of meetings and leads to the constant request for its use by non-campus groups.

The actual schedule for Northrop is kept in the office of the Department of Concerts and Lectures, and any questions of policy or use, including proposed co-sponsorship, are referred to the Vice President, Academic Administration.

In the late spring of each year all University departments that regularly present events in Northrop confer and set up a master schedule. Included are Department of Concerts and Lectures, Audio-Visual Education Service, University Symphony and Chorus, University Band, and The Orchestral Association. Established dates such as convocations, commencements, baccalaureate, etc., are also entered.

Normally no problem is involved in the scheduling of these all-University dates, and no difficulties are encountered in scheduling other University events within the framework of these fixed dates. The auditorium is available for events that are sponsored by the University itself, sometimes on a no-rent basis, sometimes on an out-of-pocket reimbursement basis, sometimes on a fixed charge basis. This is determined in each instance by the nature of the event and whether there is an admissions charge or not.

Problems arise when it is proposed by some non-campus organization that it be permitted to use the auditorium. Here, a basic policy prevails: the auditorium, in conformity with Regents' action on the use of University buildings and facilities, is not made available to any non-campus group for its own purposes. This does not, however, preclude joint sponsorship by the University and a non-campus group of programs or events, with the further stipulation, however, that if admission is charged the proceeds must revert to the University and may not become available to a non-campus group for its own purposes.

Every case of proposed joint sponsorship introduces a problem of choice. Involved is the question of nominal as against real or genuine joint sponsorship. It should be a basic principle in making these individual decisions that the University should not become a joint sponsor of any program unless

the University itself, under other circumstances, would have had an effective interest in initiating and presenting the same program. It is the interest of the University that must be determinative.

The desirability of using Northrop Memorial Auditorium as against some other campus facility, even for an event that the University would gladly co-sponsor with a non-campus group, likewise involves a choice and rests on the predicted size of the audience. The judgment of the University on this point must be decisive.

With the foregoing considerations in mind, these further stipulations are introduced:

1. Normally no commitments for use of Northrop Memorial Auditorium on a co-sponsor basis will be made for a coming academic year until after the meeting in which the master schedule of University dates has been agreed upon by the interested departments, and thereafter no date for jointly sponsored use will normally be set more than three months in advance.
2. For any event that is jointly sponsored with a non-campus group, the University must be represented on the planning committee, and the clearance of the University representative shall be through the office of the Vice President, Academic Administration.
3. All arrangements for publicity of jointly sponsored events must be worked out with the University News Service, and the University reserves the right to veto any publicity plans or material.
4. In jointly sponsored events, there must be equal stress on University participation and the participation of the non-campus co-sponsor, and the University should normally be first mentioned.
5. No arrangements for broadcasting are to be made except by the University, working through the office of the Director of University Relations.
6. No printed programs carrying advertising are to be distributed at co-sponsored events, except as there is special prior arrangement and approval through the office of the Vice President, Academic Administration.
7. There will be no solicitation of funds, memberships, etc., at co-sponsored meetings.
8. No programs or other materials are to be sold at co-sponsored events (except in those traditional instances where such sales are an understood part of the activity of a traveling attraction, e.g., sale of opera librettos).
9. The University may normally expect that in co-sponsored programs, any out-of-pocket expense is a responsibility of the non-campus group, unless otherwise arranged.
10. The University's judgment must prevail as to the number and type of building staff required for safe and adequate operation of the building, and for police to direct traffic, and payment for such staff is considered part of the out-of-pocket expense of sponsoring the event.

The Case of Forrest Wiggins—On December 11, 1951, Forrest G. Wiggins, an instructor in the Department of Philosophy, together with 38 other instructors, was given the customary notice that he would not be reappointed for the academic year, 1952-53. This procedure followed to the letter the provisions of the Tenure Code, which had been drafted originally by a faculty committee, and approved by the University Senate and the Board of Regents.

Normally this would have closed the matter. Instead, the action received a great deal of publicity, including many allegations, which created confusion and misunderstanding in the minds of many, because the University, in accordance with the tenure regulations, gave no reasons for Mr. Wiggins' non-reappointment.

Charges were made that the University's action was taken because he was a Negro, a radical, that academic freedom was violated, and that political pressure was primarily responsible.

President J. L. Morrill answered these charges fully in a letter addressed to a "Student Action Committee" which had asked for clarification of the grounds on which the action had been taken. The text of this letter appeared

in full in the January, 1952 issue of *Minnesota Chats*. A few particularly pertinent quotations from that letter follow:

As to racial discrimination, I can only say as forcefully and as sincerely as I know how that this has never been a factor, directly or by implication, in discussions pertaining to the tenure status of Dr. Wiggins. . . .

No comments, representations, or pressures by any member of the Legislature were responsible for the decision to terminate next June the probationary appointment of Dr. Wiggins. . . .

The principle of academic freedom is not involved in the Wiggins case, although I do believe that the fundamental integrity of the University tenure code is involved. . . .

Failure on the part of a staff member during the probationary period to measure up to the scholarly standards of a great university is not a matter of violated academic freedom. . . . Status on this staff must be achieved in terms of the provisions of our tenure code; to have it achieved through outside pressure would undermine not only the code but the very integrity of the University and its staff. . . .

President Morrill also pointed out the many opinions on Dr. Wiggins' scholarship which entered into the final decision. These included denials of a recommendation for promotion in rank and a merit salary increase by a former dean of the Arts College, appraisals by the present dean, staff members of the Department of Philosophy, and related departments. There was an impressive consensus that Dr. Wiggins had not demonstrated the qualities of scholarship that should be sought by the University of Minnesota. This was the basis, and the sole basis, on which the notice of non-reappointment was based.

An investigation into the matter was made also by the University of Minnesota Chapter of the American Association of University Professors. In a report dated January 14, 1952, its Committee on Academic Freedom and Tenure concluded a 19-page report with this statement: "It is recommended that no further action be taken at this time for the reason that the evidence does not establish violation of academic freedom."

The Case of Joseph Weinberg—The Board of Regents on June 16, 1951, took the following action in the case of Assistant Professor Joseph W. Weinberg:

Voted unanimously on recommendation of the President to approve the discontinuance of Professor Joseph W. Weinberg's duties in teaching and research, effective June 15, 1951, but with salary during the academic year 1951-52, in conformity with his B appointment and in compliance with Regent regulations requiring one year's notice to assistant professors on probationary status in the event of non-reappointment.

The Regents' action resulted from Professor Weinberg's refusal to cooperate with a federal grand jury by declining to give testimony, and not on the basis of charges of perjury or Communist Party membership. The Regents and the University administration took the position that Professor Weinberg's behavior was incompatible with his obligations as a member of the faculty and as an employee of the state.

Suit Involving Religious Activity—A suit was filed against the University of Minnesota in the District Court, Fourth Judicial District of Minnesota on June 5, 1951, by W. L. Sholes. Mr. Sholes, a Minneapolis attorney, petitioned the Court for a writ of mandamus to require the University to stop all religious activity on its campus.

Mr. Sholes' petition, which the trial judge found "broad, general, and somewhat nebulous," seems aimed at the work of the religious foundations, the use of University buildings for meetings of student religious groups or religious observances of any kind, the employment of a coordinator of students' religious activities, and the use of religious census cards.

The attorney general of the state of Minnesota, entrusted with the defense of the University in all legal actions, argued the case with the assistance of two professors from the University's Law School in Hennepin County District Court in September, 1951. Judge William C. Larson on October 1, 1951 ruled in favor of the University principally for two reasons: first, before a citizen can challenge judicially the University's program, he must bring the matter to the Board of Regents and exhaust his remedies before the Board; and secondly, a writ of mandamus is not the correct type of proceeding under the circumstances.

Judge Larson, in his memorandum, did, however, comment parenthetically that ". . . I very much doubt that there is anything in the Constitutions of

the United States or Minnesota that requires the University to be wholly a Godless institution . . ."

Mr. Sholes appealed the case to the Minnesota Supreme Court and that body affirmed the decision of the Trial Court on May 2, 1952, and denied rehearing on July 17, 1952. The basis of the Court's unanimous decision was that petitioner had not given the Board of Regents an opportunity to act before commencing his lawsuit. The Court said: "It is only a matter of fairness and a requirement of orderly procedure that a citizen be required to seek relief from the Board of Regents before proceeding in court." No review by the United States Supreme Court having been sought, the decision is now final.

Since the disposition of the Sholes case was not based upon an analysis of the substance of the University's program, there is always the possibility that the governing body of the University of Minnesota or of any other publicly-supported college or university may be petitioned at some future date to cease and desist from all support of religious activities on the campus. It is also possible that other lawsuits will be commenced, although it seems to be the settled law of Minnesota that no law suit will be entertained unless the citizen first complies with the above mentioned requirement of fairness and orderly procedure.

"Little Hoover" Commission Report—The 1949 Legislature created the Efficiency in Government Commission with instructions to undertake studies of the various state departments and report its findings to the 1951 Legislature.

In the fulfillment of the Commission's mandate, its director and members of his staff met with University officials to go over with them the forms which had been prepared for completion by the various departments of the state government and to reach agreement concerning the nature of the University's responses to the various items about which data had been requested. Voluminous materials on all aspects of the many and varied activities of the University were accordingly compiled and submitted to the Commission. In the report subsequently issued by the Commission and submitted to the Legislature, fourteen of the recommendations relating to education concerned the University.

As the biennium closed, these recommendations were being carefully studied by administrative officers at all levels, and a "Progress Report" on the Administrative Improvement of the University of Minnesota, as recommended by the "Little Hoover" Commission, was being compiled for submission to the Administrative Committee, the Regents, and the Citizens' Committee on Efficiency in Government.

UNIVERSITY PERSONNEL

CHANGES IN PERSONNEL

Board of Regents

The Board of Regents at its meeting September 22, 1950, accepted the resignation of Fred B. Snyder as first vice-president and chairman of the Board, and Ray J. Quinlivan replaced him.

Mr. Snyder resigned as a member of the Board of Regents on January 22, 1951. He died February 14, 1951.

Albert J. Lobb, upon his retirement from the Mayo Clinic and departure from the state, resigned as a member of the Board January 25, 1951.

The 1951 Legislature appointed Lester A. Malkerson, Minneapolis, to succeed Regent Snyder (term to expire 1953) and Dr. Charles W. Mayo, Rochester, to succeed Regent Lobb (term to expire 1953). The following were re-elected to six-year terms expiring 1957: James F. Bell, Minneapolis; Richard L. Griggs, Duluth; George W. Lawson, St. Paul; and Ray J. Quinlivan, St. Cloud.

Faculties

RETIREMENTS, 1950-51

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:

Walter C. Alvarez, professor emeritus of medicine, Mayo Foundation (1926-51).
Donald C. Balfour, professor emeritus of surgery, Mayo Foundation (1915-51).
William L. Benedict, professor emeritus of ophthalmology, Mayo Foundation (1917-51).

Harry H. Bowing, professor emeritus of radiology, Mayo Foundation (1923-51).
Albert C. Broders, professor emeritus of pathology, Mayo Foundation (1920-51).

Melvin S. Henderson, professor emeritus of orthopedic surgery, Mayo Foundation (1915-51).

Norman M. Keith, professor emeritus of medicine, Mayo Foundation (1920-51).
Edward C. Kendall, professor emeritus of physiological chemistry, Mayo Foundation (1915-51).

Henry W. Meyerding, professor emeritus of orthopedic surgery, Mayo Foundation (1918-51).

Robert D. Mussey, professor emeritus of obstetrics and gynecology, Mayo Foundation (1915-51).

Gordon B. New, professor emeritus of laryngology, oral and plastic surgery, Mayo Foundation (1915-51).

Russell M. Wilder, professor emeritus of medicine, Mayo Foundation (1920-51).
Della G. Drips, associate professor emeritus of gynecology, Mayo Foundation (1926-51).

Bert E. Hempstead, associate professor emeritus of otolaryngology, Mayo Foundation (1922-51).

David M. Berkman, assistant professor emeritus of medicine, Mayo Foundation (1921-51).

Dorr F. Hallenbeck, assistant professor emeritus of medicine, Mayo Foundation (1918-51).

Monte C. Piper, assistant professor emeritus of medicine, Mayo Foundation (1922-51).

Harry G. Wood, assistant professor emeritus of medicine, Mayo Foundation (1927-51).

William S. Cooper, professor emeritus of botany, College of Science, Literature, and the Arts (1915-51).

William F. Holman, supervising engineer and professor emeritus, Physical Plant (1909-51).

- William M. Sandstrom, professor emeritus of agricultural biochemistry, Department of Agriculture (1923-51).
- Harold A. Whittaker, professor emeritus, School of Public Health (1922-51).
- F. Denton White, professorial lecturer emeritus, School of Dentistry (1921-51).
- Chester L. McNelly, associate professor emeritus of agricultural extension, Department of Agriculture (1927-51).
- Rae T. LaVake, clinical assistant professor emeritus of obstetrics and gynecology, Medical School (1912-51).
- James B. McNulty, assistant professor emeritus of agricultural extension, Department of Agriculture (1931-51).
- Robert I. Rizer, clinical assistant professor emeritus of medicine, Medical School (1915-51).
- Charles E. Smyithe, assistant professor emeritus, College of Pharmacy (1915-51).
- James B. Torrance, assistant professor emeritus of agricultural engineering, Department of Agriculture (1916-51).
- Clifton A. Boreen, clinical instructor emeritus of medicine, Medical School (1913-51).

RETIREMENTS, 1951-52

- John H. Allison, professor emeritus of forestry, Department of Agriculture (1912-52).
- Moses Barron, professor emeritus of medicine, Medical School (1912-52).
- Willard L. Boyd, professor emeritus of veterinary medicine, Department of Agriculture (1911-52).
- George P. Conger, professor emeritus of philosophy, College of Science, Literature, and the Arts (1920-52).
- Ernest M. Hammes, Sr., clinical professor emeritus of psychiatry and neurology, Medical School (1913-52).
- Herbert K. Hayes, professor emeritus of agronomy and plant genetics, Department of Agriculture (1915-52).
- James A. Johnson, clinical professor of surgery, Medical School (1916-52).
- E. Mendelssohn Jones, clinical professor emeritus of surgery, Medical School (1916-52).
- Frank H. MacDougall, professor emeritus of physical chemistry, Institute of Technology (1915-52).
- Bruce D. Mudgett, professor emeritus of economics, School of Business Administration (1919-52).
- John de J. Pemberton, professor emeritus of surgery, Mayo Foundation (1918-51).
- Jean F. Piccard, professor emeritus of aeronautical engineering, Institute of Technology (1936-52).
- Andrew T. Rasmussen, professor emeritus of anatomy, Medical School (1916-52).
- Edward H. Sirich, professor emeritus of romance languages, College of Science, Literature, and the Arts (1914-52).
- George M. Stephenson, professor emeritus of history, College of Science, Literature, and the Arts (1914-52).
- Orville M. Kiser, associate professor emeritus, Department of Agriculture (1917-52).
- Ernest T. F. Richards, clinical associate professor of medicine, Medical School (1912-52).
- James C. Sanderson, associate professor of mathematics and mechanics, Institute of Technology (1911-52).
- Amy E. Armstrong, assistant professor emeritus of English, College of Science, Literature, and the Arts (1921-52).
- Ralph W. Dawson, assistant professor emeritus of zoology, College of Science, Literature, and the Arts (1923-52).
- C. Alford Fjeldstad, clinical assistant professor emeritus of otolaryngology, Medical School (1923-52).
- Richard A. Graves, assistant professor, School of Business Administration (1920-52).
- Lewis B. Hessler, assistant professor of English, College of Science, Literature, and the Arts (1918-52).

- Edward Schons, clinical assistant professor emeritus of radiology and physical medicine, Medical School (1946-52).
Alexander R. Stewart, clinical assistant professor emeritus of pediatrics, Medical School (1920-52).
Mary J. Kulstad, instructor emeritus, Department of Agriculture (1926-52).

RESIGNATIONS, 1950-51

- Francis J. Braceland, professor of psychiatry, Mayo Foundation, effective June 30, 1951, to accept position as psychiatrist-in-chief, Institute of Living, Hartford, Connecticut.
Clarence Dennis, professor of surgery, effective June 15, 1951, to accept the chairmanship, Department of Surgery, State University of New York.
Allan Hemingway, professor, School of Veterinary Medicine, effective at close of 1950-51, to accept headship, Physiology Department, University of California, Los Angeles.
Nathaniel B. Nichols, professor of electrical engineering, effective June 15, 1951, to accept the managership, Research Division, Raytheon Manufacturing Company, Waltham, Massachusetts.
Robert Penn Warren, professor of English, effective June 15, 1951, to accept a professorship, School of Drama, Yale University.
Edgar B. Wesley, professor of education, effective June 15, 1951, to change residence and devote all of his time to writing and lecturing.
George M. Briggs, associate professor of poultry husbandry, effective June 30, 1951, to accept position as biochemist in experimental biology and medicine, Bethesda, Maryland.
Miles E. Cary, associate professor of education, effective at close of 1950-51, to become director, Ethical Culture Schools, New York City.
Donald L. Dailey, associate professor-superintendent, North Central School and Station, effective January 31, 1951.
Austin F. Henschel, associate professor, Laboratory of Physiological Hygiene, School of Public Health, effective March 15, 1951, to accept the directorship, Climatic Research Laboratory, War Department, Lawrence, Massachusetts.
Allan J. Hill, Jr., clinical associate professor of pediatrics, effective December 15, 1950, to accept a position as professor of pediatrics, University of Oregon.
Thomas H. Ige, associate professor of social studies, Duluth Branch, effective at close of 1950-51, to accept a position as industrial relations analyst, Wage Stabilization Board.
Arthur Kirschbaum, associate professor of anatomy, effective June 15, 1951, to accept headship, Anatomy Department, University of Illinois.
Thomas R. Klingel, associate professor of civil engineering, effective at close of 1950-51, to accept position as principal assistant engineer, Soo Line Railroad.
Lyndell B. Scott, associate professor of sociology, effective June 15, 1951, to accept a position in the School of Social Service, University of Chicago.
Morse J. Shapiro, associate professor, Postgraduate Medical Education, effective June 15, 1951, to enter practice in Los Angeles, California.
Benjamin Spock, associate professor of psychiatry, Mayo Foundation, effective June 30, 1951, to accept a professorship, University of Pittsburgh.
Paul R. Wendt, associate professor of education, effective at close of 1950-51, to accept a position as associate professor of education and director of audio-visual education, San Francisco State College.
Rugnar Almin, assistant professor, College of Pharmacy, effective at close of 1950-51, due to ill health.
Lyla M. Anderson, assistant professor and dormitory director, School of Agriculture, effective June 15, 1951.
Orville A. Becklund, assistant professor of electrical engineering, effective June 15, 1951, to accept a position with General Instrument Company, Dallas, Texas.
Kenneth F. Bulkley, clinical assistant professor of surgery, effective June 30, 1951.
Julian DeGray, assistant professor of music, effective June 15, 1951.

- Harold A. Delp, assistant professor of education, effective at close of 1950-51, to accept position as coordinator of educational activities, Training School, Vineland, New Jersey.
- Raymond M. Dodson, assistant professor of organic chemistry, effective June 15, 1951, to enter industrial work.
- Donald W. Dostal, clinical assistant professor, School of Dentistry, effective June 15, 1951, to devote full time to dental practice.
- R. Jane Dyer, assistant professor, School of Social Work, effective June 15, 1951.
- Sallie A. Fisher, assistant professor of science and mathematics, Duluth Branch, effective June 15, 1951, to accept a position as research chemist, Rohm & Haas, Philadelphia, Pennsylvania.
- Ezra W. Geddes, assistant professor of social studies, Duluth Branch, effective at close of 1950-51, to accept a position at University of New Mexico.
- Carl O. A. Graffunder, assistant professor, School of Architecture, effective June 15, 1951.
- Ross E. Graves, assistant professor of mathematics, effective June 15, 1951, to change residence.
- Neal Gross, assistant professor of sociology, effective June 15, 1951, to accept a position at Harvard University.
- Richard F. Hammel, assistant professor, School of Architecture, and assistant advisory architect to Board of Regents, effective March 15, 1951, to accept position as consulting architect, St. Paul Board of Education.
- William W. Harris, assistant professor of aeronautical engineering, effective June 15, 1951.
- Betty R. Horenstein, assistant professor of professional education, Duluth Branch, effective June 15, 1951, to accept a position at the University of Nebraska.
- Reuben C. Kravik, assistant professor and coordinator of advanced standing and admissions, Institute of Technology, effective June 30, 1951.
- George W. Lones, assistant professor of bacteriology and immunology, effective November 15, 1950, to accept a position as scientist, United States Public Health Service.
- Esther M. Munter, assistant professor-district supervisor of home agent work, Department of Agriculture, effective August 26, 1950, to devote full time to homemaking.
- Bruce C. Netschert, assistant professor of social studies, Duluth Branch, effective June 15, 1951, to continue research work for the Paley Commission, Washington, D. C.
- Thomas B. O'Dell, assistant professor, School of Veterinary Medicine, effective April 14, 1951, to accept a position with Irwin, Neisler and Company, Decatur, Illinois.
- James A. Richards, Jr., assistant professor of science and mathematics, Duluth Branch, effective June 15, 1951, to accept a research position, American Viscose Corporation, Marcus Hook, Pennsylvania.
- John Roning, assistant professor of physical education and athletics, effective February 28, 1951, to accept position as athletic director and head football coach, Utah State Agricultural College, Logan.
- Marvin A. Sandgren, assistant professor of mechanical engineering, effective at close of 1950-51, to accept a position as mechanical engineer, General Mills Aeronautical Laboratory.
- George P. Svendsen, Jr., assistant professor of physical education and athletics, effective June 30, 1951, to assume partnership in Svendsen Electric Company.
- Marion W. Thornton, assistant professor, School of Public Health, effective June 15, 1951.
- Evelyn N. Thorson, assistant professor, Department of Agriculture, effective July 31, 1950, to become parish worker at Gloria Dei Lutheran church, St. Paul, Minnesota.
- Jeanette Vroom, assistant professor, School of Public Health, effective June 15, 1951.
- Maurice N. Walsh, assistant professor of neurology and psychiatry, Mayo Foundation, effective at close of 1950-51, to accept a position with Veterans Administration Hospital, Topeka, Kansas.
- Samuel Weiner, assistant professor of science and mathematics, Duluth Branch, effective June 15, 1951.

RESIGNATIONS, 1951-52

- Henry Schmitz, dean and professor of forestry, College of Agriculture, Forestry, Home Economics, and Veterinary Medicine, effective July 31, 1952 to accept the presidency, University of Washington, Seattle.
- John D. Camp, professor of radiology, Mayo Foundation, effective July 31, 1951, to enter practice in Los Angeles, California.
- Jacques Fermaud, professor of Romance languages, effective March 15, 1952.
- Stefan A. Riesenfeld, professor of law, effective June 15, 1952, to accept a professorship, University of California, Berkeley.
- Minard W. Stout, professor and principal, University High School, effective at close of 1951-52 to accept the presidency, University of Nevada.
- Charles E. Swanson, professor, School of Journalism, effective June 15, 1952, to accept position as research professor, Institute of Communications Research, and assistant dean, Division of Communications, University of Illinois.
- Franklin H. Top, professor of epidemiology, School of Public Health, effective June 15, 1952, to accept chairmanship, Department of Hygiene and Preventive Medicine, State University of Iowa.
- George N. Aagaard, director and associate professor, Continuation Medical Education, effective December 31, 1951, to become dean of Southwestern Medical School of the University of Texas, Dallas, Texas.
- David C. Bartelma, associate professor of physical education and athletics, effective June 15, 1952, to accept a position at the University of Colorado.
- William J. Cromartie, associate professor and hospital bacteriologist, effective January 15, 1952, to accept a position at the University of North Carolina, Chapel Hill.
- Rudolf Engel, clinical associate professor of pediatrics, effective July 1, 1952, to join the Cleland Clinic, Oregon City, Oregon.
- Byron E. Hall, associate professor of medicine, Mayo Foundation, effective July 1, 1952, to join Stanford University School of Medicine.
- Roger W. Howell, associate professor of psychiatry and neurology, effective December 31, 1951, to accept a professorship of mental health, University of North Carolina.
- George W. Lundberg, clinical associate professor, School of Dentistry, effective December 15, 1951, to devote all his time to private practice.
- Douglas G. Marshall, associate professor of sociology, effective June 15, 1952, to accept a position at the University of Wisconsin.
- Charles D. May, associate professor of pediatrics, effective June 15, 1952, to become professor and head of pediatrics, State University of Iowa.
- Kyle R. Morris, associate professor of art, effective June 15, 1952, to accept a position at the University of California.
- Bernard J. O'Loughlin, associate professor of radiology, effective at close of 1951-52, to accept a position at University of California Medical School, Los Angeles.
- Lloyd B. Ritchey, associate professor of mechanical engineering, effective April 11, 1952, to accept a position with E. I. du Pont Company.
- Stephen H. Spurr, associate professor, School of Forestry, effective at close of 1951-52, to accept a position with the University of Michigan School of Natural Resources.
- David State, clinical associate professor of surgery and director, Cancer Institute, effective at close of 1951-52, to establish a practice in California.
- Margaret S. Taylor, director of public health nursing and associate professor, School of Public Health, effective June 15, 1952.
- Harold F. Wahlquist, clinical associate professor, School of Dentistry, effective at close of 1951-52 to devote all his time to private practice.
- James S. Webb, associate professor of electrical engineering, effective at close of 1951-52, on account of ill-health.
- Robert W. Winslow, associate professor of music education, effective June 15, 1952, to become bandmaster at Long Beach, California, State College.
- Forrest H. Adams, assistant professor of pediatrics, effective June 30, 1952, to accept a position at the University of California, Los Angeles.
- John W. Andeen, assistant professor of mechanical engineering, effective at close of 1951-52, to accept position as educational director, Babcock & Wilcox Company, New York City.

- Philip K. Arzt, clinical assistant professor of psychiatry and neurology, effective June 30, 1952, to devote more time to private practice.
- Nicholas L. Barbarossa, assistant professor of civil engineering, effective at close of 1951-52, to accept position in Office of the Missouri River Division, Corps of Engineers.
- Jacob E. Bearman, assistant professor of mathematics, effective June 15, 1952, to remain indefinitely in Israel.
- Theresa A. Bell, assistant professor of physical education for women, effective at close of 1951-52.
- Albert L. Burroughs, assistant professor of entomology and economic zoology, effective September 15, 1951, to accept a position with U. S. Public Health Service, Thomasville, Georgia.
- Dwight L. Burton, assistant professor of English, University High School, effective June 15, 1952, to accept a position at Florida State University.
- John L. Imhoff, assistant professor of mechanical engineering, effective December 15, 1951, to accept the headship, Industrial Engineering Department, University of Arkansas.
- Harry W. Johnson, assistant professor of professional education, Duluth Branch, effective at close of 1951-52, to go to Wisconsin State Teachers College, Milwaukee.
- William H. Kelly, assistant professor of anthropology, effective June 15, 1952.
- Leonard S. Laws, assistant professor of mathematics and mechanics, effective June 15, 1952, to continue graduate work at Michigan State College.
- Robert M. Lindquist, assistant professor of mechanical engineering, effective at close of 1951-52, to accept a position with General Mills, Inc.
- Charles U. Lowe, assistant professor of pediatrics, Kellogg Foundation for Postgraduate Education, effective September 30, 1951, to accept position as associate professor of pediatrics, University of Buffalo.
- Helen H. Matheis, extension specialist home furnishings-assistant professor, effective June 30, 1952.
- David A. McConaughy, assistant professor, Duluth Branch, effective December 15, 1951, to accept a position with Central Intelligence Agency, Washington, D. C.
- Mary M. Miller, assistant professor-extension economist in home management, Department of Agriculture, effective October 16, 1952, to retire under the Federal Retirement system.
- Genevieve F. Miner, assistant professor, School of Social Work, effective at close of 1951-52, to accept position as casework supervisor, Family Service Society, Stamford, Connecticut.
- Norman C. Nagle, assistant professor, School of Architecture, effective June 15, 1952, to become assistant director, Walker Art Center, Minneapolis.
- William A. Peterson, clinical assistant professor, School of Dentistry, effective at close of 1951-52, to accept a commission in the Dental Corps, U. S. Navy.
- Kurt Reichert, assistant professor and chief psychiatric social worker, University of Minnesota Hospitals, effective April 22, 1952, to accept a position with the U. S. State Department in Germany.
- Margaret W. St. George, assistant professor of art, Duluth Branch, effective at close of 1951-52, to accept a position at College of the Pacific, Stockton, California.
- Eugene F. Seehafer, assistant professor, School of Journalism, effective April 15, 1952, to accept a position with the Columbia Broadcasting System, Chicago, Illinois.
- Robert B. Sutton, research associate and assistant professor, Bureau of Institutional Research, effective June 15, 1952, to accept a position at Ohio State University.
- Arthur W. Swanstrom, clinical assistant professor, School of Dentistry, effective at close of 1951-52, for active duty in the Navy.
- De Lloyd G. Ulander, clinical assistant professor, School of Dentistry, effective at close of 1951-52, to devote all of his time to private practice.
- Francis M. Walsh, clinical assistant professor of ophthalmology, effective June 30, 1952, to devote all of his time to private practice.
- Alvar A. Werder, assistant professor of bacteriology and immunology, effective at close of 1951-52, to go to University of Kansas Medical School.
- John R. Wolff, Jr., assistant professor of mechanical engineering, effective June 15, 1952.

APPOINTMENTS, 1950-51

Professors

- Isaac J. Armstrong as director-professor, Department of Physical Education and Athletics for Men.
B.S. 1923, Drake University.
- Oswald H. Brownlee as professor, School of Business Administration.
B.S. 1938, Montana State College; M.S. 1939, University of Wisconsin; Ph.D. 1945, Iowa State College.
- Kenneth C. Davis as professor of law.
B.A. 1931, Whitman College (Walla Walla, Washington); LL.B. 1934, Harvard University.
- Wesley E. Fesler as head football coach and professor, Department of Physical Education and Athletics for Men.
B.S. 1932, M.A. 1939, Ohio State University.
- Lester E. Hanson as professor of animal husbandry.
B.S. 1936, University of Minnesota; M.S.A. 1937, Ph.D. 1940, Cornell University.
- Emory N. Kemler as professor of mechanical engineering.
B.S. (M.E.) 1927, M.E. 1932, University of Kansas; M.S. 1931, Ph.D. 1934, University of Pittsburgh.
- Benjamin J. Lazan as professor of mathematics and mechanics.
B.S. (M.E.) 1938, Rutgers University; M.S. 1939, Harvard University; Ph.D. 1942, Pennsylvania State College.
- David W. Louisell as professor of law.
B.S.L. 1935, LL.B. 1938, University of Minnesota.
- Ralph E. Montonna as professor of mechanical engineering and director, Engineering Experiment Station.
B.S. 1916, Syracuse University; Ph.D. 1924, Yale University.
- Nathaniel B. Nichols as professor of electrical engineering.
B.S. 1936, Central Michigan College of Education; M.S. 1937, University of Michigan.
- Lewis Thomas as professor of pediatrics and medicine, American Legion Memorial Research Fund (to direct scientific research on rheumatic fever and cardiovascular diseases in children in the Department of Pediatrics and Variety Club Heart Hospital).
B.S. 1933, Princeton University; M.D. 1937, Harvard University Medical School.
- Franklin H. Top as professor of epidemiology, School of Public Health and Department of Pediatrics.
B.A. 1925, Calvin College (Grand Rapids, Michigan); M.D. 1928, University of Pennsylvania Medical School; M.P.H. 1935, Johns Hopkins School of Hygiene and Public Health.
- Dana Young as professor of applied mechanics in mechanical engineering.
B.S. 1926, M.S. 1930, Yale University; Ph.D. 1940, University of Michigan.

Associate Professors

- Joe R. Brown as associate professor of neurology, Mayo Foundation.
B.A. 1933, M.D. 1937, State University of Iowa; M.S. 1943, University of Minnesota.
- Clarence L. Cole as associate professor and superintendent, North Central School and Station.
B.S. 1929, Michigan State College; M.S. 1936, University of Minnesota.
- Ormond S. Culp as associate professor of urology, Mayo Foundation.
B.A. 1931, Ohio Wesleyan University; M.D. 1935, Johns Hopkins University.
- Lawrence C. Kolb as associate professor of psychiatry, Mayo Foundation.
B.A. 1932, Trinity College, Dublin University; M.D. 1934, Johns Hopkins University.
- Herman C. Lichstein as associate professor of bacteriology and immunology.
B.A. 1939, New York University; M.S.P.H. 1940, Sc.D. 1943, University of Michigan.

Ruth Palmer as associate professor of professional education, Duluth Branch.
B.S. 1931, New York State College of Home Economics, Cornell University; M.S. 1935,
Ph.D. 1951, Cornell University.

Stephen H. Spurr as associate professor, School of Forestry.
B.S. 1938, University of Florida; M.F. 1940, Ph.D. 1950, Yale University.

Assistant Professors

Lyla Mae Anderson as assistant professor and dormitory director, School of
Agriculture.

B.A. 1945, University of Minnesota; M.A. 1947, Northwestern University.

John M. Blair as assistant professor of physics.

B.S. 1940, Oklahoma A & M College; Ph.M. 1942, University of Wisconsin; Ph.D.
1947, University of Minnesota.

Grace D. Brill as assistant professor-extension nutritionist in agricultural
extension.

B.S. 1931, M.S. 1932, Kansas State College.

Heinz H. Bruhl as clinical assistant professor of pediatrics.

M.D. 1927, University of Freiburg.

Maurice F. Connery as assistant professor, School of Social Work.

B.A. 1940, Johns Hopkins University; M.S. 1947, New York School of Social Work,
Columbia University.

Monroe D. Donsker as assistant professor of mathematics.

B.A. 1944, M.A. 1946, Ph.D. 1949, University of Minnesota.

Edward O. D. Downes as assistant professor of music.

Studied at Columbia College, University of Paris, University of Munich, Harvard
University.

Earl C. Elkins as assistant professor of physical medicine, Mayo Foundation.

B.S. 1927, Buena Vista College (Storm Lake, Iowa); M.D. 1933, University of Minne-
sota.

Rudolf Engel as clinical assistant professor of pediatrics.

M.D. 1928, University of Munich (Bonn, Germany).

Virginia R. Field as assistant professor, School of Public Health.

B.S. 1933, M.S. 1936, Western Reserve University.

Sallie A. Fisher as assistant professor in chemistry, Duluth Branch.

B.S. 1945, M.S. 1946, Ph.D. 1949, University of Wisconsin.

William W. Fletcher as assistant professor of speech.

B.A. 1940, M.A. 1947, University of Washington; Ph.D. 1950, Northwestern University.

Marthella J. Frantz as assistant professor of cancer biology.

B.S. 1945, University of Toledo; Ph.D. 1949, University of Minnesota.

Ezra W. Geddes as assistant professor of social studies, Duluth Branch.

B.S. 1942, M.S. 1946, Utah State Agricultural College; Ph.D. 1950, Cornell University.

Richard F. Hammel as assistant professor, School of Architecture and assistant
advisory architect to Board of Regents.

B.Arch. 1944, University of Minnesota; M.Arch. 1947, Harvard University.

LeRoy D. Hedgecock as assistant professor of audiology, Mayo Foundation.

B.S. 1936, Washington University, St. Louis; M.A. 1939, Colorado State College of
Education; Ph.D. 1949, University of Minnesota.

Albert G. Hess as assistant professor of music, Duluth Branch.

Ph.D. 1933, University of Leipzig, Germany.

Herbert S. Isbin as assistant professor of chemical engineering.

B.S. 1940, M.S. 1941, University of Washington; Sc.D. 1947, Massachusetts Institute
of Technology.

Loyal A. Johnson as assistant professor of civil engineering.

B. Agr. Eng. 1934, University of Minnesota.

- Thomas F. Wagner as assistant professor of linguistics and comparative philology.
B.A. 1940, Niagara University; M.A. 1942, Fordham University; Ph.D. 1950, Yale University.
- Joseph P. McKenna as assistant professor of economics, School of Business Administration.
B.S. 1946, M.A. 1950, Harvard University.
- Clark H. Millikan as assistant professor of neurology, Mayo Foundation.
M.D. 1939, University of Kansas.
- Ruth H. Richards as assistant professor of physical education for women, Duluth Branch.
B.E. 1936, Winona State Teachers College; M.S. 1942, Wellesley College.
- Harlan M. Smith as assistant professor, School of Business Administration.
B.A. 1936, M.A. 1938, Ph.D. 1949, University of Chicago.
- Hylton A. Thomas as assistant professor of art.
B.A. 1942, M.A. 1943, University of Chicago; M.A. 1946, Ph.D. 1949, Harvard University.
- Lloyd Ulman as assistant professor, School of Business Administration.
B.A. 1940, Columbia College; M.A. 1941, University of Wisconsin.
- Charles A. Wright as assistant professor of law.
B.A. 1947, Wesleyan University (Middletown, Conn.); LL.B. 1949, Yale University Law School.

APPOINTMENTS, 1951-52

Professors

- Louise A. Stedman as professor and director, School of Home Economics.
B.A. 1930, M.A. 1937, State University of Iowa; Ph.D. 1947, Purdue University.
- Herbert M. Bosch as professor, School of Public Health.
B.S. 1929, University of Missouri; M.P.H. 1941, University of Minnesota.
- Willard W. Cochrane as professor of agricultural economics.
B.S. 1937, University of California; M.S. 1938, Montana State College; M.P.A. 1942, Ph.D. 1945, Harvard University.
- Dhirendra M. Datta of India as visiting professor in philosophy for winter and spring quarters, 1951-52.
M.A., Ph.D., P.R.S., Calcutta University.
- Ernst R. G. Eckert as professor of mechanical engineering.
B.A. 1926, M.S. 1928, Dr. Eng. 1931, German Institute of Technology at Prague, Czechoslovakia; Dr. Ing. habil 1938, German Institute of Technology, Danzig, Germany.
- Leonid Hurwicz as professor, School of Business Administration.
LL.M. 1938, University of Warsaw; Studied at London School of Economics, 1938-39; Institute des Hautes Etudes Internationales, Geneva, 1939-40; Harvard University, 1941; University of Chicago, 1940-42.
- Andreas G. Papandreou as professor, School of Business Administration.
M.A. 1942, Ph.D. 1943, Harvard University; attended University in Greece 1937-40.
- Ralph G. Ross as professor of general studies.
B.A. 1933, University of Arizona; M.A. 1935, Ph.D. 1940, Columbia University.
- Allen J. O. Tate as professor of English.
B.A. 1922, Vanderbilt University; Litt.D. 1948, University of Louisville.
- Helmut A. Zander as professor, School of Dentistry.
Doctor of Medical Dentistry 1934, University of Wuerzburg; D.D.S. 1938, M.S. 1940, Northwestern University.

Associate Professors

- Leon Festinger as associate professor of psychology and Laboratory for Research in Social Relations.
B.S. 1939, College of the City of New York; M.A. 1940, Ph.D. 1942, State University of Iowa.

Ralph T. Holman as associate professor of physiological chemistry, Hormel Institute.

B.S. 1939, Ph.D. 1944, University of Minnesota; M.S. 1941, Rutgers University.

Sylvester Koontz as clinical associate professor, School of Dentistry.

D.D.S. 1912, University of Minnesota.

Monrad G. Paulsen as associate professor of law.

A.A. 1938, B.A. 1940, J.D. 1942, University of Chicago.

Paul C. Rosenbloom as associate professor of mathematics and mechanics.

B.A. 1941, University of Pennsylvania; Ph.D. 1944, Stanford University.

Assistant Professors

Miriam M. C. Andrus as clinical assistant professor, School of Social Work.

Ph.B. 1928, University of Chicago; M.A. 1932, University of Minnesota.

Nicholas L. Barbarossa as assistant professor of civil engineering.

B.S. 1933, Massachusetts Institute of Technology.

Donald W. Bates as assistant professor of agricultural engineering, Department of Agriculture.

B.S. 1943, North Dakota Agricultural College; M.S. 1950, Cornell University.

Werner W. Boehm as assistant professor, School of Social Work.

LL.B. 1936, Ph.D. 1937, University of Dijon, France; M.S.W. 1941, Tulane University School of Social Work.

William O. Caster as assistant professor of physiological chemistry.

B.A. 1942, M.S. 1944, University of Wisconsin; Ph.D. 1948, University of Minnesota.

Stuart W. Fenton as assistant professor of organic chemistry.

B.S. 1945, M.S. 1946, Queen's University (Canada); Ph.D. 1950, Massachusetts Institute of Technology.

Helmut R. Gutmann as assistant professor of physiological chemistry.

M.D. 1936, University of Goettingen (Germany).

Lawrence A. Harris as assistant professor of electrical engineering.

B.S. 1946, University of Toronto; M.S. 1948, D.Sc. 1950, Massachusetts Institute of Technology.

John H. Mabry as assistant professor of social studies, Duluth Branch.

B.A. 1948, M.A. 1949, Ph.D. 1951, State University of Iowa.

Carlos Martinez as assistant professor of cancer biology.

M.D. 1943, Universidad Nacional de Cordoba (Argentina).

Sue H. Mason as clinical assistant professor, School of Social Work.

B.A. 1924, University of Minnesota; M.S.S. 1925, Smith College School for Social Work.

Maynard C. Reynolds as assistant professor of education.

B.S. 1942, State Teachers College, Moorhead, Minnesota; M.A. 1947, Ph.D. 1950, University of Minnesota.

Isaac Rosenfeld as assistant professor of general studies.

B.A. 1939, M.A. 1941, University of Chicago.

Harold Tovish as assistant professor of art.

Attended New York School of Art and Columbia University.

PROMOTIONS AND TRANSFERS, 1950-51

Academic Dean and Professor to Academic Dean, Professor, and Acting Provost

John E. King (Duluth Branch)

Associate Professor to Professor and Head

Douglas H. Yock (School of Dentistry—division of crown and bridge work)

Associate Professor to Professor

Louis A. Brunsting (Mayo Foundation—dermatology and syphilology)

Helen G. Canoyer (School of Business Administration)

Willis E. Dugan (College of Education)
 Lealdes M. Eaton (Mayo Foundation—neurology)
 Jacques Fermaud (College of Science, Literature, and the Arts—Romance languages)
 David Glick (College of Medical Sciences—physiological chemistry)
 Alrik Gustafson (College of Science, Literature, and the Arts—Scandinavian)
 Frank J. Heck (Mayo Foundation—medicine)
 Walter W. Heller (School of Business Administration)
 Edgar A. Hines (Mayo Foundation—medicine)
 Donald B. Lawrence (College of Science, Literature, and the Arts—botany)
 Emilio LeFort (College of Science, Literature, and the Arts—Romance languages)
 Daniel A. Listiak (School of Dentistry)
 Robert S. McClure (Law School)
 George H. McCune (General College—social studies)
 R. Dale Miller (Duluth Branch—humanities division)
 Carl L. Nelson (School of Business Administration)
 Ralph A. Piper (Physical Education for Men)
 Charles W. Rucker (Mayo Foundation—ophthalmology)
 James J. Ryan (Institute of Technology—mechanical engineering)
 Edward H. Rynearson (Mayo Foundation—medicine)
 Taito Soine (College of Pharmacy)
 Charles E. Swanson (College of Science, Literature, and the Arts—journalism)
 Richard L. Varco (College of Medical Sciences—surgery)
 John M. Waugh (Mayo Foundation—surgery)
 Cornelia T. Williams (General College)
 Marvin M. Williams (Mayo Foundation—biophysics)
 John B. Wolf (College of Science, Literature, and the Arts—history)

Clinical Associate Professor to Clinical Professor

Thomas Lowry (College of Medical Sciences—medicine)

Clinical Assistant Professor to Clinical Associate Professor

Walter P. Gardner (College of Medical Sciences—psychiatry and neurology)
 Harold B. Hanson (College of Medical Sciences—psychiatry and neurology)
 David State (College of Medical Sciences—surgery)

Research Associate and Assistant Professor to Research Associate and Associate Professor

Herbert G. Heneman (School of Business Administration—Industrial Relations Center)

Assistant Professor to Associate Professor

Evan R. Allred (College of Agriculture, Forestry, and Home Economics—agricultural engineering)
 Benjamin M. Black (Mayo Foundation—surgery)
 Theodore Caplow (College of Science, Literature, and the Arts—sociology)
 Elizabeth Carlson (College of Science, Literature, and the Arts—mathematics)
 Carleton B. Chapman (College of Medical Sciences—internal medicine)
 William J. Cromartie (College of Medical Sciences—bacteriology in hospital laboratories)
 Jackson K. Ehlert (Duluth Branch—music)
 W. Edwin Emery, Jr. (College of Science, Literature, and the Arts—journalism)
 Edmund B. Flink (College of Medical Sciences—internal medicine)
 Clarence A. Good, Jr. (Mayo Foundation—radiology)
 Carl V. Goossen (College of Education)
 James J. Jezeski (College of Agriculture, Forestry, and Home Economics—dairy husbandry)
 Francis R. Keating (Mayo Foundation—medicine)

THE PRESIDENT'S REPORT

Mark M. Keith (Duluth Branch—biology)
 Robert R. Kierland (Mayo Foundation—dermatology and syphilology)
 Harry W. Kitts (College of Education—agricultural education)
 Gisela Konopka (College of Science, Literature, and the Arts—social work)
 Arnold J. Kremen (College of Medical Sciences—surgery)
 Walter F. Kvale (Mayo Foundation—medicine)
 Leon M. Liddell (Law School)
 William N. Lipscomb (Institute of Technology—physical chemistry)
 George B. Logan (Mayo Foundation—pediatrics)
 Kyle R. Morris (College of Science, Literature, and the Arts—art)
 O. William Muckenhirn (Institute of Technology—electrical engineering)
 Arthur M. Olsen (Mayo Foundation—medicine)
 Magnus Olson (College of Science, Literature, and the Arts—zoology)
 William E. Parham (Institute of Technology—organic chemistry)
 John Rood (College of Science, Literature, and the Arts—art)
 Grace M. Roth (Mayo Foundation—physiology)
 Herbert W. Schmidt (Mayo Foundation—medicine)
 Thomas H. Seldon (Mayo Foundation—anesthesiology)
 Randall G. Sprague (Mayo Foundation—medicine)
 John Strait (College of Agriculture, Forestry, and Home Economics—agricultural engineering)
 Harold B. Swanson (College of Agriculture, Forestry, and Home Economics—publications)
 Marjorie H. Thurston (College of Agriculture, Forestry, and Home Economics—rhetoric)

Instructor to Associate Professor

Ralph L. Kitchell (School of Veterinary Medicine)

Research Fellow to Research Associate

Robert M. Granum (Institute of Technology—engineering experiment station)

Research Associate to Assistant Professor

Donald M. Brieland (Institute of Child Welfare)

Instructor to Assistant Professor

Alvin G. Anderson (Institute of Technology—civil engineering)
 Raymond M. Anderson (College of Agriculture, Forestry, and Home Economics—animal husbandry)
 Bernard P. Arnest (College of Science, Literature, and the Arts—art)
 Allan A. Bailey (Mayo Foundation—neurology)
 Clarence H. Boeck (University High School)
 Craig W. Borden (College of Medical Sciences—medicine)
 May Brodbeck (College of Science, Literature, and the Arts—philosophy)
 Paul A. Cartwright (Institute of Technology—electrical engineering)
 Charles E. Cutts (Institute of Technology—civil engineering)
 Allen Downs (College of Science, Literature, and the Arts—art)
 Francis E. Drake (College of Agriculture, Forestry, and Home Economics—rhetoric)
 William H. Edson (College of Education—student personnel)
 Lorenz E. A. Eitner (College of Science, Literature, and the Arts—art)
 Abraham Falk (College of Medical Sciences—medicine)
 Paul S. Hagen (College of Medical Sciences—medicine)
 J. Merle Harris (General College)
 Ben I. Heller (College of Medical Sciences—medicine)
 Harvey H. Hoyt (College of Agriculture, Forestry, and Home Economics—veterinary medicine)
 Paul Ivory (College of Education—music education)
 Donald H. Jackson (Duluth Branch—mathematics and engineering)
 James R. Jensen (School of Dentistry)
 Irvin E. Liener (Agriculture, Forestry, and Home Economics—agricultural biochemistry)
 Leslie K. Lindor (Department of Agriculture—West Central School and Station)
 George W. Lones (College of Medical Sciences—bacteriology)

Elmer P. Magnell (Duluth Branch—music)
 Edwin F. Menze (College of Science, Literature, and the Arts—German)
 Philip G. Morton (College of Science, Literature, and the Arts—art)
 Thomas B. O'Dell (College of Agriculture, Forestry, and Home Economics—veterinary medicine)
 Howard F. Polley (Mayo Foundation—medicine)
 Edwin L. Schmidt (College of Medical Sciences—bacteriology)
 Leon Singer (School of Dentistry)
 James E. Smith (Duluth Branch—music)
 Joseph C. Tam (School of Dentistry)
 Ella Thorp (College of Science, Literature, and the Arts—mathematics)
 E. Ruth van Appledorn (Duluth Branch—music)
 Ruth von Bergen (College of Medical Sciences—school of public health)
 Alvar A. Werder (College of Medical Sciences—bacteriology)
 Donald Woods (Department of Agriculture—rhetoric)

Clinical Instructor to Clinical Assistant Professor

William Branstad (School of Dentistry)
 Kenneth F. Bulkley (College of Medical Sciences—surgery)
 Herbert A. Carlson (School of Dentistry)
 Herman A. Garmers (School of Dentistry)
 Conrad J. Holmberg (College of Medical Sciences—otolaryngology)
 Bernard G. Lannin (College of Medical Sciences—surgery)
 John P. Medelman (College of Medical Sciences—radiology and physical medicine)
 Bernard J. O'Loughlin (College of Medical Sciences—radiology and physical medicine)
 L. Raymond Scherer (College of Medical Sciences—medicine)
 Hubert H. Serr (School of Dentistry)
 Francis M. Walsh (College of Medical Sciences—ophthalmology)
 Edgar A. Webb (College of Medical Sciences—surgery)

Instructor to Clinical Assistant Professor

Mellor R. Holland (School of Dentistry)
 William A. Peterson (School of Dentistry)

Lecturer to Assistant Professor

Donald K. Smith (College of Science, Literature, and the Arts—speech)

Research Fellow to Assistant Professor

Charles U. Lowe (W. K. Kellogg Foundation for Postgraduate Medical Education)

Associate Scientist to Clinical Assistant Professor

James F. Marvin (College of Medical Sciences—radiology and physical medicine)

County Agricultural Agent to Assistant Professor—District Supervisor

Doris R. Wyman (Department of Agriculture—agricultural extension)

Instructor to Lecturer

Stanley Block (Institute of Technology—mechanical engineering)
 Joseph Kwiat (College of Science, Literature, and the Arts—general studies)
 Leon Reisman (General College)

PROMOTIONS AND TRANSFERS, 1951-52

Acting Provost to Provost

John E. King (Duluth Branch)

Librarian-Professor to Dean and Professor

Errett W. McDiarmid (College of Science, Literature, and the Arts)

Associate Professor and Assistant University Librarian to Acting University Librarian and Associate Professor and Acting Director of Division of Library Instruction

Edward B. Stanford (Library)

Assistant Dean and Associate Professor to Assistant Dean and Professor

Russell M. Cooper (College of Science, Literature, and the Arts—junior college)

Associate Professor to Professor

Henry E. Allen (Office of the Dean of Students)
 Neal R. Amundson (Institute of Technology—chemical engineering)
 Clifford P. Archer (College of Education)
 Robert H. Beck (College of Education)
 Oscar T. Clagett (Mayo Foundation—surgery)
 Raymond W. Darland (Duluth Branch—biology)
 Ivan Doseff (College of Science, Literature, and the Arts—art)
 Thomas J. Dry (Mayo Foundation—medicine)
 Richard K. Gaumnitz (School of Business Administration)
 Paul R. Grim (College of Education)
 Robert Hebbel (College of Medical Sciences—pathology)
 Ernest H. Henrikson (College of Science, Literature, and the Arts—speech)
 Werner Levi (College of Science, Literature, and the Arts—political science)
 James G. Love (Mayo Foundation—neurosurgery)
 William J. Micheels (College of Education—trade and industrial education)
 Milo J. Peterson (College of Education—agricultural education)
 Sheldon C. Reed (College of Science, Literature and the Arts—zoology and Dight Institute)
 Wilfrid S. Sellars (College of Science, Literature, and the Arts—philosophy)
 Nelson T. Spratt, Jr. (College of Science, Literature, and the Arts—zoology)
 William B. Tucker (College of Medical Sciences—medicine)
 Frank Whiting (College of Science, Literature, and the Arts—theatre)
 Earl H. Wood (Mayo Foundation—physiology)

Clinical Associate Professor to Clinical Professor

S. Allan Challman (College of Medical Sciences—psychiatry and neurology)
 Oscar Cooperman (School of Dentistry)
 Royal C. Gray (College of Medical Sciences—psychiatry and neurology)
 Roy M. Jernall (School of Dentistry)
 Herbert C. Nelson (School of Dentistry)

Assistant Professor to Associate Professor

Roland H. Abraham (Department of Agriculture)
 Alexander Albert (Mayo Foundation—physiology)
 Donald Beatty (College of Science, Literature, and the Arts—history)
 Lyda C. Belthuis (Duluth Branch—social studies)
 Emma M. Birkmaier (College of Education)
 John R. Borchert (College of Science, Literature, and the Arts—geography)
 Carl Borgeson (Department of Agriculture—agronomy and plant genetics)
 John Bowditch (College of Science, Literature, and the Arts—history)
 Bernard Bowron (College of Science, Literature, and the Arts—English)
 Saul Cohen (College of Medical Sciences—physiological chemistry)
 Jesse E. Edwards (Mayo Foundation—pathologic anatomy)
 Gertrude Esteros (Department of Agriculture—home economics)
 Albert W. Frenkel (College of Science, Literature, and the Arts—botany)
 J. Francis Hartmann (College of Medical Sciences—anatomy)
 Paul L. Holmer (College of Science, Literature, and the Arts—philosophy)
 Cyril J. Hoyt (College of Education—bureau of educational research)
 Harvey H. Hoyt (Department of Agriculture—veterinary medicine)
 Thomas H. Ige (Duluth Branch—social studies)
 Henry S. Jerabek (Institute of Technology—mines and metallurgy)
 Donovan A. Johnson (College of Education)
 Otto H. Johnson (Institute of Technology—inorganic chemistry)
 Edward S. Judd, Jr. (Mayo Foundation—surgery)

- Gerhard K. Kalisch (College of Science, Literature, and the Arts—mathematics)
 Thomas H. King (Department of Agriculture—plant pathology and botany)
 Orville M. Kiser (Department of Agriculture—Northwest School and Station)
 Kenneth MacCorquodale (College of Science, Literature, and the Arts—psychology)
 Don Martindale (College of Science, Literature, and the Arts—sociology)
 Herbert McClosky (College of Science, Literature, and the Arts—political science)
 Huntington Miller (Extension Division)
 Thomas Murphy (Institute of Technology—mechanical engineering)
 Arthur Naftalin (College of Science, Literature, and the Arts—political science)
 Benjamin Nelson (College of Science, Literature, and the Arts—general studies)
 Elizabeth Nissen (College of Science, Literature, and the Arts—Romance languages)
 Robert E. Nylund (Department of Agriculture—horticulture)
 Paul R. O'Connor (Institute of Technology—analytical chemistry)
 William V. O'Connor (College of Science, Literature, and the Arts—English)
 Gerald B. Ownbey (College of Science, Literature, and the Arts—botany)
 Valworth R. Plumb (Duluth Branch—professional education)
 Merrill P. Rassweiler (General College)
 William Schofield (College of Medical Sciences—clinical psychology)
 Roy A. Schuessler (College of Science, Literature, and the Arts—music)
 Edward Silberman (Institute of Technology—St. Anthony Falls Laboratory—civil engineering)
 Mildred T. Templin (Institute of Child Welfare)
 David W. Thompson (College of Science, Literature, and the Arts—theatre)
 Ramona L. Todd (Students Health Service)
 Leonard Unger (College of Science, Literature, and the Arts—English)
 George A. Warp (College of Science, Literature, and the Arts—political science)
 Alvin F. Weber (Department of Agriculture—veterinary medicine)
 Leonard B. Wheat (Duluth Branch—professional education)
 Eric E. Wollaeger (Mayo Foundation—medicine)
 Herbert E. Wright, Jr. (College of Science, Literature, and the Arts—geology and mineralogy)
 Elmer E. Young (College of Science, Literature, and the Arts—art)
- Clinical Assistant Professor to Clinical Associate Professor*
 Reuben Berman (College of Medical Sciences—medicine)
 Lyle A. Brecht (School of Dentistry)
 Rudolf Engel (College of Medical Sciences—pediatrics)
 Werner Simon (College of Medical Sciences—psychiatry and neurology)
- Lecturer to Associate Professor*
 Malcolm B. Stinson (College of Science, Literature, and the Arts—social work)
- Instructor to Associate Professor*
 George W. Mather (Department of Agriculture—veterinary medicine)
- Clinical Instructor to Associate Professor*
 C. Walton Lillehei (College of Medical Sciences—surgery)
- Clinical Assistant Professor to Assistant Professor*
 James F. Marvin (College of Medical Sciences—radiology and physical medicine)
- Instructor to Assistant Professor*
 Amy Armstrong (College of Science, Literature, and the Arts—English)
 Harold F. Arneman (Department of Agriculture—soils)

Hilma Berglund (College of Science, Literature, and the Arts—art)
 Gust Bitsianes (Institute of Technology—mines and metallurgy)
 Dwight L. Burton (College of Education)
 David T. Carr (Mayo Foundation—medicine)
 Haddon M. Carryer (Mayo Foundation—medicine)
 Robert Collins (College of Science, Literature, and the Arts—art)
 Louis S. Cuendet (Department of Agriculture—agricultural biochemistry)
 Donald P. Duncan (Department of Agriculture—forestry)
 Edmund P. Eichhorn (College of Medical Sciences—medicine)
 Gerard A. Fleisher (Mayo Foundation—biochemistry)
 Rodolfo O. Floripe (College of Science, Literature, and the Arts—Romance languages)
 Robert A. Good (College of Medical Sciences—pediatrics)
 Walter T. Graves (Institute of Technology—civil engineering)
 John H. Grindlay (Mayo Foundation—physiology)
 John W. Hall (College of Science, Literature, and the Arts—botany)
 Harold L. Hayes (Duluth Branch—speech and dramatics)
 Corrin H. Hodgson (Mayo Foundation—medicine)
 James J. Jenkins (College of Science, Literature, and the Arts—psychology)
 Virgil H. Johnson (Department of Agriculture—agricultural engineering)
 Alfred G. Karlson (Mayo Foundation—comparative pathology)
 Frank Kiesler (College of Medical Sciences—psychiatry)
 Virginia M. Kivits (General College)
 Haym Kruglak (College of Science, Literature, and the Arts—physics—astronomy, general studies)
 F. John Lewis (College of Medical Sciences—surgery)
 Aganetha Loewen (Department of Agriculture)
 Vernon R. Mattox (Mayo Foundation—physiological chemistry)
 David J. Merrell (College of Science, Literature, and the Arts—zoology)
 Juliette I. Myren (Department of Agriculture—home economics)
 Pearl Niemi (College of Science, Literature, and the Arts—linguistics and comparative philology)
 Mildred M. Page (College of Education—art education)
 Ruby B. Pernell (College of Science, Literature, and the Arts—social work)
 Naomi M. Peterson (School of Business Administration)
 Earl V. Rymer (College of Science, Literature, and the Arts—music)
 Dorothy L. Sheldon (General College)
 Elmer L. Thomas (Department of Agriculture—dairy husbandry)
 Donald Torbert (College of Science, Literature, and the Arts—art)
 Edith West (College of Education)
 Robert E. Wilson (Mayo Foundation—obstetrics)
 Donald H. Yardley (Institute of Technology—mines and metallurgy)

Research Associate to Assistant Professor

Jacques R. Chipault (Hormel Institute)
 Homer T. Mantis (Institute of Technology—mechanical engineering)

Research Fellow to Assistant Professor

Orville S. Privett (Hormel Institute)
 Milo H. Swanson (Department of Agriculture—poultry husbandry)

Lecturer to Assistant Professor

Robert J. Holloway (School of Business Administration)
 Joseph Kwiat (College of Science, Literature, and the Arts—general studies)
 Ben B. Sutton (School of Business Administration)

Clinical Instructor to Clinical Assistant Professor

William F. Braasch (School of Dentistry)
 Donald V. Eckels (School of Dentistry)
 Isadore Fisher (College of Medical Sciences—dermatology)
 Walter K. Haven (College of Medical Sciences—ophthalmology and otolaryngology)
 Walter M. Jacobsen (School of Dentistry)

Joseph A. Resch (College of Medical Sciences—neurology)
 George G. Roth (College of Medical Sciences—medicine)
 Arthur W. Swanstrom (School of Dentistry)
 De Lloyd G. Ulander (School of Dentistry)

Research Associate to Clinical Assistant Professor

Edward N. Nelson (College of Medical Sciences—pediatrics)

Research Assistant to Clinical Assistant Professor

Dwight S. Chernausek (School of Dentistry)

LEAVES OF ABSENCE, 1950-51

- Gaylord W. Anderson, Mayo professor and director, School of Public Health, leave with salary September 1-15, 1950, to assist with the courses in public health at University of Chile upon the request of the Institute of Inter-American Affairs.
- Nelson L. Bossing, professor, College of Education, sabbatical furlough for the fall and winter quarters and without salary for the spring quarter, 1950-51, to complete writing a book and to visit and study some schools throughout the United States that are carrying on special projects in education.
- Ruth E. Boynton, professor and director, Students' Health Service, sabbatical furlough, March 1 to July 15, 1951, to travel and study student health services in the United Kingdom while serving on a Fulbright Research Scholarship.
- J. William Buchta, professor and chairman of physics and assistant dean, College of Science, Literature, and the Arts, leave with salary from August 1 to September 13, 1950, for inspection of cosmic ray and physical research facilities and programs in Switzerland, Germany, Holland, and Great Britain.
- Jonas J. Christensen, professor and acting chief of plant pathology and botany, leave without salary December 11, 1950 to January 19, 1951, visiting South America for United States Department of Agriculture to assist with observations on the disease reaction on the "World Collection of Wheats."
- George P. Conger, professor and chairman of philosophy, sabbatical furlough for 1950-51, to make an investigation of the possible ancient connections between India and Greece in order to probe into the striking resemblances between some Upanishad passages and some extant fragments of the works of Pre-Platonic philosophers of Greece, to work in India, Near East, Greece, and English libraries.
- Bryce L. Crawford, Jr., professor of physical chemistry, sabbatical furlough, 1950-51, to accept a Guggenheim fellowship for study and research in the interpretation of molecular spectra and in the application of such information to physical chemical problems, at California Institute of Technology and at Oxford and London.
- A. Orville Dahl, professor and chairman of botany, sabbatical furlough for 1950-51, to complete research projects, to attend the 7th International Botanical Congress in Stockholm, and to visit laboratories in Europe, Harvard University, and University of Illinois.
- Edward W. Davis, director-professor, Mines Experiment Station, leave without salary, March 16, 1951 to March 15, 1952, to undertake for the Reserve Mining Company the direction in designing and building a commercially-sized pelletizing unit at Babbitt, Minnesota, for utilization of large taconite and low-grade iron ore reserves in Minnesota.
- Harold C. Deutsch, professor of history, leave without salary, fall quarter of 1950-51, to join the staff of the National War College, Washington, D. C.
- Austin A. Dowell, professor of agricultural economics, leave with salary January 22 to September 30, 1951, on account of illness.
- Clifton Gayne, Jr., professor and chairman of art education, sabbatical furlough for 1950-51, to study art education in various countries in Europe.
- Dale B. Harris, professor, Institute of Child Welfare, leave without salary, July 1-31, 1950, to serve as visiting professor at the University of California.

- Walter W. Heller, professor, School of Business Administration, half-time leave without salary, January 1 to June 15, 1951, for position as special consultant to the U. S. Treasury in connection with a forthcoming tax bill.
- Thomas L. Joseph, professor and assistant dean, School of Mines and Metallurgy, leave without salary April 1 to June 15, 1951, to serve as visiting expert consultant at the request of the Scientific Section of the Supreme Commander for the Allied Powers, time to be spent in Japan.
- John H. Kuhlmann, professor of electrical engineering, Institute of Technology, continuation of leave without salary, January 1 to June 15, 1951, to serve as visiting professor at the University of Sao Paulo, Brazil.
- Paul E. Miller, professor-director, Agricultural Extension, leave without salary from July 16, 1950 to July 15, 1951, to serve as chief of the Economic Cooperation Administration Mission in Ireland.
- Walter T. Pattison, professor of Romance languages, sabbatical furlough for 1950-51, to pursue further and complete a study on the sources of some of Galdos' novels, time to be spent in Spain.
- Edgar L. Piret, professor of chemical engineering, sabbatical furlough for 1950-51, to accept a Fulbright Research scholarship conducting chemical engineering research in France.
- Alfred L. Vaughan, assistant dean and professor, General College, leave without salary July 1-31, 1950, to serve as a staff assistant at the University of California at Los Angeles in the summer session seminar-workshops on the study of general education in the junior colleges.
- Robert Penn Warren, professor of English, leave without salary, 1950-51, on account of illness of his wife.
- Clifford P. Archer, associate professor, College of Education, and director, Bureau of Recommendations, leave without salary, August 1, 1950 to June 30, 1951, to serve as a consultant in rural education in South America under the Institute of Inter-American Affairs.
- Arthur M. Borak, associate professor, School of Business Administration, leave without salary for 1950-51, to work with Japanese authorities and military government officials on the tax system; time to be spent in Tokyo, Japan.
- Josef Brozek, associate professor, Laboratory of Physiological Hygiene, leave without salary for half-time for 1950-51, to work for the State of Minnesota Mental Health Authority.
- Theodore Caplow, associate professor of sociology, leave without salary for 1950-51, to accept a Fulbright scholarship to lecture at the University of Bordeaux, France.
- Donald W. Cowan, associate professor, School of Public Health and assistant director, Students' Health Service, leave with salary, May 16 to August 31, 1950, on account of illness.
- James A. Cuneo, associate professor of Romance languages, sabbatical furlough for 1950-51, for research and writing on a Latin-American novel and the preparation of a text on Spanish-American civilization, time to be spent in South America.
- William H. Dankers, associate professor-extension economist in marketing, Agricultural Extension Service, continuation of leave without salary from November 1, 1950 to March 31, 1951, to serve as visiting expert, Food and Agriculture Project in Wuerttemberg-Baden area, Germany.
- Robert M. Douglass, associate professor-state leader, program planning and coordination, Agricultural Extension, leave with salary, August 21 to September 2, 1950, for military reserve training, and without salary February 21 to June 30, 1950, for active service with the 47th Division of the National Guard.
- Daniel C. Dvoracek, associate professor-extension economist in marketing, Agricultural Extension Service, leave with salary, November 1 to December 31, 1950, on account of illness.
- Richard K. Gaumnitz, assistant dean and associate professor, School of Business Administration, leave without salary, September 11, 1950 to June 30, 1951, to become associate field director with special responsibility for coordination of the activities of the Committee for Economic Development of University Joint Programs.

- Paul R. Grim, associate professor and director of student teaching, College of Education, leave without salary from July 19-28, 1950, to teach at the University of California.
- Ernest H. Henrikson, associate professor of speech and assistant director, Speech and Hearing Clinic, leave without salary, April 1 to June 30, 1951, to serve as instructor in Staff College in the Federal Civil Defense Administration.
- Austin Henschel, associate professor, Laboratory of Physiological Hygiene, 40 per cent time leave without salary for 1950-51, to work for the State of Minnesota Mental Health Authority.
- Gordon R. Kamman, clinical associate professor of psychiatry and neurology, leave without salary, June 1, 1950 to May 31, 1951, to serve as deputy commissioner of mental health.
- Werner Levi, associate professor of political science and general studies, sabbatical furlough for 1950-51, to study political developments in crucial areas of the world.
- George W. Lundberg, clinical associate professor, School of Dentistry, leave without salary for the spring quarter of 1950-51, on account of health.
- Edmund A. Nightingale, associate professor, School of Business Administration, one-third time leave without salary for the winter and spring quarters of 1950-51, for special assignment in the Military Traffic Service, Washington, D. C.
- Joseph C. Olson, Jr., associate professor of dairy husbandry, leave with salary, July 15 to August 2, 1950, for military reserve training.
- Gerald R. Prescott, bandmaster and associate professor of music, sabbatical furlough for 1950-51, to be spent at University of Colorado.
- Mary J. Shaw, associate professor of philosophy, sabbatical furlough for 1950-51, for rest and travel in England and France.
- Ernst Simonson, associate professor, Laboratory of Physiological Hygiene, 30 per cent time leave without salary for 1950-51, to undertake additional consulting work at the Veterans Hospital.
- James W. Stephan, associate professor, School of Public Health, leave without salary, January 16 to June 15, 1951, to make a study of nursing service administration in hospitals in and around Chicago, for the Kellogg Foundation.
- Margaret S. Taylor, director of public health nursing and associate professor, School of Public Health, leave without salary, April 1 to May 31, 1951, to prepare and administer a conference on graduate nurse education for the National Organization for Public Health Nursing.
- Hugh L. Turrittin, associate professor of mathematics and mechanics, sabbatical furlough for 1950-51, for study and research and to attend the International Mathematics Congress at Princeton University.
- Paul R. Wendt, associate professor, College of Education, leave without salary, February 1 to June 15, 1951, to accept a substitute appointment at Syracuse University, New York.
- Joseph T. Anderson, assistant professor, Laboratory of Physiological Hygiene, School of Public Health, 50 per cent time leave without salary for 1950-51, to work for the State of Minnesota Mental Health Authority.
- Roland Abraham, Jackson County agricultural agent-assistant professor, Agricultural Extension, sabbatical furlough from October 5, 1950 to June 30, 1951, to accept a Carnegie Foundation Fellowship at Harvard University.
- Jacob E. Bearman, assistant professor of mathematics, leave without salary, December 16, 1950 to June 15, 1951, to visit Israel and explore the desirability of taking up residence there.
- Richard G. Bond, assistant professor, School of Public Health, and public health engineer, Students' Health Service, leave with salary, February 26 to March 9, 1951, to attend a radiological health training course sponsored by the United States Public Health Service at Cincinnati, Ohio.
- Louise Dossdall, assistant professor of plant pathology and botany, leave with salary April 6 to June 30, 1951, on account of illness.
- Francis E. Drake, assistant professor of rhetoric, continuation of leave without salary for 1950-51, to serve as civilian consultant in communication skills in the academic instructor division of the United States Air Force Special Staff School, Craig Air Force Base, Alabama.

- Neith E. Headley, assistant professor and teacher of nursery school, Institute of Child Welfare, leave with salary for the winter quarter of 1950-51, on account of illness.
- John L. Imhoff, assistant professor, mechanical engineering, Institute of Technology, leave without salary for the fall and spring quarters of 1950-51, to complete residence requirements for Ph.D. degree at the University of Illinois.
- Loyal A. Johnson, assistant professor, civil engineering, Institute of Technology, leave without salary, December 1-31, 1950, to travel to Alaska regarding legal action in injury suit.
- Ruth V. Johnston, assistant professor, School of Nursing, leave without salary, April 1 to August 5, 1951, for further study.
- Harold E. Jones, assistant professor, Agricultural Extension Service, leave without salary, July 1 to August 31, 1950, to work on Doctor's degree at Purdue University.
- William Matalamaki, assistant professor, North Central School and Experiment Station, leave without salary, April 1 to June 15, 1951, to complete work on Master's degree at University of Minnesota.
- Kenneth P. Miller, assistant professor, North Central School and Experiment Station, leave without salary, February 16 to June 30, 1951, for military service.
- Evelyn R. Morrow, assistant professor-district supervisor home agent work, Agricultural Extension Service, leave with salary from September 1-20, 1950, to attend meeting of Associate Country Women of the World in Copenhagen, Denmark.
- Malcolm H. Myers, assistant professor of art, leave without salary for 1950-51, to accept a Guggenheim Fellowship for study in Paris, France.
- Bruce C. Netschert, assistant professor of social studies, leave without salary December 23, 1950 to June 15, 1951, to accept a temporary appointment as mineral economist with the United States Bureau of Mines, Washington, D. C.
- Josephine L. Rollins, assistant professor of art, sabbatical furlough for 1950-51, to collect material and paint a series of watercolors and oils to supplement a University of Minnesota fellowship in Regional Writing.
- Athelene H. Scheid, assistant professor-extension specialist in clothing, Agricultural Extension Service, sabbatical furlough, October 1, 1950 to August 31, 1951, to work for Master's degree at Michigan State College.
- Eugene F. Seehafer, assistant professor, School of Journalism, leave without salary for fall quarter of 1950-51, for personal reasons.
- C. Harold Stone, research associate and assistant professor, School of Business Administration Industrial Relations Center, leave without salary, September 11, 1950 to June 30, 1951, for military service.
- John A. Stovel, assistant professor, School of Business Administration, leave with salary, January 10 to March 15, 1951, on account of illness.
- Ruth D. Sundberg, assistant professor of anatomy, 10 per cent leave without salary for 1950-51, for further study in the field of hematology.
- Eves E. Whitfield, assistant professor-extension specialist in clothing, Agricultural Extension Service, leave with salary, August 14 to September 2, 1950, to attend a seminar at Syracuse University.
- Herbert E. Wright, Jr., assistant professor of geology and mineralogy, leave with salary January 1 to March 31, 1951, for physiographic-archaeologic survey of East-Central Iraq in conjunction with the Iraq-Jarmo project of the Oriental Institute of the University of Chicago.
- Bernard E. Youngquist, assistant professor, West Central School and Experiment Station, leave without salary, July 1 to August 31, 1950, for graduate work at the University of Minnesota.

LEAVES OF ABSENCE, 1951-52

- Harold S. Diehl, dean of the medical sciences and professor of public health, leave with salary from January 28 to February 11, 1952, to inspect, at the invitation of the Department of the Navy, the medical installations and activities in Honolulu and vicinity.
- Richard L. Kozelka, dean and professor, School of Business Administration, leave without salary for 75 per cent time from January 1 to June 30, 1952,

- to conduct a personal survey of selected member schools of the American Association of Collegiate Schools of Business, and to prepare recommendations for standards of professional education.
- Ray M. Amberg, director and professor, University of Minnesota Hospitals, leave with salary from March 1 to May 31, 1952, due to illness.
- John E. Anderson, director and professor, Institute of Child Welfare, leave with salary from July 1 to August 17, 1951, to attend International Congress of Psychology at Stockholm, Sweden, the Association Internationale de Psychotechnique in Gothenburg, and the psychology section of the British Association for the Advancement of Science in Edinburgh, and visit organizations for the study of children in Geneva, Vienna, and London.
- H. Harvard Arnason, professor and chairman, Department of Art, leave for 20 per cent time without salary, to accept the directorship of the Walker Art Center of Minneapolis.
- Francis B. Barton, professor and chairman of Romance languages, sabbatical furlough for the spring quarter of 1951-52, to obtain necessary practice in spoken French from a French-speaking country and to study the contemporary Spanish literature with time to be spent in Paris and Madrid.
- Nelson L. Bossing, professor of education, leave without salary for the fall and winter quarters of 1951-52, to serve with the leadership mission in education associated with the training of leaders at several of the universities in Japan and for the spring quarter of 1951-52, for writing and study.
- Norman H. Ceaglske, professor of chemical engineering, leave without salary, February 1 to June 15, 1952, to serve as visiting professor at Case Institute of Technology, Cleveland, Ohio, to gain experience in teaching and research in the field of instrumentation and control.
- Edward W. Davis, professor, Mines Experiment Station, 10 per cent time leave without salary for the spring quarter of 1951-52 to continue work on taconite development program at Babbitt, Minnesota.
- Ruth E. Eckert, professor of education, 33 per cent time leave without salary for the fall quarter of 1951-52, due to illness.
- Jacques A. Fermaud, professor of Romance languages, sabbatical furlough for 1951-52, to rewrite Doctor's dissertation for publication, time to be spent in France.
- William F. Geddes, professor and chief of agricultural biochemistry, leave with salary, June 11 to July 16, 1952, to visit the principal governmental and industrial research centers of England, Sweden, and other European countries in the fields of food research and cereal technology.
- Alexander A. Granovsky, professor of entomology and economic zoology, with salary November 16 to December 31, 1951 on account of illness.
- James Gray, professor of English, leave without salary for 1951-52, to write a centennial history of General Mills, Inc.
- James T. Hillhouse, professor and associate chairman of English, sabbatical furlough for the winter and spring quarters of 1951-52, for work on a number of papers in the field of the 19th-century novel at or near Yale University or the University of North Carolina.
- Theodore Hornberger, professor and chairman of English, leave without salary from February 16 to December 15, 1952, to serve as visiting lecturer in American literature at the University of Brazil.
- Ancel Keys, professor and director, Laboratory of Physiological Hygiene, School of Public Health, sabbatical furlough for 1951-52, to study certain health problems and arrange for continuing collaboration of these problems between the University of Minnesota and other universities and research groups in England and elsewhere abroad, and to write a book.
- Izaak M. Kolthoff, professor and chief of analytical chemistry, leave with salary from December 24, 1951, to January 21, 1952, to spend Christmas in Holland and to give a series of lectures in Israel.
- William H. Marshall, professor of entomology and economic zoology, sabbatical furlough from October 1, 1951, to June 30, 1952, to review certain wildlife management programs and practices to broaden knowledge of wildlife management by direct contact with leaders and projects in the field, time to be spent in the eastern and southeastern states.
- Carl L. Nordly, professor of physical education and athletics for men, sabbatical furlough for the spring quarter of 1951-52, to attend meeting of American Academy of Physical Education and convention of American

- Association for Health, Physical Education, and Recreation at Los Angeles, and to visit schools and colleges en route to and from California and in Minnesota.
- Walter T. Pattison, professor of Romance languages, leave without salary for 1951-52, to serve as visiting professor at the University of California at Los Angeles.
- William E. Petersen, professor of dairy husbandry, leave with salary May 26 to June 9, 1952, to serve as technical adviser to a group of dairy farmers from the U. S. on a visit to dairy farms in France, Holland, Denmark, Sweden, Norway, and England, sponsored by *Farm Journal* of Philadelphia.
- Leo G. Rigler, professor and head, Department of Radiology and Physical Medicine, leave with salary from September 16 to October 15, 1951, to participate in Medical Education and Public Health Mission to Israel and Iran under the auspices of the World Health Organization of the United Nations.
- Ernest H. Rinke, professor of agronomy and plant genetics, leave without salary, April 16 to October 6, 1952, to accept a Mutual Security Agency assignment as a hybrid corn technician for the Portuguese government in Africa.
- James J. Ryan, professor of mechanical engineering, 50 per cent time leave without salary for 1951-52, to join the Aeronautical Research Laboratory of General Mills, Inc.
- Elvin C. Stakman, professor and chief of plant pathology and botany, leave with salary March 30 to April 12, 1952, for travel in Latin America for Rockefeller Foundation as chairman of Agricultural Advisory Committee.
- Allen Tate, professor of English, leave with salary May 12 to June 3, 1952, to be one of six representatives of the U. S. at a festival sponsored by the International Congress for Cultural Freedom in Paris.
- Richard L. Varco, professor of surgery, continuation of leave for 20 per cent time without salary to serve at Minneapolis Veterans Hospital.
- Maurice B. Visscher, professor and head of physiology, leave with salary April 4-14, 1952, to serve as United States Representative at the Second General Assembly of the council for the Co-ordination of International Congresses of Medical Sciences to be held in Geneva, Switzerland.
- John B. Wolf, professor of history, sabbatical furlough for 1951-52, for research work involving a modern biography of Louis XIV, time to be spent in Paris and suburbs.
- Henry Borow, associate professor, General College, leave without salary, 1951-52, to participate in the Japanese Counseling and Guidance Institute sponsored by the Supreme Commander of the Allies.
- Leon Festinger, associate professor, Laboratory for Research in Social Relations, leave with salary from August 1 to October 31, 1951, for travel to Holland under the auspices of the Rockefeller Foundation.
- Richard G. Guilford, associate professor, School of Social Work, sabbatical furlough for 1951-52, to continue advanced studies toward Ph.D. degree at the University of Chicago.
- Fulton Koehler, associate professor of mathematics and mechanics, sabbatical furlough for 1951-52, for uninterrupted study and research and completion for publication work on some partially solved problems, with time to be spent in Minneapolis.
- Leon M. Liddell, associate professor and law librarian, Law School, leave without salary July 1-31, 1951, and September 1, 1951, to June 20, 1952, for work toward a Doctor's degree at Columbia University.
- Rodney C. Loehr, associate professor of history, leave without salary for 1951-52, to participate in the U. S. Department of State's historical program in Germany with the special task of writing the financial history of the Occupation.
- Warren G. Meyer, associate professor of education, leave without salary from September 16 to October 31, 1951, to act as vocational education consultant in Germany under the U. S. Department of State's educational exchange program.
- Kyle R. Morris, associate professor of art, leave without salary for 1951-52, for painting.

- Joseph C. Olson, Jr., associate professor of dairy husbandry, leave with salary June 18-29, 1951, for annual military leave.
- Orrin W. Potter, associate professor of drawing and descriptive geometry, 50 per cent time leave without salary March 16 to June 15, 1952, to assist in the newly established business of his son, prior to the latter's entrance into the armed services.
- Merrill P. Rassweiler, associate professor of physical science and mathematics, General College, leave without salary for 1951-52, to accept a fellowship awarded by the Fund for the Advancement of Education of the Ford Foundation.
- Lloyd B. Ritchey, associate professor of mechanical engineering, leave without salary for 1951-52, to acquire industrial experience in patent law or research and development.
- John Rood, associate professor of art, one-half time leave without salary for 1951-52, to complete several important sculpture commissions.
- Arnold M. Rose, associate professor of sociology, leave without salary for 1951-52, to accept Fulbright award for research in France.
- Arthur E. Schneider, associate professor, School of Forestry, leave without salary from October 15, 1951, to June 30, 1952, to complete residence requirements for graduate study toward Doctor's degree at the University of Washington, Seattle.
- Dorothy Simmons, associate professor-state leader, extension home program, and associate home economist, Agricultural Extension Service, leave with salary April 14 to May 3, 1952 on account of illness.
- Ernst Simonson, associate professor, School of Public Health, continuation of 20 per cent time leave without salary for work at Veterans Hospital.
- David State, associate professor of surgery, leave without salary from February 8 to June 30, 1952, due to illness in the family.
- Minard W. Stout, associate professor and principal University High School, leave without salary, July 23-27, 1951, to teach at the University of Texas.
- George A. Warp, associate professor of political science, leave without salary for the fall and winter quarters of 1951-52, to serve as a consultant to the Japanese Public Administration Clearing House in setting up a public administration service.
- Chester W. Wood, associate professor and director of student personnel service, Duluth Branch, leave without salary from December 10, 1951, to June 30, 1952, to accept a position as education specialist with United Nations Educational, Scientific and Cultural Organization in Lima, Peru.
- Harold B. Allen, assistant professor of English, leave without salary for 1951-52, to accept the faculty fellowship of the Fund for the Advancement of Education.
- Joseph T. Anderson, assistant professor, Laboratory of Physiological Hygiene, School of Public Health, continuation of leave for 25 per cent time without salary, to work with State of Minnesota Mental Authority in a cooperative research project at Hastings.
- Kenneth M. Anderson, assistant professor, Law School, leave without salary for 1951-52, for military service.
- Amy Armstrong, assistant professor of English, leave with salary February 1 to June 15, 1952, on account of illness.
- Jacob E. Bearman, assistant professor of mathematics, continuation of leave without salary for 1951-52, to continue his stay in Israel.
- Donald W. Calhoun, assistant professor of general studies, leave with salary May 1 to June 15, 1952 on account of illness.
- Elwin R. Duncan, assistant professor-extension specialist in soils, Agricultural Extension Service, sabbatical furlough from October 1, 1951, to June 15, 1952, for graduate work toward a Ph.D. degree at Iowa State College.
- Harold Goldstein, assistant professor of professional education, Duluth Branch, leave without salary for 1951-52, for position as librarian with U. S. State Department Information Service in Colombo, Ceylon.
- Eloise Jaeger, assistant professor of physical education for women, sabbatical furlough for 1951-52, for graduate study at Columbia University.
- Ernest R. Johnston, assistant professor of mathematics and mechanics, 50 per cent time leave without salary for the fall and winter quarters of 1951-52, for work toward a Doctor's degree.

- William H. Kelly, assistant professor of anthropology, leave without salary for 1951-52, to complete field work and manuscript on Cocopa Indians of Mexico and Arizona, to complete research and writing on Southwestern Indians for publication, to visit and study in museums and at archaeological sites for material on Mexican archaeology, and to initiate ethnological studies in the Central Plateau region of Mexico.
- Charlotte Kirchner, assistant professor-extension specialist in home furnishing, Agricultural Extension Service, leave with salary from October 23 to November 30, 1951, due to illness.
- Elmer P. Magnell, assistant professor of humanities, Duluth Branch, sabbatical furlough for 1951-52, to work on his Doctor's degree at the University of Colorado.
- John E. Nafe, assistant professor of physics, leave without salary, 1951-52, for work on urgent war research at Columbia University under the auspices of the Office of Naval Research.
- Howard F. Nelson, assistant professor of industrial education, sabbatical furlough for 1951-52, to work for Doctor's degree at University of Kansas.
- Ruth H. Richards, assistant professor of professional education, Duluth Branch, leave without salary for 1951-52, to complete residence and course requirements for a Doctor's degree.
- Edward E. Slettom, Rice County agricultural agent-assistant professor, Agricultural Extension Service, sabbatical furlough, April 30, 1951, to March 20, 1952, for graduate work toward a Master's degree.
- Dorothy D. Smith, assistant professor of professional education, Duluth Branch, leave without salary from November 9, 1951, to June 15, 1952, to serve as specialist in elementary education with the Institute of Inter-American Affairs in Quito, Ecuador, South America.
- Spencer M. Smith, assistant professor, School of Business Administration, 67 per cent time leave without salary for 1951-52, to work as price economist for the Regional Office of the Office of Price Stabilization.
- John A. Stovel, assistant professor, School of Business Administration, leave without salary for 1951-52, to accept a temporary appointment at the University of Wisconsin.
- George B. Strother, assistant professor of professional education, Duluth Branch, leave without salary for 1951-52, for military service.
- Dorothy Sundberg, assistant professor of anatomy, continuation of leave for 10 per cent time without salary for 1951-52, to continue her studies in the field of hematology.
- Fae Y. Tichy, assistant professor of psychiatry and neurology, 9 per cent time leave without salary from October 1, 1951, to June 30, 1952, to assist with setting up a laboratory at the Anoka State Hospital.
- Mary Turpie, assistant professor of English, leave without salary for 1951-52, to accept the faculty fellowship of the Fund for the Advancement of Education.
- Dorothy Whitmore, assistant professor, School of Social Work, leave without salary for 1951-52, to complete an additional year of advanced study in casework treatment at the University of Chicago.

DEATHS

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

- Vernon L. Hart, clinical assistant professor of orthopedic surgery, July 12, 1950.
- Alexander G. Dumas, clinical associate professor of psychiatry and neurology, October 2, 1950.
- Ernest S. Mariette, clinical assistant professor of medicine, October 29, 1950.
- Warren C. Waite, professor of agricultural economics, November 11, 1950.
- Ezra H. Pieper, professor of history and chairman, Social Studies Division, Duluth Branch, December 21, 1950.
- Alvin S. Cutler, professor emeritus of civil engineering, January 7, 1951.
- Anne D. Blitz, dean of women emeritus, February 18, 1951.
- Peter J. Brekhus, professor emeritus, School of Dentistry, June 29, 1951.
- Harold E. Richardson, clinical instructor in medicine, June 18, 1951.
- Frederick H. Scott, professor emeritus of physiology, July 21, 1951.

- Arthur G. Tyler, assistant professor emeritus of agricultural engineering, October 26, 1951.
- Thomas B. Hartzell, lecturer emeritus in medicine and dentistry, August 26, 1951.
- Arthur E. Karlstrom, clinical instructor in pediatrics, October 4, 1951.
- J. Frank Corbett, clinical professor emeritus of surgery, November 6, 1951.
- Alfred W. Adson, professor of surgery Mayo Foundation, November 12, 1951.
- Wesley E. Peik, dean of the College of Education, December 6, 1951.
- Thurston W. Weum, clinical instructor emeritus of obstetrics and gynecology, December 20, 1951.
- Ralph E. Montonna, professor of mechanical engineering and director of Engineering Experiment Station, January 7, 1952.
- Russell W. Morse, clinical assistant professor of radiology and physical medicine, December 26, 1951.
- Emilio C. LeFort, professor of Romance languages, March 31, 1952.
- Royal R. Shumway, assistant dean and professor emeritus, College of Science, Literature, and the Arts, April 19, 1952.
- Albert B. White, professor emeritus of history, May 10, 1952.

HONORS AND DISTINCTIONS

Administration—James Lewis Morrill was awarded the honorary LL.D. degree by Macalester College, 1951, and the honorary LL.D. degree by Northwestern University, 1952. He served as chairman of the following: U. S. Advisory Commission on Educational Exchange, Department of State, 1951—; Committee on Relationships of Higher Education to the Federal Government, American Council on Education, 1951-52; Steering Committee, Field Economic Mobilization Course conducted by the Industrial College of the Armed Forces, 1950; and the Governor's Third State Conference on Children and Youth, 1952. For the Association of Land-Grant Colleges and Universities he served as chairman, Executive Committee of the Subcommittee on the Book about Land-Grant Institutions, 1950-52; member, Senate Committee on Veterans Affairs, 1950-52; member, Senate Special Committee on Federal Legislation, 1951; chairman, Subcommittee on Manpower, Universal Military Training and Service, and Selective Service, 1951—; chairman, Committee on National Defense, 1952; member, Committee on Relationships with the National Association of State Universities, 1952; and member, Council of Presidents, 1952. During 1951-52 he served for the National Association of State Universities as member, Committee on the Study of the Role of the State University; member, Committee on Accrediting Agencies; and member, Special Committee on Union of National Association of State Universities and the Association of Land-Grant Colleges and Universities. He also served as member, National Commission on Accrediting, 1950-52; member, Committee on Academic Freedom and Tenure, Association of American Universities, 1950-52; member, Advisory Committee on Foreign Service Examinations, Department of State, 1950-51; member, Commissioner's Council of Advisers, U. S. Office of Education, 1950-51; member, Advisory Council, National Fund for Medical Education, 1950-52; member, Ford Motor Company Fund Scholarship Board, 1951—; member, Board of Directors, United Community Defense Services, Inc., 1951-52; member, Committee on the Present Danger, 1951-52; member, Council of Ten, Western Intercollegiate Conference of University Presidents, 1950-52; member, Special Committee of Educators for Emergency Aid for Chinese Intellectual Leaders, 1952; member, Honorary Council, Ohioana Library Association, 1951—; member, Executive Council, Minnesota Historical Society, 1951-52; member, Board of Trustees, The Minneapolis Foundation, 1950-52; member, Board of Trustees, Minnesota Community Research Council, Inc., 1950-52; and member, Board of Trustees, Ames Library of South Asia, 1950-52.

Alumni Relations—Edwin L. Haislet served as member, Minneapolis Board of Park Commissioners, 1950-52; member, Board of Directors, Bryn Mawr Community League, Inc. 1951-52; member, Governor's Advisory Council on Children and Youth, 1952; chairman, Governor's Advisory Committee on Recreation, 1950-52; member, Recreation Consultant Team, Division of Public Institutions, 1950-52; member, Physical Education Committee, North

Central Area Council, YMCA, 1950-52; member, State Sponsoring Committee, Minnesota Hi-Y Youth and Government Program, 1950-52; chairman, Resolutions Committee, Governor's 2nd and 3rd State Youth Conference, 1951-52; member, Publicity Committee, American Recreation Society, 1952; member, United States Olympic Committee, 1951-52; and member, National Advisory Committee on Recruitment, Training, and Placement of Recreation Personnel, National Recreation Association, 1952.

Academic Administration—Malcolm M. Willey served as director, 1950-52, and member, Committee on Faculty Research Fellowships, 1950-52, Social Science Research Council; member, Board of Review, 1950-51, and Commission on Higher Education, 1950-52, North Central Association of Colleges and Secondary Schools; member, Scientific Advisory Committee on Specialized Personnel, National Selective Service System, 1950-52; member, Commission on Human Resources and Advanced Training, Associated Research Councils, 1950-52; member, Board of Directors, Walker Art Center; and contributing editor, *Long Island Forum*.

Office of Admissions and Records—Clara H. Koenig served as consultant on foreign credentials, U. S. Office of Education, 1952; and as credentials consultant, Minnesota State Board of Law and Engineering Examiners, 1951-52. She was official delegate, Upper Midwest Association of Collegiate Registrars and Admissions Officers, Houston, Texas, 1951.

True E. Pettengill served as chairman, Program Committee, Upper Midwest Association of Collegiate Registrars, 1951; member, Convention Committee, American Association of Collegiate Registrars and Admissions Officers, Washington, D. C., 1952.

Robert E. Summers was appointed chairman, Committee on College and University Enrollment Trends, American Association of Collegiate Registrars and Admissions Officers, 1950—; and was recipient of a grant-in-aid from the Commission on Financing Higher Education to study factors which influence college plans of high school seniors.

Office of the Dean of Students—Henry E. Allen served as member, Board of Directors, 1950-52, and chairman, Inter-Group Relations Committee, 1951-52, Greater Minneapolis Council of Churches; member, Governor's Interracial Commission, 1950-52; member, Governor's Advisory Council on Children and Youth, 1951-52; national member, Presbyterian Student Work Survey Committee, 1950-52; chaplain, Minnesota Society, Sons of the American Revolution, 1951-52.

Kermit O. Almos was elected to Psi Chi, 1952.

Ralph F. Berdie was named chairman, Committee on Psychology, Governor's Advisory Council on Mental Health, 1951-52; consultant to Educational Testing Service, 1951; member, Executive Council, American College Personnel Association, 1951-52; and member, Examination Board, Minnesota State Civil Service, 1951. He was recipient of research grants from Commission on Human Resources, 1951-52, and from Commission on Financing Higher Education, 1951-52.

Charmion Bolles served as Eastern regional adviser, 1950-52, and as adviser for the Eastern regional convention, Intercollegiate Association of Women Students.

B. James Borreson served as member, Subcommittee on Student Activities, American Council on Education, 1950-51.

Alice M. Christian served as member, Board of Directors, and member, Personnel Standards Committee, YWCA (Minneapolis), 1951-52; member, Assimilation Committee, Minneapolis Vocational Guidance Association, 1950-51; and secretary, Minnesota Rehabilitation Association, 1950-51.

Ernest H. Henrikson served as assistant editor, *Journal of Speech and Hearing Disorders*, 1951-52. For the American Speech and Hearing Association he served in the following capacities: executive vice president, 1951-52; council member; chairman, Committee on Liaison, and Committee on Time and Place; and member, Committee on Nominations, and Committee on National Registries. He was research consultant in Speech Pathology, Veterans Administration, 1951-52; staff college specialist, Federal Civil Defense Administration, Washington, D. C., 1951; member, Board of Examiners for Speech

Psychologists, Minnesota Civil Service Department, 1950; and president, Minnesota Speech and Hearing Clinicians' Association, 1950.

Vivian H. Hewer served as member, Committee on Coordination of Federal Services, Division 17 on Counseling and Guidance, American Psychological Association. She was elected to Pi Lambda Theta, 1951; and was member, Board of Directors, Minneapolis Vocational Guidance Association, 1952.

Walter O. Jewell served as member, Committee on the Recording and Retention of Student Disciplinary Records, 1951-52, American College Personnel Association.

Theron A. Johnson was named chairman, International Relations Committee, American College Personnel Association, 1950-52.

Frank M. Lassman served as chairman, Subcommittee on Hearing, member, Committee on Clinical Certification, and member, Committee on Ethical Practices, American Speech and Hearing Association, 1951-52; member, Committee on Certification, Minnesota Speech and Hearing Clinician's Association, 1951-52; consultant, St. Paul Rehabilitation Center, 1950-52; and member, Board of Examiners for Speech Psychologists, Minnesota Civil Service Department, 1950-52.

Gordon M. Low was named chairman, sectional meeting at convention, American Speech and Hearing Association, 1951.

Forrest G. Moore served as member, Board of Directors, National Association of Foreign Student Advisers, 1950-51; member, Advisory Committee on Undergraduate Studies, Institute of International Education, 1951; and member, Commission on International Understanding and World Peace, Minneapolis Public Schools, 1951-52.

Gerhard Neubeck was vice president, Parent-Teachers Association, Horace Mann Grade School, St. Paul, 1951-52; and chairman, Television Committee, National Council on Family Relations, 1951-52.

Dorothy Nicholas was member, Committee on Reading, National Society for the Study of Communications, 1951-52.

Allan C. Orensteen was named associate, American Psychological Association, 1950.

William B. Otterness was elected to Psi Chi, 1952.

Paul H. Ptacek served as member, Board of Examiners for Speech Pathologists, Minnesota Civil Service Department, 1951-52; and was awarded Speech Correction Fund Scholarship, sponsored by American Speech and Hearing Association and National Society for Crippled Children and Adults, 1952.

George B. Risty served as scholarship program consultant, Tozer Foundation, Inc., Stillwater, Minnesota, 1950-52; member, Scholarship Committee, Junior-Achievement Awards, sponsored by business firms in Minneapolis, 1951; advisory member, Special Scholarship Committee, Sears Roebuck Foundation, Minneapolis, 1950-52; and adviser, carrier scholarship program, *Star-Tribune*, Minneapolis, 1950-51.

Martin L. Snoke was education member, Minnesota State NROTC Selection Committee, 1951.

Dorothy F. Snyder was elected to membership, Pi Lambda Theta, 1951.

Axel A. Wiljamaa was elected to Phi Delta Kappa, 1951.

Benjamin Willerman was member, Program Planning Committee, Topological Psychology Group, 1951-52; and was recipient of a research grant from the National Institute of Mental Health, U. S. Public Health Service 1951-52; and of a research grant from the Office of Naval Research 1951-52.

Edmund G. Williamson served as chairman, Committee on Student Personnel Work, 1950-51, and chairman, Naval Scientific Personnel Advisory Committee, 1950-52, American Council on Education; chairman, Advisory Committee to Japanese Universities Counseling and Guidance Institute, American Council on Education and U. S. Department of the Army, 1951-52; member, Minnesota Committee to Study Commercial Vocational Information Agencies, 1951-52; chairman, Committee on High School-College Relations, Association of Minnesota Colleges, 1950-52; member, Committee on Intra-professional Relations, 1950-51, and chairman, Elections Committee, Division 17, 1952, American Psychological Association; member, Minnesota State NROTC Selection Committee, 1951; chairman, Study Commission Number 4 on Evaluation, National Association of Student Personnel Administrators,

1951-52; chairman, Advisory Committee, Advise ment and Rehabilitation Division, U. S. Veterans Administration, 1951-52.

University of Minnesota Press—Helen Clapesattle was named secretary and member, Executive Board, State Chapter, United World Federalists.

Margaret S. Harding was elected vice president, 1950-51, and was a member, Foreign Trade Committee, 1951-52, Association of American University Presses.

Irma L. Koefod was member, Accounting Committee, Association of American University Presses, 1950-52.

Helen L. MacDonald served as chairman, Exhibits Committee, Association of American University Presses, 1951-52; member, Advisory Board, and chairman, Personnel Committee, University of Minnesota YWCA, 1950-52.

Jane McCarthy served as typographic consultant, State Board of Health.

University Library—Caroline Brede served as member, Committee on Revision of Constitution and By-Laws, American Association of Law Libraries, 1950-51.

Vera Clausen was named chairman, Reference Section, Minnesota Library Association, 1950-51.

Myrtle J. Eklund was elected secretary-treasurer, Minnesota Chapter, American Society for Public Administration, 1950-52.

C. Irene Hayner served as vice president and president elect, 1951-52, and member, Committee on Instruction, 1951-52, Association of American Library Schools; chairman, Scholarship Committee, Minnesota Library Association, 1951-52; member, 1950-52, and chairman, 1950-51, Audit Committee, Delta Kappa Gamma; member, Elections Committee, 1951-52, American Library Association; and member, Constitution Committee, American Association of School Librarians, 1951-52.

Anita Hofer was chairman, Public Relations Committee, Minnesota Chapter, Special Libraries Association.

Harald Ostvold served as president, Twin City Library Club; member, Committee on Relations with U. S. Department of Agriculture Library; and member, Oberley Memorial Fund Committee.

Harold G. Russell served as member of Council, and member, Credentials Committee, American Library Association; and member, Committee on Needed Reference Tools, Association of College and Reference Libraries.

Marie P. Samanisky was member, Committee to Revise "Social Welfare Subject-Heading List," Social Science Division, Social Welfare Section, Special Libraries Association.

Raymond H. Shove served as chairman, Serials Committee, American Library Association, 1950-51; member, Serials Committee, Association of Research Libraries, 1950-51; and member, Publications Committee, Association of American Library Schools, 1951-1952.

Wesley C. Simonton was member, Committee on Personnel, Division of Cataloging and Classification, American Library Association.

Edward B. Stanford was member, Advisory Board, Midwest Inter-Library Center.

Department of Concerts and Lectures—Harold J. Alford was chairman, Concerts and Lectures Committee, National University Extension Association 1950-51. For the American Educational Theatre Association he served as follows: chairman, Manuscript Play Project, 1950-51; member, Theatre Touring Company Project, 1952; and member and sub-chairman for Minnesota, Community Theatre Survey, Adult Education and Theatre Project, 1952.

James S. Lombard served as executive secretary, International Platform Association, 1951-52; world chairman, Youth Committee of the IOOF, 1950-52; originated Odd Fellows United Nations Pilgrimage for Youth 1950; was member, Selection Committee, White House Conference for Youth, 1950-51; and member, Concerts and Lectures Committee, National University Extension Association, 1950-51.

Museum of Natural History—Walter J. Breckenridge served as president, 1952, and vice president, 1950-52, Wilson Ornithological Club. He was elected fellow and member of the Council, American Ornithologists Union, 1950; and vice president, Minnesota Natural History Society. He served as member, Policy Committee, Minnesota Ornithologists Union, 1951-52; chairman, Local

Committee on Arrangements for 1950 annual meeting, American Ornithologists Union; and member, Local Committee on Arrangements for annual meeting, American Association of Museums, 1952. He presented a series of 23 public lectures under the sponsorship of the National Audubon Society, (Audubon Screen Tours) in southeastern United States, and a second similar series in the Midwest, 1951. He was named chairman, Legislative Commission, for choosing Minnesota state bird.

Helen S. Chapman was named chairman, Social Action Committee, Congregational Women of Minnesota; chairman, Literature Committee, Minnesota United World Federalists; scholarship chairman, Woman's Board of Breck School for Boys, St. Paul; representative, Mayor's Council on Human Relations; representative, National Conference of Christians and Jews; and member, World Affairs Council, YWCA.

Harvey L. Gunderson served as seasons editor, Audubon Field Notes; member, Board of Directors, Natural History Society of Minnesota; subscription manager, *The Minnesota Naturalist*; merit badge counselor, Boy Scouts of America; member, Membership Committee, American Ornithologists Union; member, Legislative Commission for choosing Minnesota state bird.

Donald K. Lewis served as editor, annual *Proceedings*, Minnesota Academy of Science, 1950-51; and was elected secretary-treasurer, Minnesota Section, National Wildlife Society, 1952.

Dwain W. Warner was elected member, American Ornithologists Union, 1951; and served as member, Organizational Board and charter member, Foundation for Neotropical Research, (incorporated April, 1952); member, Research Committee, Wilson Ornithological Club, 1950-52; editor, *The Flicker*, Quarterly Journal, Minnesota Ornithologists Union, 1950-51; member, Committee on Arrangements for annual meeting, American Ornithologists Union, 1950; and was elected president, and member, Board of Directors, Foundation for Neotropical Research, 1952.

Students' Health Service—Ruth E. Boynton was the recipient of a Fulbright Research Scholarship for study of student health services in the United Kingdom, 1951. She served as member, 1950-52, and president, 1951, State Board of Health; member, Health Action Committee, Minneapolis; member, Executive Committee, Minnesota Tuberculosis and Health Association; and member, Executive Council, American College Health Association.

Donald W. Cowan received certification by American Board of Preventive Medicine and Public Health; and was elected vice president, North Central Section, American College Health Association.

James R. Fox was appointed visiting staff member in internal medicine, senior physician to the Health Service and physician to Royal Infirmary, University of Edinburgh, Scotland, 1952.

Robert G. Hinckley served as consultant and member, Advisory Committee, Big Sisters Social Agency.

Phillip D. Kernan was chairman, District Committee, Health and Safety, Boy Scouts of America.

Myron G. Messenheimer served as psychiatric consultant, Mental Hygiene Clinic, Veterans Administration.

Stella H. Sikkema received certification by American Board of Internal Medicine, 1950; and was elected fellow, American College of Physicians, 1951.

Ramona L. Todd served as chairman, National Committee on Research, American College Health Association.

Business Administration—Hedwin C. Anderson was elected vice president in charge of membership, College and University Personnel Association, 1950-51.

Edwin C. Jackson served as acting secretary, Minnesota-Dakota section, Educational Buyers Association and Business Officers Association, 1951-52; and as member, Examining Panel for Major State Civil Service Positions, 1951-52.

Laurence R. Lunden served as member, Efficiency in Government Subcommittee appointed to study Railroad and Warehouse Commission and Board of Grain Appeals, 1950; first vice president, Hennepin County Tuberculosis Association, 1951; vice president, 1950-51, and president, 1951-52, Central Association of College and University Business Officers; member, Committee on Institutional Research Policy, 1952, and chairman, *ad hoc* Committee on

Taxation and Fiscal Reporting, 1950-52, American Council on Education; chairman, Joint Committee of Business Officers representing Association of Land-Grant Colleges and Universities and National Association of State Universities, 1950-52; chairman, Subcommittee, National Federation Committee of Business Officers, 1950-52; section leader, Wisconsin School of Banking, University of Wisconsin, 1950-52; and member, Board of Trustees, Luther College, 1950-52.

William T. Middlebrook served as member, Executive Committee, member, vice-chairman, 1951, and chairman, 1951-52, Board of Directors, Inter-Library Corporation; chairman, National Federation Committee of Business Officers; member, *ad hoc* Committee on Contractual Procedures Covering Relationships with Educational Institutions, Research and Development Board; and member, Committee on Contract Relations with the Federal Government, Engineering College Research Council, American Society for Engineering Education.

Frank F. Pieper was elected vice chairman, Twin City Training Directors Association, 1951-52.

College of Science, Literature, and the Arts—Ernst C. Abbe served as vice president, Minnesota Academy of Science; and as chairman, Systematic Section, Botanical Society of America, at American Institute of Biological Sciences meetings.

James Aliferis received a research grant, Fund for the Advancement of Education (Ford Foundation), to study activities of choral groups and centers in the United States.

Harold B. Allen served as member, Conference on Rocky Mountain Linguistic Atlas, Boulder, Colorado, 1951; and consultant, English Language Workshop, Purdue University, 1952. He was named faculty fellow, Fund for the Advancement of Education, Ford Foundation, 1951-52; served as associate chairman, 1951 and chairman, 1952, Conference on College Composition and Communication; member and acting chairman, 1951, Committee on Current English Usage, and member, Committee on Linguistic Resources, National Council of Teachers of English; member, Committee on Communication Courses in College, National Society for the Study of Communication; and member, Advisory Board, Thorndike-Barnhart dictionaries.

William Anderson served as chairman, Committee on Awards for the Best Books in Political Science, 1950-51; and member, Committee on Revision of the Constitution, American Political Science Association; member, Advisory Committee on Census of Governments; and member, American Section, International Institute of Administrative Sciences.

H. Harvard Arnason served as chairman, Committee on Art Education, National Commission of UNESCO, and as adviser to the Department of State and International Secretariat on art education in the United States. He was elected director, College Art Association; trustee, American Federation of Arts; member, Editorial Board, *Magazine of Art*; member, Board of Governors, Minnesota State Art Society; and chairman, Host Committee, National Convention, American Association of Museums. He served as jury member, Art News National Amateur Contest, Midwest Exhibition, Kansas State College; member, Board of Directors, newly formulated National Committee on Design in Industry; and chairman, panel on teaching of painting, College Art Association Convention, January, 1952.

Bernard P. Arnest exhibited in a one-man show, Kraushaar Galleries, New York, 1952; in a one-man show, University Gallery, 1951; and exhibited paintings at the Walker Art Center, Institute of Arts, and other exhibitions. He was educational curator, Walker Art Center, 1951.

Thomas F. Barnhart was named member, Board of Advisory Editors, *Journalism Quarterly*; advisory editor, *Scholastic Editor*; and was recipient of research grants, Minnesota Editorial Association, for series of studies on management operations of weekly newspapers.

W. Donald Beatty was named director, Minneapolis Foreign Policy Association, 1950-51.

Werner W. Boehm served as member, Executive Committee, Family and Child Welfare Division, Community Welfare Council, Minneapolis; member, Committee on Social Work in Psychiatric Setting, Twin City Chapter, American Association of Social Workers; member, Advisory Committee on De-

pendency Research, State Division of Social Welfare; member, Committee on Research Function, Social Work Research Group; member, Committee on Research in Social Studies, National Conference of Social Work; and member, U. S. Committee on International Conference of Social Work.

Cameron Booth exhibited in one-man shows at Walker Art Center, 1950; University of Minnesota, 1950; Bertha Schaefer Gallery, New York, 1950-51-52. He participated in five national exhibitions in 1950, seven in 1951, and ten in 1952; and served as national director, 1951-52, state director, 1950-52, and delegate to national conference, 1952, Artists' Equity Association.

Raymond W. Brink was elected secretary, Section A (Mathematics), American Association for Advancement of Science; and chairman, Joint Committee on Selection of Places of National Meetings, American Mathematical Society and Mathematical Association of America.

May Brodbeck served as member, National Sponsoring Committee, American Studies Association; and associate editor, *Philosophical Studies*.

Jan O. M. Broek served for the Association of American Geographers as follows: member, Council 1950-52; member, Honors Committee, 1950-51; member, Committee on Political Geography (sponsored by National Research Council), involving collaboration on a chapter in "American Geography, Inventory and Prospects"; chairman and organizer of Symposium on South-east Asia, Annual Meeting of the Association at Chicago, March, 1951. He was member, Publicity Committee, 1951-52, and secretary, Section on Regional Geography, 1952, International Geographical Union; member, Editorial Board, Netherlands *Journal for Social and Economic Geography*; member, Advisory Editorial Board, *Far Eastern Quarterly*, 1950-52; member, Board of Directors, Geography Section, Minnesota Education Association, 1950-52; and delegate at Air Force ROTC Curriculum Conference, April, 1952.

Allan H. Brown served on local Committee on Arrangements, American Institute of Biological Sciences meetings, 1951; and received a three-year research grant, Office of Naval Research.

J. William Buchta was member, Board for Allocating Fellowships for the National Science Foundation, National Research Council, 1952.

Harry L. Butler was awarded a Fulbright scholarship for study in France, 1950-51.

Alfred L. Burt was president, Canadian Historical Association; and member, Board of Editors, *Canadian Historical Review*.

John W. Bystrom was incorporator and member of the Board, Citizens' League of Greater Minneapolis, 1951-52.

Robert H. Cameron served as project director, Contract on Stochastic Processes and Functional Equations, Office of Ordnance Research.

Theodore Caplow was awarded a Fulbright Lectureship to France, 1950-51, and was elected professor of sociology by the Faculty of Letters, University of Bordeaux. He received a research grant from Human Resources Research Institute, Air Force, to study internal orientation of air warning network; was member, Research Advisory Committee, Minneapolis Council of Social Agencies; consultant on population and relocation problems, Minneapolis Housing and Redevelopment Authority; and American delegate to the Deuxième Semaine Sociologique, congress of European sociologists sponsored by the Sorbonne, January 1951.

Ralph D. Casey was elected distinguished service member, American Society of Newspaper Editors, 1951. He served as member, American Council on Education for Journalism, 1950-52; editor, Foreign Communications Section of *Journalism Quarterly*, 1950-52; chairman, Publications Committee, Association for Education in Journalism; and member, Special Committee on Trends and Policies in Communications Research, Social Science Research Council, Chicago, 1952. He was named consultant for "Presidential Elections," a film to be produced by Encyclopaedia Britannica Films, Inc., 1952.

F. Stuart Chapin served as consultant to UNESCO 1951-52, spending December, 1951 in Paris, advising on establishment of an International Social Science Research Center.

Mitchell V. Charnley served as member, 1950-52, and chairman, Committee on Needs and Curricula in Education for Television News, National Council on Radio-Television Journalism; co-chairman, Committee on Study of Press Service Wires for Radio Stations, 1951; and member, Board of Judges in

Annual Awards Program, 1951, National Association of Radio News Directors; member, Board of Directors, Northwest Radio News Association, 1950-52; and chairman, Program Study Committee, Minnesota Radio Council, 1951.

Asher N. Christensen was editor, Government Section, Handbook of Latin American Studies, Library of Congress; member, Advisory Committee on Exchange of Students, Department of State; member, Committee on American Graduate School, University of Copenhagen; and member, Executive Council, Midwest Conference of Political Scientists. He was appointed lecturer on American Government, Salzburg Seminar, summer, 1952.

Kenneth E. Clark served as head, Classification and Field Research Branch, Bureau of Naval Personnel, Navy Department, Washington, D. C.; consultant to Personnel and Training Branch, Office of Naval Research, and to Research Division, Bureau of Naval Personnel, Washington, D. C.; and member, Executive Council, Minnesota Psychological Association, 1950-51. He was recipient of a special research grant from Office of Naval Research augmenting and extending research in measurement of interest patterns.

Robert Collins served as design consultant for brochure, Mayor's Committee on Human Relations; was elected president, Twin Cities Chapter, Artists' Equity Association; and honorary member, Delta Phi Delta.

George P. Conger was a delegate of the American Philosophical Congress to the Silver Jubilee Session of the Indian Philosophical Congress, at Calcutta, December, 1950; and contributed by invitation paper "Did India Influence Early Greek Philosophy?" for *Philosophy East and West* (University of Hawaii).

Maurice F. Connery served as chairman, Social Casework Committee, State Welfare Conference; member, Committee on Social Work Education, and member, Committee on Social Work in the Psychiatric Setting, American Association of Social Workers; member, Governor's Committee on Clinical Services and Penal Institutions; and member, Nominating Committee, National Conference of Social Work, Region V.

Russell M. Cooper served as chairman, Committee on Liberal Arts Education, North Central Association of Colleges and Secondary Schools; chairman, Committee of Management, University YMCA; member, Advisory Committee on General Education, U. S. Office of Education; and chairman, Sectional Planning Group, National Meeting of UNESCO.

Louis O. Coxe was recipient of an award for the most promising playwright of 1951, *Billboard Magazine*; and was voted author of Best Play of 1951, Outer Circle of Drama Critics, New York.

Charles L. Critchfield was recipient of research grant administered through Office of Naval Research for special studies involving cosmic rays, the upper atmosphere, and balloon flight, 1951-52.

A. Orville Dahl served as official delegate to Seventh International Botanical Congress, Stockholm, Sweden, July 7-20, 1950; research worker, Cell Research Institute, Karolinska Institutet, Stockholm, October, 1950 to March, 1951; and continued as member, Pollen Committee, American Academy of Allergy.

Harold C. Deutsch served as director of Studies on Western Europe, National War College, fall semester, 1950; member, Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 1950-52; member, Board, Foreign Policy Association; and member, Board of Editors, *Journal of Modern History*, 1950-51.

Norman J. DeWitt was recipient of special faculty study fellowship, American Council of Learned Societies.

Monroe D. Donsker was participant, contract on stochastic processes, Office of Ordnance Research.

Allen Downs was recipient of two research grants for work on design film (with Jerome Liebling), 1950-51 and 1951-52; had photographs published in *American Photography Magazine*, 1951; and exhibited at: Six States Photography Show, Milwaukie Art Institute (2 pictures-purchase award); Contemporary Art Museum, Houston, Texas, 1951; and one-man show, Fort Wayne Art Museum, 1952.

Kenneth F. Duffin was organizing member, Child Guidance Council for this area.

Dorothy T. Dyer was named vice president, National Council on Family Relations, 1951-52; secretary, Minnesota Council on Family Life, 1952; and member, Governor's Commission on Youth.

Samuel Eddy prepared U. S. Public Health Service Civil Service examination questions; and was external examiner in zoology for University of Manitoba.

Richard M. Elliott was member, Subcommittee on Ethics of Publication, American Psychological Association; and director, Minnesota Human Genetics League.

W. Edwin Emery, Jr., received the national award of Sigma Delta Chi for research in journalism, 1950. He was elected to Board of Directors, and was named chairman, Education Committee, Minnesota Chapter of the Public Relations Society of America; and served as member, editorial page staff, St. Paul *Pioneer Press* and *Dispatch*, summers of 1950, 1951, and 1952.

David V. Erdman served as member, Bibliography Committee, Modern Language Association, Sections, English IX and General Topics II; critic editor in charge of Blake and Byron reviews for "The Romantic Movement: A Selective and Critical Bibliography," published annually in *Philological Quarterly*; and co-chairman, local Literature Club. He was joint initiator, Modern Language Association conference on "The Beginnings of l'Art pour l'Art," 1950; and editorial consultant, Publications of the Modern Language Association, and University of Chicago Press, 1950-51. His manuscript "William Blake's War and Peace: A Poet's Interpretation of the History of His Own Times" received honorable mention in Modern Language Association and Macmillan Publishing Company contest, December 28, 1951.

Herbert Feigl served as member, Board of Trustees, Institute for the Unity of Science, American Academy of Arts and Sciences, Boston, 1950-52; as member, Advisory Boards of: *Philosophy of Science* (journal) and "International Encyclopedia of Unified Science," University of Chicago Press; and as co-editor, *Philosophical Studies*, University of Minnesota Press.

Jacques A. Fermaud served as consular agent for France in Minneapolis, 1950-51.

Leon Festinger served as consultant to Human Relations Research Center, Randolph Field, U. S. Air Forces; consultant to Washington Public Opinion Research Center, Seattle; member, Committee on Social Behavior, Social Science Research Council; consultant to Research Center for Group Dynamics, University of Michigan; and member, Editorial Advisory Board, *Human Relations*. He was recipient of a grant from Rockefeller Foundation to visit Institute of Preventive Medicine in Leyden, Holland, to help establish a research program in social psychology.

Paul Fetler's "Violin Sonata No. 2" received honorable mention at the National Composition contest of The Friends of Harvey Gaul, 1950. His "Symphony No. 2" had its first performance at the Annual Symposium of American Orchestral Music, Rochester, New York, November 5, 1951; and his "Comedy Overture" was performed by the Minneapolis Symphony Orchestra, March 2, 1952.

William W. Fletcher was named assistant editor, "In the Periodicals" section, *Quarterly Journal of Speech*.

Margaret M. Forbes served as consultant, Latin Curriculum Committee, Minnesota Department of Education.

Paul D. Frazier exhibited in three sculpture exhibitions.

Albert W. Frenkel served as chairman, Minnesota Section, and member, Executive Committee, American Society of Plant Physiologists; and member, Editorial Committee, *Annual Reviews of Plant Physiology*. He received a grant from Rockefeller Foundation for isotope research.

Bernard R. Gelbaum served as project director, Contract on Theory of Games, Office of Naval Research.

Earl R. George served as a member, Standing Committee on American Music, Music Teachers' National Association, 1950. He was recipient of Illinois Wesleyan University, Collegiate Choir Commission award, 1951. He had many compositions selected for performance during 1951-52.

J. Edward Gerald was elected vice president, 1951, president, 1952, and chairman, Committee on Professional Freedom and Responsibility of the

Press, 1951-52, Association for Education in Journalism; and was member, Board of Editors, *Journalism Quarterly*, 1950-52.

Howard Gilkinson was a member, Graduate Committee, Speech Association of America, 1950-52; and served as judge for speech contests, South Dakota Intercollegiate Forensic Association and the Minnesota State High School League, 1952. He received a research grant, Office of Naval Research, for basic studies on individual and group behavior, 1951-52.

Kenneth L. Graham served as member, State Board of Education Committee, 1950-52; vice chairman, 1950-52, and chairman, 1952, Children's Theatre Conference Board, American Educational Theatre Association; and editorial adviser, *Educational Theatre Journal*, 1952.

Mark A. Graubard was member, Editorial Board of *Isis*, History of Science Magazine, published at Harvard University.

John W. Gruner was awarded U. S. Army Signal Corps Laboratories contract for investigation of twinning in quartz crystals; and Atomic Energy Commission contract for research on mineralogy and origin of uranium deposits. He is president-elect, Minnesota Chapter of Sigma Xi.

Richard G. Guilford was named first vice president, State Conference on Social Work, 1950-51; member, Governor's Advisory Committee on Youth, 1950-52; member, Program Committee, Midwest Conference, Child Welfare League of America; and chairman, Committee on International Social Work, Twin City Chapter, American Association of Social Workers.

Alrik Gustafson was knighted "Adolph in the Royal Order of The North Star" by King Gustaf VI.

John W. Hall received a two-year grant from National Science Foundation for paleobotanical research.

Agnes Hansen served as chairman, Committee on Registration and Personnel, meeting of the American Institute of Biological Sciences, 1951; and chairman, Publicity Committee, Graduate Women's Scientific Research Fraternity (affiliate AAAS).

Herbert Heaton continued as secretary, Committee on Research in Economic History, Inc.; served as member, Board of Trustees, and member, Editorial Board, Economic History Association (United States); and member, Council of Economic History Society (England).

William T. Heron was elected to honorary membership in The Dental Forum, Milwaukee, Wisconsin.

Alexander C. Hodson served as collaborator with U. S. Bureau of Entomology and Plant Quarantine; and was elected secretary, Entomological Society of America.

Paul L. Holmer served as member, Executive Committee, 1950-52, and chairman, Philosophy Section, 1951, National Council on Religion in Higher Education; book review editor, *Lutheran Quarterly*, 1950-52; and secretary, Swenson-Kierkegaard Fellowship Committee.

William S. Howell was elected president, Minnesota Association of Teachers of Speech, 1950-52; served as member, Intercollegiate Debate and Discussion Committee, Speech Association of America, 1950-52; member, Executive Committee, and vice president, Delta Sigma Rho, 1950-52; and consultant, Minnesota State High School League in the planning and execution of the interscholastic speech activities program.

Lloyd C. Hulbert was elected to full membership, Washington State College Chapter of Sigma Xi, May, 1952.

Gertrude Hull served as voice judge in Minneapolis Aquatennial music contest, July, 1951.

Thomas B. Irving was elected president, Minnesota Chapter, American Association of Teachers of Spanish and Portuguese, 1951-52.

Paul S. Ivory served as vice president, 1951-52, and clinic chairman and executive secretary, annual clinic, 1951-52, Minnesota Music Educators' Association; honorary secretary for Admissions and Placement, School of Education, Harvard University, 1952; and chairman, State Advisory Committee on Teacher Education, Minnesota Department of Education, 1952.

James J. Jenkins was elected to full membership, Minnesota Chapter, Sigma Xi. He was awarded an Office of Naval Research grant for research in verbal behavior and for interest research. He served as chairman, Program Committee for the Annual Meeting, and member, Public Relations Committee, Minnesota Psychological Association; consultant to the Human Resources

Research Institute, U. S. Air Force, Maxwell Air Base, Alabama; and member, Interviewing Board, State Civil Service, 1951.

Tom B. Jones was member, Executive Committee, Minnesota Society, Archaeological Institute of America; and member, Fulbright Selection Committee.

Philip D. Jordan served as consultant, St. Paul Library; consultant, National Conference, Folklore for Youth; and director, American Folk Arts Foundation, Inc.

Gerhard K. Kalisch was participant, Contract on Theory of Games, Office of Naval Research.

Blanche Kendall was elected secretary, Minnesota Music Teachers' Association, 1950-52.

John C. Kidneigh served as national president 1950-51, secretary of the Board, 1952, and member, Committees on Accreditation and Advanced Curriculum since 1950, American Association of Schools of Social Work; delegate, representing American Association of Schools of Social Work, on National Council on Social Work Education, 1950-52; member, and chairman since March, 1952, National Social Service Advisory Council, U. S. Veterans Administration; chairman, Program Section on Social Work Personnel, National Conference of Social Work, 1951-52; member, Board of Directors of following social agencies: Family and Children's Service, Minneapolis; Home Service Division, American Red Cross, Minneapolis; Community Chest and Council of Hennepin County; and Hennepin County Welfare Council. He was special consultant to: Winter General Hospital, Topeka, Kansas; St. Cloud Veterans Administration Hospital, St. Cloud, Minnesota; Minnesota Parole Board; Minnesota Youth Conservation Commission; Minnesota Division of Institutions; Minnesota Division of Social Welfare; Minnesota Department of Civil Service; Hennepin County Welfare Board.

Fred L. Kildow served as director, National Scholastic Press Association; director, Associated Collegiate Press; director, Minnesota High School Press Association; and associate editor, *Scholastic Editor*.

Gisela Konopka served as consultant, Office of Public Health and Welfare, High Commissioner in Germany, summer, 1950 and summer, 1951. She was member, Advisory Committee on German Youth Project, National Social Welfare Assembly; vice chairman, Committee on Institutions, Governor's Advisory Committee on Youth; chairman, Committee on Youth Participation, Governor's Youth Conference, 1952; member, Executive Committee, Group Work and Recreation Division, Welfare Council, Minneapolis; chairman, Twin Cities Chapter, American Association of Social Workers; and regional representative and chairman, Group Work in Clinical Settings Committee, American Association of Group Workers. She was named fellow, American Association of Orthopsychiatry.

August C. Krey was named vice president, Minnesota State Historical Society.

Joseph J. Kwiat served as member, Advisory and Nominating Committee, Modern Language Association panel on "Literature and the Related Arts," 1952.

Donald B. Lawrence received a grant from the Office of Naval Research for research in Southeastern Alaska. He served as botanical editor, *Ecology*; and was chairman, Minnesota Committee on Wild Rice; chairman, Committee on Special Events and Transportation, chairman, Local Committee on Arrangements for annual meeting and field trips of Ecological Society of America, American Institute of Biological Sciences; chairman, Subcommittee on Ecology as related to glacier studies, and member, Committee on Glaciers, American Geophysics Union. One of his published research papers was selected for reprinting in *Science Annual*, Smithsonian Institution, 1951.

Werner Levi served as member, Board of Directors, Jewish Family Service, St. Paul. He went as special lecturer to Universities of Bombay and Delhi and other colleges in India, fall of 1950; Oxford University and London School of Economics, January, 1951; and Universities of Leyden and Amsterdam, April, 1951.

Jerome Liebling exhibited in University Gallery, University of Minnesota, March 1952; in "51 Young American Photographers," Museum of Modern Art, New York City, September 1950; in "6 States Photography," Milwaukee Art Institute, September 1950; in Portland Art Museum, Portland, Oregon,

December 1951; in De Cordova and Dana Museum, Lincoln, Massachusetts, May 1952; and a number of his photographs appeared in *American Photography*, August 1951.

Benjamin E. Lippincott was deputy-commander and chief of operations and training, Volunteer Air Force Reserve Group, 9,746, Minneapolis; chairman, Panel of the Franklin D. Roosevelt Committee on Awards, 1950-51, and member, Program Committee for the Annual Meeting, 1951, American Political Science Association.

Warren S. Loud was participant, Contract in Non-Linear Mechanics, Air Corps Research.

Kenneth MacCorquodale was participant in verbal behavior research project, Office of Naval Research.

Douglas G. Marshall served as resource person for Governor's Committee on Problems of Aging; acting chairman, North Central Regional Committee on Population Research; and consultant, analyzing community school problems, Walker, Minnesota.

Herbert McClosky was granted a three-year Faculty Research Fellowship, Social Science Research Council, 1951. He was elected to the Executive Committee, Midwest Conference of Political Scientists, 1952.

James W. McConkie had three choral compositions selected for performance on the First Annual Southwestern Symposium of Contemporary Music, University of Texas, March, 1952.

Errett W. McDiarmid was named vice president, Minnesota Library Association, 1950-51; and trustee, James J. Hill Reference Library, St. Paul, 1950-52.

William A. McDonald was member, Special Committee, American Philological Association; and vice president, Latin Conference, Minnesota Education Association.

Charles H. McLaughlin served as member, Committee on Codification and Progressive Development of International Law, International Law Association; member, Committee on Codification, Section on Comparative and International Law, American Bar Association; and was elected vice president, Minnesota United Nations Association.

Paul E. Meehl, served as member, Committee on Test Standards, American Psychological Association, 1950-52; member, Legislative Committee, Minnesota Psychological Association, 1952; member, Executive Council, Midwestern Psychological Association, 1951-52; consultant in Clinical Psychology, U. S. Veterans Administration, Fort Snelling, Minnesota; and member, research team on verbal behavior, Office of Naval Research.

David J. Merrell was recipient of research grant, Office of Naval Research, for the study of the genetics of laboratory populations of drosophila.

Clarence E. Mickel was elected president, International Great Plains Entomological Conference, 1950; corresponding secretary, Minnesota Gladiolus Society, 1950; member, Regional Technical Committee on Entomology, and member, Regional Technical Committee on Insecticides and Herbicides, North Central States.

Lennox A. Mills was named chairman, Round Table on Southeast Asia, Annual Meeting, American Political Science Association, 1951.

Genevieve F. Miner served as member, Casework Committee, State Conference of Social Work, 1950-52.

Dwight E. Minnich was member, Executive Committee, American Society of Zoologists; representative of the American Society of Zoologists in the American Association for the Advancement of Science; member, Board of Trustees, Mt. Desert Island Biological Laboratory, Salsbury Cove, Maine; president, Minnesota Human Genetics League; member, Board of Directors, Hennepin County League for Planned Parenthood; and editor, *Biological Series*, Appleton-Century-Crofts.

D. Ross Moir was awarded a grant from Arctic Institute of America for research on northern floras.

Elio D. Monachesi was appointed member, 1951, and adviser, 1952, Governor's Committee to study adult penal institutions of the State of Minnesota; elected to Executive Committee, Midwest Sociological Society, 1952; and elected to Phi Beta Kappa, March, 1952.

Robert E. Moore was editorial reader, Modern Language Association and *Philological Quarterly*.

Thomas Morley served on Arrangements Committee, American Institute of Biological Sciences, 1951.

Philip G. Morton exhibited in Walker Art Center Exhibit of Constructions and Mobiles, July 1950; in Annual Oil Sculpture Exhibition, San Francisco Art Association, 1951; in Walker Art Center "Artists' Workshop," 1952; and in one-man show of jewelry and bronze sculpture, Leonard Linn Gallery, Winnetka, Illinois, 1952. He received the Emmanuel Walter purchase prize for cast bronze mobile: "Fallen Angels."

Verval J. Mueller was chairman, Committee on Admissions Policies and Selection of Students for Schools of Social Work, American Association of Schools of Social Work; and chairman, Committee on Medical Social Case Records, American Association of Medical Social Workers.

Kenneth Murase served as member, Committee on Social Work in Psychiatric Setting, and member, Subcommittee on Social Work in Mental Hospitals, American Association of Social Workers; member, Executive Committee, and member, Speakers Bureau, United Citizens League, Minneapolis; and member, Editorial Board, *Japanese-American Journal*, Minneapolis.

Malcolm H. Myers received a Guggenheim Fellowship Award for study in Europe, 1950, and was awarded a renewal of the Fellowship for 1951. He exhibited in a one-man show of paintings at Dorothy Rood's "High Acre Gallery." He served as chairman, Membership Committee, Artists' Equity.

Arthur E. Naftalin was a member, State Central Committee, Democratic-Farmer-Labor Party.

Benjamin N. Nelson was named Carnegie fellow to Columbia University, 1952-53; consultant to Radio Free Europe, sponsored by the National Committee for Free Europe, Inc.; and consultant to UNESCO, 1951-52.

Lowry Nelson served as consultant, Mutual Security Agency, Washington, D.C., 1952; member, Committee to Develop Research Areas on Social Aspects of Agricultural Cooperatives, Farm Credit Administration and Institute of Cooperation, Washington, D. C., 1952; member, Permanent Agricultural Committee, International Labor Office, Geneva; consultant, President's Water Resources Policy Commission; member, Subcommittee on Living Arrangements, Minnesota Commission on Aging; member, Committee on Agriculture, National Planning Association; and member, Committee on Rural Education Yearbook, National Society for the Study of Education. He was recipient of awards from Louis W. and Maud Hill Family Foundation for a study of parent-child relations in a sample of Minnesota farm and non-farm families; and from American Philosophical Society for a re-study of two Utah farm villages, 1950-51. He served on the Executive Council, American Sociological Society, 1951-52; Board of Directors, Social Science Research Council, 1950; as member, North Central Regional Committee of Rural Sociologists sponsored by the Farm Foundation, Chicago; and on the Executive Committee, Society for the Study of Social Problems.

Evar D. Nering was participant, Contract on Theory of Games, Office of Naval Research.

Edward P. Ney was recipient of research grant administered through Office of Naval Research for special studies involving cosmic rays, the upper atmosphere, and balloon flight, 1951-52.

Alfred O. C. Nier served as member, Board for Allocating Research Grants, National Science Foundation, 1952.

Paul M. Oberg served as president, Minnesota Music Teachers' Association, 1950-52; executive secretary-treasurer, Minnesota Public School Music League; member, Executive Board, Minnesota Music Educators' Association; member, Graduate Commission, National Association of Schools of Music; and member, Executive Board, St. Paul Civic Opera Association.

William Van O'Connor served as one of the judges for *Poetry Magazine's* Annual Awards, 1951-52; member, Advisory Committee for Programs on 20th Century Literature, Modern Language Association; and associate editor, *American Quarterly*, University of Pennsylvania.

Anne W. Oren served as program chairman, Minnesota State Welfare Conference; and past chapter chairman, American Association of Social Workers.

Gerald B. Ownbey was chairman, Field Trip Committee, American Society of Plant Taxonomists, American Institute of Biological Sciences, 1951.

Alexander G. Park was awarded the Area Research Training Fellowship, Social Science Research Council, 1950.

Donald G. Paterson served as chairman, Public Relations Committee, and consultant to Committee on Ethics, Minnesota Psychological Association; member, Board of Trustees, Minneapolis Vocational Guidance Association; editor, *Journal of Applied Psychology*; member, Board of Editors, American Psychological Association; and chairman, Special Subcommittee, American Association of University Professors. He received a special research grant from U. S. Air Force on Measurement of Vocational Interests of Two Contrasting Groups of Officers. He was named a director, Minnesota Human Genetics League.

Margaret S. Pepper was member, National Conference of Catholic Charities, 1950; and member, Ethics and Civil Rights Committees, American Association of Social Workers, 1950.

Ruby B. Pernell served as member, Recruiting and Executive Committees, and chairman, Professional Education Committee, American Association of Social Workers, 1951-52; regional representative, member of Executive Board, Group Therapy Committee, and chairman, Professional Education Committee, American Association of Social Workers, 1951-52; program chairman, Minnesota Welfare Conference, 1950-51; chairman, Governor's Advisory Committee on Child Caring Institutions, 1951; and member, Committee on Camp Fees and Financing, Community Chest of Hennepin County, 1951-52. She was consultant specialist to the Community and Youth Activity Division, American Government in Germany, in 1951.

Harold S. Quigley served as member, Board of Directors, Governmental Affairs Institute, Washington, D. C., 1950-52. He was elected president, Far Eastern Association, 1950-51.

Walter W. Quirt exhibited in one-man show, New Gallery, New York, 1952.

Robert C. Rathburn was a member, Publicity Committee, Fall Conference for College Teachers of Language and Literature, 1950-52; and was elected to membership, Minnesota Chapter, Pi Delta Phi, 1951.

Sheldon C. Reed served on Editorial Board, *Journal of Heredity*, 1952; was secretary, American Society of Human Genetics, 1951; secretary, Minnesota Human Genetics League, 1951; and director, Hennepin County Planned Parenthood League, 1951. He was recipient of research grants as follows: Minnesota Human Genetics League, 1951-52; State of Minnesota, Division of Public Institutions, 1951; American Cancer Society, 1952; and U. S. Public Health Service, 1952.

Glenn A. Richards was member, Committee on Insecticide Resistance, National Research Council, 1951; and assistant editor, *Annals of the Entomological Society of America*, 1951. He was awarded a research grant, National Institute of Health for studies on insect cuticle, 1950-51; and research contracts, Office of the Surgeon General, U. S. Army, for studies on insect cuticle, 1950, and on intracellular bacteroids in insects.

Reginald Robson participated in research project on relationship between various types of communication with group morale and productivity, Office of Naval Research, 1951-52.

Josephine Lutz Rollins was recipient of Rockefeller grant for regional study "Minnesota, Mid-Century" which resulted in 40 paintings. She served as local chairman, Biennial Convention, Delta Phi Delta, 1952.

John Rood was elected vice president, Minnesota Sculpture Society, 1951. He exhibited in Six Months Retrospective Exhibition, Minnesota Historical Society; and in one-man exhibition, Associated American Artists, New York. He was awarded first prize for sculpture, Minnesota State Fair.

Ephraim Rosen served as member, Examining Board for selection of clinical psychologists in Minnesota State Hospitals, 1951; and as member, Program Committee, Division of Personality and Social Psychology, American Psychological Association, 1951-52. He was elected to full membership, Sigma Xi (California Chapter), and participated in research in verbal behavior, under Office of Naval Research grant.

Isaac Rosenfeld served as assistant editor, *Jewish Encyclopedic Handbook*, 1951.

Ralph G. Ross was member, Editorial Board, *The Standard*, official publication of the American Ethical Union; and was named one of seven individuals in the United States to prepare and publish a report on World Political Institutions, 1952.

Wallace A. Russell was principal investigator, Office of Naval Research project on The Role of Language in Behavior. He was elected to full membership in Sigma Xi (Iowa Chapter).

H. Etta Saloshin served as member, Group Work Division, State Welfare Conference, 1951-52; member, Nominating Committee and Committee on Social Work in Mental Hospitals, American Association of Social Workers, 1951-52; member, Committee on Professional Education, and chairman, Committee on Professional Orientation Day, American Association of Group Workers, 1951-52; and member, St. Anthony Study Committee and Committee on Services for High School Youth, Minneapolis Council of Social Agencies.

Stanley Schachter served as consultant to: American Education Fellowship, Minnesota Jewish Council, and Commission on Democracy in Minneapolis Public Schools; and was member, Minnesota Regional Training Conference in Group Dynamics. He was appointed research coordinator, Committee on Research in Inter-Group Relations in Europe.

Roy A. Schuessler was treasurer, Independent Consolidated District Number 38, Ramsey County; regional governor (five states) and member, Board of Directors Twin Cities Chapter, National Association of Teachers of Singing.

George M. Schwartz served as chairman, State Mapping Advisory Board, 1950-52; adviser on Geology, U. S. Geological Survey and U. S. Bureau of Mines, Defense Minerals Exploration Administration, 1950-52; member, Geologic Glossary Committee, American Geological Institute; and member, Committee on 50th Anniversary Volume, Economic Geology publications.

Wilfrid S. Sellars was a member, Rockefeller Conference on Semantics, Monterey, California, 1950; and editor (with Herbert Feigl), *Philosophical Studies*, University of Minnesota Press.

Lloyd M. Short was member, Board of Directors, and Committee on Personnel, Citizens League of Greater Minneapolis; member, Committee on Training for Government Service, Association of Land-Grant Colleges and Universities—U. S. Department of Agriculture; member, Executive Council, Minnesota Institute of Government Research; and member, Executive Board, Inter-University Case Program, Washington, D. C. He was elected vice president, American Political Science Association, 1951-52.

Edward H. Sirich served as acting consular agent for France in Minneapolis, 1951-52.

Donald K. Smith was member, Language Arts Curriculum Committee for the State of Minnesota, 1950-52; contributor, Commission on the English Curriculum, National Council of Teachers of English, 1950-52; and chairman, Committee on Experimental Research in the Teaching of Communication at the Elementary and Secondary School Level, National Society for the Study of Communication, 1952.

Henry Nash Smith was recipient of the John H. Dunning Prize of the American Historical Association, 1950; and the Bancroft Award of Columbia University, 1951. He served as advisory editor, *American Literature*, *American Quarterly*, *Southwest Review*, and *Journal of the History of Ideas*; as member, Program Committee, Modern Language Association; and as member and secretary, Committee on American Civilization, American Council of Learned Societies.

Nelson T. Spratt was chairman and discussion leader, Section on "Early Metabolism of the Embryo," Conference of the New York Academy of Science, New York, 1951. He received a grant from the Office of Naval Research, and from the U. S. Public Health Service; and was elected fellow, American Association for the Advancement of Science.

H. Burr Steinbach served as consultant, National Science Foundation; member, Advisory Group in Biology, Office of Naval Research; member, Governing Board, American Institute of Biological Sciences; trustee and member, Executive Committee, Marine Biological Laboratory, Woods Hole, Massachusetts; member, Macy Conference on Nerve Impulse; member, Central Committee on Survey of Physiology, American Physiological Society; vice president, Society of General Physiologists; and member, Editorial Board, *Biological Bulletin*. He was awarded a research contract by Office of Naval Research.

Martin Steinmann was chairman and executive secretary, Fall Conferences for College Teachers of Languages and Literature in the Northwest.

Malcolm B. Stinson served on following committees: Research Advisory Committee, Minneapolis Community Chest and Council; Local Steering Committee, Social Work Research Group; and Subcommittee on Housing of the Aged, Governor's Commission on Aging. He served as consultant to the Minnesota Department of Social Welfare.

John M. Sullivan was secretary, Lambda Alpha Psi, 1950-52; charter member, local chapter, Pi Delta Phi, 1951; member, General Committee and Committee for the Romance Languages Discussion Group, College Teachers of Languages and Literature in the Northwest, 1950.

Charles E. Swanson served as member, advisory panel on training of psychological warfare personnel, U. S. Air Force; member, Council on Communications Research, Association for Education in Journalism; and member, Advisory Committee on Research, American Marketing Association. He was awarded research grant by Office of Naval Research.

Allen Tate was one of six representatives of the United States at a festival sponsored by the International Congress for Cultural Freedom, Paris, May, 1952.

Marvin J. Taves was director of research grant from Louis W. and Maud Hill Family Foundation.

George A. Thiel served as member, Governor's Advisory Committee on Water, and chairman, Subcommittee on Ground Water; member, Public Relations Committee, chairman, Regional Subcommittee, and member, Minnesota Regional Committee on Education, American Geological Institute; and advisory consultant, Committee on Conservation Education, Minnesota Department of Education.

David W. Thompson served as news editor, 1950-51, *Educational Theatre Journal*; member 1951, and chairman, 1952, Editorial Board, American Educational Theatre Association; and as critic-judge for state-wide speech and theatre activities, Minnesota State High School League, 1950-52.

Miles A. Tinker was consultant, National Society for the Prevention of Blindness; invited participant in planning program of illumination, visual performance, and health in industry, Council of Industrial Health; invited participant, Conference on Light, Vision and Seeing, General Electric Laboratory, Cleveland; and consultant, *Handbook of Biological Data*, American Institute of Biological Sciences, National Research Council.

Donald Torbert was awarded a research grant on Midwest architecture, 1951-52.

Harold Tovish exhibited in: Walker Art Center (purchase prize); Minneapolis Institute of Arts; Sculptors Guild, Inc., New York City, 1952; and Whitney Museum of American Art, New York, 1952.

George B. Vold was named member, Research Advisory Committee, Highfields Project, Hopewell, New Jersey, New York Foundation and the Vincent Astor Foundation, 1950; chairman, special Governor's Committee to report on the quality of prison care provided for Minnesota adult criminals, 1951-52.

George A. Warp was named chairman, Tort Liability Committee, 1950-51, and member, Committee on Far Eastern Law, American Bar Association. He served in Japan from September, 1951 to March, 1952 as consultant for the Public Administration Clearing House, Chicago, on a project financed by the Rockefeller Foundation and logistically supported by General Headquarters, SCAP.

John C. Weaver served as expert consultant, Committee on Geography and Geophysics, and member, Panel on Arctic Environments, Research and Development Board, National Military Establishment, Washington, D. C., 1950-52; member, 1950, and chairman, 1951-52, Committee on Geography, Advisory to the Office of Naval Research, National Research Council; member, Executive Committee, 1950-51, member, Council, 1950-52, chairman, 1950-51, and member, 1951-52, Publications Committee, and member, Editorial Board of the *Annals*, 1951-52, Association of American Geographers; and as member, Publications Committee, International Geographical Union, 1950-52. He was awarded research grant for basic research in Economic Geography, Office of Naval Research. He is secretary-treasurer elect, Minnesota Chapter, Society of the Sigma Xi, 1951-52; member, Board of Directors, Geography Section,

Minnesota Education Association, 1950-52; consulting editor, Series in Geography, McGraw-Hill Book Company, Inc., New York, 1951-52; and research consultant, Midwest Barley Improvement Association, Milwaukee, Wisconsin, 1950-51. In 1951 he was elected fellow, American Association for the Advancement of Science.

Frank M. Whiting was named member, Advisory Council, member, Executive Board, and secretary, Panel on Graduate Studies in Theatre, American Educational Theatre Association; secretary, Panel on Graduate Studies in Theatre, AETA Convention, Chicago, 1951; and president, North Central Theatre Association, 1951-52.

Dorothy Whitmore served as consultant, Children's Service, St. Paul, Minnesota; member and chairman, Membership Committee, Twin City Chapter, American Association of Social Workers. She was named fellow, National Institute of Mental Health.

Harold W. Wilson was awarded an internship by National Advertising Executives' Association, 1950.

Gerald Willen had one of his short stories listed under "Distinctive Short Stories" in *The Best Short Stories of 1951*.

John H. Winckler was recipient of research grant, Office of Naval Research, for special studies involving cosmic rays, the upper atmosphere, and balloon flight, 1951-52.

Frank H. Wood was holder of Oberlaender Foundation grant for study in Germany, summer 1951.

Herbert E. Wright, Jr., was named geologist for Iraq-Jarmo Project, Oriental Institute, University of Chicago; and consultant on desert geomorphology, Arctic, Desert, Tropic Information Center, U. S. Air Force.

Helen J. Yesner served on In-Service Training Committee, and Staff Planning Committee, Hennepin County Chapter, American Red Cross.

E. William Ziebarth was recipient of the distinguished news analysis award, Minnesota Radio Council, 1951; of the first award for news interpretation, Institute for Education by Radio, 1952; and of the award for furthering international understanding, Minnesota Radio Council, 1952. His contribution to the "This I Believe" series was selected by the U. S. Department of State for translation into six languages to be distributed abroad through United States Information Services. He was named a member, Radio Problems Committee, Speech Association of America; chairman, Radio Education Advisory Committee, St. Paul Board of Education; member, Communications Committee, Minneapolis Board of Education; member, Editorial Board, *Speech Monographs*; member, Advisory Committee, Minnesota Public Health Association; and member, Board of Directors, Minnesota Radio Council. He was selected as delegate to the International Conference, Problems of Asiatic Relations, Tokyo, Japan, 1952.

Institute of Technology—John D. Akerman was appointed to membership on the Advisory Committee, Physics, Mathematics, and Engineering Section, National Science Foundation, 1951-52.

Axel B. Algren served as consultant, Minnesota Department of Health in connection with hospital survey and construction program; and was a member, Board of Education, Minnehaha Academy, Minneapolis. For the American Society of Heating and Ventilating Engineers he served in 1951-52 as follows: member, Committee on Research; chairman, Technical Advisory Committee on Air Cleaning; and member, Technical Advisory Committees on Heating and Air Conditioning as Related to Plant and Animal Husbandry, Heat Distribution Within and Behind the Panel, and Controls for Panel Heating and Cooling.

Neal R. Amundson was awarded research contracts by Atomic Energy Commission and Office of Naval Research.

Paul Andersen was named consultant, Corps of Engineers, U. S. Army, Engineer Research Center, Fort Belvoir, Virginia, 1952.

Richard T. Arnold was editor, Vol. 32, *Organic Syntheses*, 1952. He served on the Fellowship Committee, Atomic Energy Commission, and made an extensive lecture tour for the American Chemical Society, 1951.

John V. Borry aided in review of hospital heating systems for Minnesota State Department of Health; and served as secretary, Minnesota Chapter, American Society of Heating and Ventilating Engineers.

Walter S. Bradfield was named fellow, British Interplanetary Society. He was awarded research contract by Wright Air Development Center.

Robert C. Brasted served as tour captain, Younger Chemists' International Project, Ford Foundation-ECA-American Chemical Society, 1951; and as consultant, Operations Research Office, The Johns Hopkins University.

Stanley R. Brown was named to prepare and grade engineers-in-training examinations in electrical engineering, Minnesota Board of Registration for Architects, Engineers and Land Surveyors.

Paul A. Cartwright assisted in preparation and grading of engineers-in-training examinations and in grading professional engineers examinations for electrical engineers, Minnesota Board of Registration for Architects, Engineers, and Land Surveyors. He served as chairman, Committee to prepare faculty roster for Minnesota State Department of Business Research and Development, American Society for Engineering Education, and as secretary-treasurer, Minnesota Section, American Institute of Electrical Engineers, 1952.

Loyst C. Caverley assisted in preparation and grading of engineers-in-training examinations in electrical engineering, Minnesota Board of Registration for Architects, Engineers, and Land Surveyors.

Robert G. Cerny was elected member, Church Architects Guild of America, and is a "Recognized Architect" of the American Hospital Association. He served as member, Committee on Living Arrangements, Governor's Commission on Aging; executive secretary, Civic Center Development Association; and member, Lower Loop Committee, Minneapolis Chamber of Commerce.

Winston A. Close was named director and secretary, Minnesota Society of Architects; director, Walker Art Center, Minneapolis; and member, Education Committee, (Minneapolis Chapter), American Institute of Architects.

Bryce L. Crawford, Jr., served as chairman, Advisory Committee on Solid Propellants, Navy Bureau of Ordnance; member, Panel on Physical Chemistry, Advisory to the Chemistry Branch, Office of Naval Research; member, Committee on Physical Chemistry, and member, Committee on Infrared Absorption Spectra, National Research Council; member, Executive Committee, Division of Physical and Inorganic Chemistry, American Chemical Society; secretary, Division of Chemical Physics, and member, Executive Committee, American Physical Society; and associate editor, *Journal of Chemical Physics*.

Alfred E. Cronk was elected vice chairman, 1950-51, and chairman, 1951-52, Aeronautical Division, American Society for Engineering Education.

Edward W. Davis has for years been a leading contributor in the field of iron ore beneficiation, and now serves as a special consultant in connection with preparations for commercial taconite development in northeastern Minnesota.

Harry A. Doeringsfeld served on committee to prepare examinations for architects, engineers and land surveyors, Minnesota State Board of Registration, 1950-52.

Ernst R. G. Eckert was consultant, Lewis Flight Propulsion Laboratory, National Advisory Committee for Aeronautics; chairman, Technical Committee on Aircraft Heat Transfer, Heat Transfer Division, American Society of Mechanical Engineers; and editor, Yearly Review on Heat Transfer in *Industrial and Engineering Chemistry*, 1952.

Coleman D. Fitz served on State Civil Service Defense Training program, 1950; and participated in Snow, Ice, and Permafrost Research Establishment contracts, U. S. Army Corps of Engineers, 1951-52.

Watson B. Fulks was awarded a research contract, Office of Naval Research, 1951-52.

Newman A. Hall served as consultant, Naval Ordnance Laboratory and National Bureau of Standards; chairman, Committee on Letter Symbols for Heat and Thermodynamics, and member, Committee on Letter Symbols for Aeronautical Sciences, American Standards Association; member, Subcommittee on Combustion, National Advisory Committee for Aeronautics; and member of following committees of the American Society of Mechanical Engineers: Subcommittee on Pulsating Flow, Committee on Thermal Physical Properties, Heat Transfer Division, and Education Committee, Gas Turbine Division. He was editor, *Heat Power News and Views*, sponsored by Mechanical Engineering Division, American Society for Engineering Education. He received a special research grant from Research Corporation for low temperature insulation.

Henry E. Hartig was elected a fellow, Institute of Radio Engineers, 1952. He served as member, Committee on Education, American Institute of Electrical Engineers; and member, Committee on Education, American Institute of Radio Engineers.

James S. Holdhusen was recipient of J. C. Stevens Award, American Society of Civil Engineers.

Fulton Holtby was member, National Committee on Foundry Research in Educational Institutions, American Foundryman's Society; member, Board of Directors, Twin City Chapter, Society of Plastic Engineers, and Twin City Chapter, American Foundryman's Society.

Herbert S. Isbin was awarded research contract, Atomic Energy Commission.

Loyal A. Johnson served as member, Governor's Advisory Committee on Conservation, chairman of its Subcommittee on Waters, and member of Subcommittees on Laws and on Land Utilization; member, Research Committee on Precipitation, Section of Hydrology, American Geophysical Union; and member, Planning Committee, Midwest College Conservation Education Conference.

Otto H. Johnson was editor, *The Minnesota Chemist*, 1950-52; and was elected to membership in Sigma Xi.

Robert T. Jones was appointed planning consultant, Reserve Mining Company, for building town of Argo in Northern Minnesota; and member, Minneapolis Planning Commission.

Roy C. Jones was elected president, National Architectural Accrediting Board.

Richard C. Jordan served as vice president, 1951-52, and as member, Council, member, Executive Committee, and chairman, Technical Coordinating Committee, 1951-52, American Society of Refrigerating Engineers; chairman, Technical Advisory Committee on the Heat Pump, American Society of Heating and Ventilating Engineers, 1951-52; and coordinator and investigator, Snow, Ice, and Permafrost Research Establishment contracts, U. S. Army Corps of Engineers.

Thomas L. Joseph was appointed visiting expert to Japan for Industry Division, Economic and Scientific Section, Supreme Command of the Allied Powers, Tokyo, Japan. He served as member, General Council, and member, Executive Committee, Engineering College Research Council, American Society for Engineering Education; and member, Board of Directors, American Institute of Mining and Metallurgical Engineers.

Emory N. Kemler was named secretary, Petroleum Division, American Society of Mechanical Engineers; and participated in civil engineering research projects, U. S. Navy, 1951.

Miles S. Kersten served as consultant, Minnesota Highway Department and Attorney General's Office on soil slides of Bryn Mawr Meadows; consultant, Corps of Engineers, War Department, at Permafrost Conference. He was elected first vice president, Northwest Section, 1952, and member, Review Panel, Publications Committee, Soil Mechanics and Foundations Division, American Society of Civil Engineers.

C. Frederick Koelsch was a member, Board of Editors, *Journal of Organic Chemistry*; director, Fellowship in Organic Chemistry, Carbide and Carbon Chemical Corporation; and director, Fellowship in Organic Chemistry, Monsanto Chemical Company, 1950-51.

Izaak M. Kolthoff served as director, research project on rubber sponsored by the Reconstruction Finance Corporation; member, Chemistry Advisory Committee, Office of Air Research; associate editor, *Journal of American Chemical Society*; vice president, Section on Analytical Chemistry, and chairman, Commission on Physical Chemical Data of Analytical Chemistry, International Union of Chemistry. He lectured before the Nordisk Congress Organization in Helsinki, 1950, and gave a series of lectures in Israel, 1952. He was named honorary member, Finnish Chemical Society, Czechoslovakia Chemical Society, and of Phi Lambda Upsilon; and was awarded grant from United States Public Health Service for research on chemical aspects of cancer problems.

John H. Kuhlmann was guest lecturer on the design of electrical machinery, University of Sao Paulo, Brazil, 1950; and visiting lecturer at University of Brazil, Rio de Janeiro, 1951.

Millard H. LaJoy participated in civil engineering research project on "Study of Radiant Heating for Arctic Buildings," U. S. Navy, 1951; and was chairman, Twin City Chapter, American Society of Refrigerating Engineers, 1950-51.

Sidney C. Larson assisted in preparation and grading of engineers-in-training examinations in electrical engineering, Minnesota Board of Registration for Architects, Engineers and Land Surveyors.

Walter M. Lauer was chairman-elect, Organic Division, American Chemical Society, 1951; and associate editor, *Journal of the American Chemical Society*.

Benjamin J. Lazan served on committees E-9 and D-20, American Society for Testing Materials; and as "conferee" at World Metallurgical Congress, Detroit, 1951. He received the Charles Dudley Medal Award, American Society for Testing Materials, 1950; and the Henry Marion Howe Medal, American Society for Metals, 1951. He was recipient of research grants from Office of Naval Research and U. S. Air Force.

Adolph O. Lee served as member, Board of Directors, secretary-treasurer, and 2nd vice president, 1952, Minnesota Federation of Engineering Societies; and member, Board of Directors, and treasurer, Twin City Lutheran Student Foundation, 1950-52.

Samuel C. Lind (dean emeritus) was recipient of the Priestley Award for distinguished service to chemistry, the highest honor of the American Chemical Society, 1952.

William N. Lipscomb received an award from UNESCO to enable him to attend the Second International Congress of Crystallography, Stockholm, Sweden, 1951. He was awarded research contracts by the Office of Naval Research, and by the Carbide and Carbon Company.

Robert Livingston was in charge of chlorophyll research contract, Office of Naval Research.

Clarence E. Lund served as member, Committee on Home Freezer Standards, American Society of Refrigerating Engineers, 1952; and member, Home Freezer Standards Committee, American Standards Association, 1950-52.

John M. MacKenzie was named chairman, Research Committee, and member, Program Committee, Association of Operative Millers; and member, Program Committee, Twin City Society of Industrial Engineers.

Homer T. Mantis participated in special Snow, Ice and Permafrost Research program sponsored by U. S. Army Corps of Engineers and was in charge of meteorological research contract, Office of Naval Research.

Harlan E. McClure was named chairman, Committee to Study and Rewrite Registration Examination for Architects, State of Minnesota; and chairman, Education Committee, American Institute of Architects.

Gayle W. McElrath was elected president, Minnesota Section, American Society of Quality Control, 1950-52.

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

Forrest E. Miller was elected president, Minnesota Branch, American Society for Engineering Education, 1951.

O. William Muckenhirn was elected secretary-treasurer, Twin Cities Section, Institute of Radio Engineers; and secretary, Minnesota Branch, American Society for Engineering Education.

Norman C. Nagle served as member of Board, St. Paul Rehabilitation Center; member, Program Committee, American Institute of Architects; and consultant, Minneapolis Art Institute.

Nordahl I. Onstad served as assistant to mining companies engaged in the development of taconite processing.

William E. Parham participated in Organic Panel, Office of Naval Research, 1951-52. He was chairman, Divisional Sections, Milwaukee meeting, American Chemical Society, 1952; director, Research Grant, Smith, Kline and French, 1950-52; and director, Ordnance Project, No. DA-11022-ORD, 1951-52.

Edgar L. Piret was recipient of the following awards: Fulbright Research Professorship, 1950-51; Friedel Medalist, University of Paris, 1951; Officier d'Academie, mention Palmes Academique, French Ministry of Education, 1951; and Medaille of the University of Liège, Belgium, 1951. He served as chairman, National Program Committee, U.O. Division, American Institute

of Chemical Engineers, 1951; and member, Publication Committee, *Chemical Engineering Progress*, 1952.

Orrin W. Potter served as member, Special Awards Committee, and member, Executive Committee, Division of Engineering Drawing, American Society for Engineering Education, 1950-51.

George W. Preckshot was awarded research contract, Atomic Energy Commission.

Lloyd H. Reyerson was named member, Committee on Manpower, member, Council Policy Committee, and division councilor, Division of Colloid Chemistry, American Chemical Society, 1952. He received the decoration of Knight, first class, Order of St. Olaf, 1950.

John F. Ripken served as member, Governor's Advisory Committee on Waters, and chairman of its Subcommittee on Water Projects, 1950-52; member, Fluid Dynamics Committee, Engineering Mechanics Division, American Society of Civil Engineers, 1952.

Paul C. Rosenbloom was awarded the Fréchet Prize (Le Priz du Jubilé de M. Fréchet) of the French Mathematical Society (Société Mathématique de France) for the most outstanding paper on applications of the theory of abstract spaces to problems in analysis, 1950.

James J. Ryan was elected vice president, 1950-51, and president, Capitol Chapter, 1951-52, Minnesota Society of Professional Engineers. He served as project engineer and consultant for government research project, 1951-52.

George Schroepfer was member, Advisory Board on Sanitary Engineering Problems, Washington Office of Civilian Defense Administration; chairman and member, Advisory Committee on Training and Certification of Water and Sewage Works Operators, Minnesota Department of Health; and director, Minnesota Section, American Water Works Association.

William G. Shepherd was elected fellow, Institute of Radio Engineers, 1952. He served as member, Committee on Electron Tubes and Solid State Devices, member, Subcommittee on Small High Vacuum Tube, and chairman, Committee on Task Group on Klystrons, Institute of Radio Engineers.

Lee I. Smith served as member, Committee of Award, Elmer Peter Kohler Fellowship, Harvard University; member, Advisory Board of Editors, *Organic Syntheses*, and *Organic Reactions*.

Athelstan F. Spilhaus served as member and deputy chairman, one committee, and member of two panels, Research and Development Board, Office of the Secretary of Defense, 1950; member, one committee, National Academy of Sciences, 1950; member, Subcommittee on Meteorological Problems, National Advisory Committee for Aeronautics, 1950; member, Research and Development Advisory Council, Army Signal Corps, 1952; scientific director, 1951, and consultant, 1952, Armed Forces Special Weapons Project, Department of Defense; member, Arctic Glossary Board of Consultants, Headquarters Air University, U. S. Air Force, 1951-52; member, Subcommittee on Atmospheric and Industrial Hygiene, Division of Medical Sciences, 1950, and Committee on Environmental Protection, 1950, National Research Council; chairman, Standing Committee on Meteorology, Pacific Science Council, 1950; member, Permanent Subcommittee on Station Instruments and Exposure, Commission on Instruments and Methods of Observation, International Meteorological Organization, 1950; member, Committee on the Compendium of Meteorology, 1950-52, and councilor, 1950-52, American Meteorological Society; member, Board of Trustees, 1950, and chairman, Scientific Policy Committee, 1951, Woods Hole Oceanographic Institution; member, Committee on Lakes, Section of Hydrology, American Geophysical Union, 1950-52; member, Manpower Committee, 1950-51, chairman, Committee on Relations with Military Research Agencies, 1950-51, and member, Coordinating Committee on Relations with the Federal Government, 1951-52, American Society for Engineering Education; member, Resident Instruction Section Committee, Association of Land-Grant Colleges and Universities, 1951-52; and member, Committee on Education, National Society of Professional Engineers, 1950-51.

Eugene Stolarik was elected associate fellow, Institute of Aeronautical Sciences, 1951.

Lorenz G. Straub served as member, Federal Beach Erosion Board, 1950-52; panel chairman, Division of Geophysics and Geography, Research and Development Board, U. S. Department of Defense, 1950-52; commissioner and vice chairman, Upper Mississippi and St. Croix River Improvement Commis-

sion, State of Minnesota, 1950-52; member, Hydraulics Division, 1950-51, Advisory Committee, Division of Engineering Mechanics, 1950-52, and Committee on Technical Sessions, 1952, American Society of Civil Engineers; president, International Association for Hydraulic Research, 1950-52; member, The Council on Wave Research, The Engineering Foundation, 1951; member, Division of Engineering and Industrial Research, 1952, and member, Committee on Amphibious Operations, 1950-52, National Research Council. He was elected vice president, Union of International Engineering Organizations, Paris, France, 1950; served as member, Executive Committee, American Geophysical Union, 1950-52; served as consultant and special adviser to various agencies including Navy Department on Hydraulic Research, Corps of Engineers of the Department of the Army, U. S. Waterways Experiment Station Research, The Committee on Tidal Hydraulics, and The Mississippi River Commission on Control of the Lower Mississippi; consultant, U. S. Soil Conservation Service; special consultant for development programs in India, also in El Salvador, 1950-52. He was awarded research grants by the Navy, Army Corps of Engineers, and others.

Hugh L. Turrittin participated in research under contracts with the U. S. Navy and the U. S. Air Force, 1951-52.

Ralph H. Upson served as adviser to the federal government on two highly classified projects; and on the Contest Board, National Aeronautics Association.

Aldert van der Ziel was elected to Eta Kappa Nu, 1951, and to Sigma Xi, 1950.

Walter K. Vivrett served as chairman, Program Committee, Minneapolis Chapter, American Institute of Architects, 1950-51.

Stefan E. Warschawski was awarded research contract, Office of Naval Research, 1951-52. He served on organizing committee for the national meeting, American Mathematical Society and Mathematical Association of America, 1951.

Frank D. Werner was awarded research contract from Wright Air Development Center to exploit the usefulness of the Corona discharge for measurements in air flow.

Gordon R. Whitnah participated in civil engineering research project, U. S. Navy, 1951.

Lee S. Whitson was named member of four-man team of American industrial engineers sent to Norway under auspices of Federation of Norwegian Industries at Oslo, and to Sweden under auspices of Productivity Council, Federation of Swedish Employers, to conduct training program in production engineering and management for technical management personnel.

Joseph A. Wise was technical adviser, State Civil Defense Director; and member, Engineering Service Committee, Minneapolis Civil Defense Committee.

Dana Young served as consultant, Armed Forces special weapons project, Department of Defense; and as secretary, Applied Mechanics Division, American Society of Mechanical Engineers.

Department of Agriculture—Torfine L. Aamodt was named chairman, National Plant Board, 1951-52.

Roland H. Abraham received a Carnegie Foundation Fellowship for study in agricultural extension, Graduate School of Public Administration, Harvard University, 1950; and the Distinguished Service Award of the National County Agricultural Agents Association, 1951.

Stella S. Ahlstrand was member, Program Committee, Homemaker's Section, National Home Economics Association, 1952.

William H. Alderman was named vice chairman, local committee on arrangements for 1951 meetings, American Institute of Biological Sciences; representative of Minnesota Agricultural Experiment Station on Technical Committee which supervises North Central Regional Project NC-7 at Ames, Iowa.

Parker O. Anderson served as state chairman, American Legion Conservation Committee; director, Governor's State Fire Council; honorary fire chief, City of Minneapolis; director, Minnesota Conservation Federation; and president, Minnesota Forestry Association.

Raymond M. Anderson served as consultant with director of research, General Mills, Minneapolis.

Winifred Anderson was awarded two prizes for weaving, Seattle International Textile Exhibitions. She exhibited woven and printed textiles, Detroit Institute of Art, Wichita Art Gallery, and Cranbrook Museum.

Clara Brown Army served as chairman, Evaluation Committee, American Home Economics Association, 1950-52.

Elmer R. Ausemus was appointed coordinator, Hard Red Spring Wheat Region, Bureau of Plant Industry, Soils, and Agricultural Engineering, United States Department of Agriculture, 1950.

Clyde H. Bailey served as member: Experiment Station Committee on Organization and Policy, 1950-51, and Executive Committee, Division of Agriculture, 1951, Association of Land-Grant Colleges and Universities; Committee on Publication Policies for Regional Publications, North Central Experiment Station Directors, 1950-51; Executive Committee, 1950-52, and Farm Safety Committee, 1950-52, Minnesota Safety Council; Nutrition Committee, Sears Foundation, 1951-52; Scientific Advisory Committee, American Institute of Baking, 1950-52; Organization Committee, Agricultural Research Institute, National Research Council, 1952; Institutional Research and Development Associates, Food and Container Institute, 1950-52; and Advisory Committee, Farm Foundation Rural Sociology, 1950-51. He was named vice chairman, Committee of Nine under U. S. Research and Marketing Act of 1946, 1950; vice chairman, State Soil Conservation Committee, 1950-52; chairman, Section of Experiment Station Work, Association of Land-Grant Colleges and Universities, 1951-52; chairman, Committee on Patents, North Central Regional Directors, 1950-52; and administrative adviser, Regional Technical Committee on Nutritional Status of Dietary Needs of Population Groups, North Central Experiment Station Directors, 1950-52. He was awarded the honorary doctor of science degree by North Dakota Agricultural College, June 4, 1951.

James R. Beer received research grant from National Society of Sigma Xi, 1950-51.

Bruce C. Beresford served as secretary, Ninth District Horticultural Society; and secretary, Crookston Garden Club, 1950-51.

Alice Biester served as president, Minnesota Dietetic Association, 1950; member, Technical Committee, Regional Nutrition Project, "The nutritional status and dietary needs of population groups in the North Central Region"; member, Borden Award Committee, American Home Economics Association, 1950-52; and for the American Dietetic Association, 1950-52, she served as follows: chairman, Professional Education Section; member, Coordinating Cabinet; chairman, Internship Board; member, Mobilization Committee; member, House of Delegates.

Willard L. Boyd served as president, Research Workers in Animal Diseases of North America, 1950-51; president, American Veterinary Medical Association, 1951-52; and president, Minnesota State Livestock Sanitary Board, 1951-52.

Paul D. Boyer was treasurer, 1950-51, and president-elect, 1952, Minnesota Section, American Chemical Society.

Wilfred G. Brierley was a member, Advisory Committee, American Psychological Society, 1951-52.

James I. Brown was elected executive secretary, National Society for the Study of Communication, 1951.

Charles R. Burnham was elected chairman, Committee to Aid in Organizing a Project for Maize Genetics Research in the North Central Region.

Paul M. Burson was chairman, Budget and Finance Committee, American Society of Agronomy; and member, Committee on Reorganization and Coordination, American Society of Agronomy and the Soil Science Society of America.

Clyde M. Christensen served as mycological consultant to Kurth Malting Company, Milwaukee, Wisconsin, 1951-52.

Jonas J. Christensen served as consultant to the U. S. Army Chemical Corps. He was member, Flax Development Committee, Flax Institute of America; engaged in work for the United States Government in a search for disease-resistant cereal crops in South America and Mexico, 1951; and was invited by Rockefeller Foundation to spend one month in Mexico as adviser on plant disease problems, 1951.

John O. Christianson served as member, Executive Committee, Governor's Advisory Committee on Recreation, 1950-52; member, Executive Committee, Minnesota Committee for the Hoover Report, 1950-52; member, Promotion and Public Relations Committee, St. Paul YMCA, 1950-52; member, Board of Directors, Folk Arts Foundation, Inc., 1950-52; member, State Advisory Committee, National Foundation for Infantile Paralysis, 1950-52; member, Public Relations Committee, Minnesota Library Association, 1950-52; member, Committee on Farm Fire Protection, National Fire Protection Association, 1950-52; member, Minnesota Committee on Mental Health Resources, 1950-52; president, American Swedish Institute, Minneapolis, 1950-52; chairman, 1950-51, and member, 1951-52, Committee on Short Courses, Association of Land-Grant Colleges and Universities; chairman, Christian Rural Overseas Program for Minnesota; and member, National Midcentury Committee for Children and Youth, 1952. He was recipient of the Andrew P. Biddle Lecture Award, 1951.

Clarence H. Christopherson was elected secretary-treasurer, Minnesota Section, American Society of Agricultural Engineers, 1951-52.

Clarence L. Cole collaborated in developing swine production program with the First National Bank of Grand Rapids and 4-H Department, 1952; and served as chairman, Agricultural and Probation Officer Committee, Civic and Commerce Association, Grand Rapids, 1952.

Willes B. Combs was elected secretary, Minnesota Dairy Industry Committee. He was member, Examining Committee for Civil Service, Minnesota State Department of Agriculture; member, Committee Formulating Grade A Milk Regulations, Dairy and Food Section, Minnesota Department of Agriculture.

Cora E. Cooke was recipient of a "certificate of recognition" presented by the Minnesota Baby Chick Cooperative Association, 1950; and of a Distinguished Service Award for her contribution to the development of Minnesota's poultry industry, U. S. Department of Agriculture, 1950.

Samuel T. Coulter was recipient of the Borden Award in Dairy Manufacturing, 1951; he was member, Board of Research and Development Associates, Food and Container Institute; and member, Subcommittee on Dairy Fats and Oils, Committee on Foods, Advisory Board of Quartermaster Research and Development, National Research Council.

Rex W. Cox served as a member, Educational Advisory Committee, Chicago Board of Trade, 1950-51.

Ralph F. Crim was editor and manager, *The Minnesota Seed Grower*; secretary, Minnesota Crop Improvement Association, 1950-52; and member, representing the Minnesota Crop Improvement Association, Board of Directors, International Crop Improvement Association.

Herbert G. Croom served as supervisor, Ground Observer Corps for Morris, Minnesota Department of Civil Defense; and president, Morris Kiwanis Club.

Joseph O. Culbertson was appointed project leader, Seed Flax Investigations, U. S. Department of Agriculture, 1950.

Troy M. Currence served as member, Executive Committee, and chairman, Vegetable Crops Section, American Society of Horticultural Science.

William H. Dankers served as chief, Food, Agriculture and Forestry, U. S. High Commission Government, Bavaria, Germany, July 1, 1950 to March 29, 1951; member, Board of Directors, Minnesota United Nations Group, 1950-52; and special consultant, Batelle Memorial Institute, Columbus, Ohio, on problems in the agriculture of Germany.

Donald P. Duncan was member, State Tree Farm Committee, Keep Minnesota Green; chairman, Southern Minnesota Chapter, Society of American Forestry; member, Rural Extension Fund Committee, North Central Area Council of YMCA; chairman, Committee of Management, Student Branch, and member of the Board, St. Paul YMCA.

Raymond S. Dunham was elected honorary Premier Seed Grower, 1951. He served as director, North Central Weed Control Conference, 1950-52; was appointed to Editorial Board, *Weeds*, 1952; and elected chairman, NC-10 Regional Technical Committee, Agricultural Research Administration, 1952.

Allen W. Edson was chairman, County Defense Board, 1950-52; and chairman, Morris Civil Defense.

Carl J. Eide was official delegate to national meeting of Sigma Xi, 1951; secretary-treasurer, Minnesota Chapter of Sigma Xi; and president, Gamma Sigma Delta, 1951-52.

Laddie J. Elling was elected vice chairman, Central Alfalfa Improvement Conference, 1951.

Gertrude A. Esteros was elected president, 1951-52, and chairman, National Nominating Committee, 1951-52, Pi Lambda Theta.

Theodore H. Fenske served as administrative adviser, North Central Regional Technical Committee on Oat Production; province counselor, Alpha Gamma Rho, 1950-52; vice president, Kiwanis International, 1950-51; and member, National Committee on Civic Organization, 1950-52, and vice president, St. Paul Area Council, 1951-52, Boy Scouts of America.

Evan F. Ferrin served as member, Board of Directors, St. Paul Union Stock Yards Company; member, Advisory Committee, National Barrow Show, Austin, Minnesota; and member, Planning Committee, Minnesota State Spring Barrow Show, Albert Lea.

James B. Fitch served as member, National Feed Survey Committee, American Feed Manufacturers' Association; and member, Coordinating Committee, North Central Region Farm Structures.

Kathleen S. Flom served as member, National Extension Subcommittee on Older Youth Work; and as member, Advisory Committee, Western Regional Conference, Rural Youth of U.S.A.

Roxana R. Ford was appointed member, State Advisory Council, Future Homemakers of America; treasurer, Minnesota Council on Adult Education; chairman, National Evaluation Committee, Omicron Nu; and secretary-treasurer, National Association of Teacher Educators in Home Economics, American Vocational Association. She was elected to membership in Phi Kappa Phi.

David W. French served as member, Regional Committee on Oak Wilt, 1952.

William F. Geddes served as general collaborator, Northern Regional Research Laboratory, Peoria, Illinois. For the National Research Council he served as: chairman, Subcommittee on Cereal and Baked Products of Committee on Foods, Quartermaster Research and Development Board; member, Committee on Foods; member, Committee on Cereals, Food and Nutrition Board; and member, Subcommittee on Food Technology, Food Protection Committee, Food and Nutrition Board. He was named editor, *Cereal Chemistry*, and editor, *Transactions*, American Association of Cereal Chemists. He was elected chairman, Committee on Monographs, and member, Committee on Abstracts, American Association of Cereal Chemists; and member, Committee on Education, Committee on Publications, and Committee on Membership, Institute of Food Technologists.

Ethel R. Gorham served as member, Planning Committee, College Textiles and Clothing Teachers in the Central Region, 1950-51.

Thor W. Gullickson was the American Dairy Science Association recipient of plaque and \$1,000 award "for outstanding achievement in research in dairy cattle nutrition," American Feed Manufacturers' Association, 1951. He was named member, Award Committee, American Feed Manufacturers' Association, 1952.

Otis F. Hall served as member, Committee for the Preparation of a Curriculum Guidebook, Minnesota Department of Education; and adviser to the Minnesota Department of Taxation on preparation of material for manual on timber-land assessment.

Henry L. Hansen was named chairman, Silviculture Committee, Upper Mississippi Valley Section, Society of American Foresters; project leader, Woody Plant Section, North Central Weed Control Conference; project leader on aerial spraying of brush, working with Aircraft Sprayers Association, U. S. Forest Service, State Forest Service, and the pulp and paper industries; and chairman, Advisory Committee, Quetico-Superior Wilderness Research Center.

Lester E. Hanson served on Hog Panel Committee, Bureau of Animal Industry, U. S. Department of Agriculture, 1952; and was member, Committee on the American Feed Manufacturers' Award, American Society of Animal Production, 1951-52.

Helen Hart was editor-in-chief of *Phytopathology* 1950-52; and member, Executive Council, American Phytopathological Society, 1950-52.

Alfred L. Harvey served as member, Executive Committee, NC-I-Beef Cattle Breeding Research cooperative project of United States Department of Agriculture, 1950-51; chairman, Type Committee, Red Poll Cattle Club of America, 1951-52; first vice president, National Association of Stallion Registration Boards, 1950-52; adviser, Lambda Chapter, Alpha Gamma Rho; adviser, Agricultural Club Commission, 1950-52; and member, All Agriculture Day Policy Commission, 1951-52.

Herbert K. Hayes served on Committee to Evaluate Cross-breeding Experiments, Bureau of Dairy Husbandry, Agricultural Research Administration, 1951. He was presented with Recognition Award for Outstanding Service by Minneapolis Chamber of Commerce, 1952.

Marshall C. Hervey was member, Technical Committee, Subcommittee on Body Measurements, and chairman, Executive Committee, North Central Region Dairy Cattle Breeding Project NC-2; and member, Dairy Cattle Breeding Committee, American Dairy Science Association.

Inez M. Hobart was a member, State School Lunch Menu Planning Committee, State Nutrition Council, for the Minnesota Department of Education.

Alexander C. Hodson was named secretary, Entomological Society of America, 1951; and vice president, American Association of Economic Entomologists, 1951.

Arthur E. Hutchins served as member, Consumers Interests Committee, Minneapolis; chairman, Great Plains region, American Society for Horticultural Science, 1950-51; and member, Executive Board, American Society for Horticultural Science, 1950-51.

Kathleen M. Jeary was named president-elect, Minnesota Home Economics Association, 1951-52.

Robert Jenness was elected to Phi Lambda Upsilon, 1951; and served as consultant to Committee on Milk Production, Distribution, and Quality, National Research Council, 1950-51.

Oscar B. Jesness served as member, Foreign Agricultural Trade Advisory Committee, U. S. Department of Agriculture, 1950-52; member, Committee on Foreign Trade, U. S. Chamber of Commerce, 1951-52; chairman, American Members of Council, International Conference of Agricultural Economists, 1950-52; chairman, Conference Committee of Economists which prepared publication "Turning the Searchlight on Farm Policy," sponsored and published by the Farm Foundation, Chicago, 1950-52; consultant, President's Water Resources Policy Commission, 1951; member, Board of Directors, Minnesota Institute of Governmental Research; 1950-52; and member, Advisory Council, Agricultural Commission, American Bankers' Association, 1950-52.

Elmer M. Johnson was appointed chairman, Civil Service Police Commission, 1950-52; chairman, Constitution and By-Laws Committee, 1951-52, and member, Youth Council, Inc., 1951-52, Fridley Village; lecturer, American Christian Palestine Committee, 1951-52; and associate editor, *Harmony* Magazine, 1951-52.

Evelyn M. Jones was elected to membership, Iota Sigma Pi and Sigma Delta Epsilon.

Frank H. Kaufert served as member of Council, and chairman, Forest Management Committee (Minnesota Section), Society of American Foresters; state chairman, Keep Minnesota Green Committee; member, National Resources Committee, Minneapolis Chamber of Commerce; secretary, Minnesota Forestry Research Council; member, Committees P-4, P-6, U-10 and Fundamental Research, American Wood Preservers Association; member, Program Committee, Forest Products Research Society; and member, Governor's Conservation Advisory Committee.

Arne K. Kemp served as secretary, Upper Mississippi Valley Section, Forest Products Research Society; and member, Arrangements Committee, Lumberman's Short Course.

Howard C. H. Kernkamp was elected second vice president, Minnesota State Veterinary Medical Society, 1952.

Milton F. Kernkamp was elected secretary-treasurer, 1950-51, and vice president, 1951-52, North Central Division, American Phytopathological Society; served as Minnesota representative, North Central Regional Committee

on Forage Crop Improvement, 1951-52; and as collaborator on Soy Bean Improvement, U. S. Department of Agriculture, 1951-52.

Orville M. Kiser was elected secretary, Red River Valley Livestock Association.

Thomas H. King served as Minnesota representative, North Central Regional Committee on Stone Fruit Viruses.

Ralph L. Kitchell served as secretary, American Association of Veterinary Anatomists, 1951-52.

Fred A. Krantz was named chairman, Inter-Regional Technical Committee, Project IR-1, National Potato Introduction and Preservation Project.

Glenroy J. Kunau received an award for superior service (one of 17 awarded in the United States) from the Secretary of Agriculture, 1952.

Jean W. Lambert was elected chairman, North Central Region Barley Improvement Council, 1952; member, General Committee, and one of four state judges, Minnesota Malting Barley Contest.

Raymond H. Landon was elected treasurer, Minnesota Archaeological Society, 1951-52.

Jane M. Leichsenring served as member, Dietetics Division, Governor's Advisory Committee on Mental Health, 1950-52; regional director, Iota Sigma Pi, 1950-51; official Minnesota delegate to national convention, American Dietetic Association, 1950-52; member, Information Committee, Minnesota State Nutrition Council, 1950-52; member, Committee on Certification of Nutrition Specialists, 1950-51, and member, Program Planning Committee, 1951-52, American Dietetic Association; chairman, Nominating Committee, Iota Sigma Pi, 1950-51; member, Nutrition Subcommittee, Governor's Advisory Committee on Health of Youth and Children, 1951-52; and member, Committee on Research, American Home Economics Association, 1950-51. She is president-elect, Minnesota Dietetic Association, 1951-52.

Ramer D. Leighton was elected chairman, Extension Section, and member, General Program Committee for the meetings at University of California, American Dairy Science Association, 1952.

Theodore S. Long was elected president, Library Board, Morris, Minnesota.

Herschel H. Lysaker served as member, Advisory Council, Agassiz District, Boy Scouts of America.

Harold Macy participated in a survey of agricultural research institutions of Latin America under the sponsorship of the Technical Cooperation Administration of the U. S. Department of State, 1952. He served as Colonel, Medical Service Corps, U. S. Army (Active Reserve) and was assigned to 5,007th Organized Research and Development Group (Tng); alternate member, Committee of Nine under the provisions of the Research and Marketing Act of 1946, Public Law; member, Executive Committee, National Conference on Interstate Milk Shipments; chairman, Committee of Three on Regional Research, Directors of the Agricultural Experiment Stations of the North Central Region; administrative adviser, Technical Committees on Animal Diseases, North Central Region and Interregional Committee on Newcastle disease; member, Agricultural Mobilization Committee for Minnesota; member, Minnesota Agricultural Resources Conservation Committee; and member, Minnesota Dairy Industry Committee.

Phillip W. Manson served as chairman, Subcommittee No. II-Land Management, Minnesota Advisory Committee on Waters, 1950-52; and member, Wetland Management Committee, Soil Conservation Society of America, 1950-52.

William H. Marshall served as member, Governor's Advisory Committee on Conservation, 1950-52. He conducted a survey to "Review Food and Cover Plantings," sponsored by Wildlife Management Institute, 1951-52.

George W. Mather served as chairman, Humane Act Award Committee, American Veterinary Medical Association, 1951-52.

Thomas M. McCall served as president, Board of Managers, Red River Valley Winter Shows; president, Red River Valley Livestock Association; president, Red River Valley Development Association; and member, Interstate (North Dakota and Minnesota) Potato Research Committee. He was elected honorary farmer, District I, Minnesota Future Farmers of America.

Gerald R. McKay served as member, Board of Directors, St. Paul Citizens School Committee.

Paul R. McMiller was chairman, Section V, Soil Genesis, Morphology and Cartography, Soil Society of America; and member, Regional Soil Survey Subcommittee of North Central States.

Clarence E. Mickel served as president, International Great Plains Entomological Conference, 1950-52; member, North Central Regional Technical Committee on the Toxicity of Insecticides, Fungicides, and Herbicides, 1950-52; member, North Central Regional Technical Committee on Entomology, 1950-52; and corresponding secretary, Minnesota Gladiolus Society.

Paul E. Miller was awarded the honorary degree of doctor of economic science by National University of Ireland, July 10, 1951. He served as chief, Marshall Plan in Ireland, 1950-51; and was appointed by President Truman as member, National Commission to study and report on migratory agricultural labor, July 1950. He served as member, Farm Foundation National Committee on Public Policy in the Field of Agriculture; member, National Farm Labor Advisory Committee, U. S. Department of Labor; member, Minnesota State Soil Conservation Commission; member, Minnesota State Production Marketing Association Committee; and member, Board of Directors, Minneapolis Federal Reserve Bank.

Ralph E. Miller served as president, Twin City Iowa State College Alumni Association, 1951; and member, Board of Directors, St. Paul YWCA, 1951.

William E. Morris was named secretary, Minnesota Cooperative Wool Growers' Association; and manager, Junior Livestock Show, South St. Paul.

Doris E. Nelson was appointed member, state committee to arrange a workshop of commercial instructors of Minnesota, Gregg Publishing Company of Chicago, 1952.

Josephine B. Nelson served as member, Civil Defense Committee, 1951-52, and member, Public Relations Committee, 1951-52, Minnesota Nutrition Council; and member, Radio and TV Committee, American Association of Agricultural College Editors, 1951-52.

Ralph G. Nichols was elected president, National Society for the Study of Communication, 1950. He was named assistant editor, *Quarterly Journal of Speech*, 1951 and served as consultant, training film to improve listening comprehension, U. S. Air Force, 1951.

Isabel Noble served as member, Minnesota State Garden Committee.

Truman R. Nodland was elected secretary-treasurer, Minnesota Farm Managers' Association, 1951-52.

Joseph C. Olson, Jr., served as technical adviser, Milk Advisory Committee, to the commissioner of agriculture, State of Minnesota; member, Civil Service Examination Committees for state and municipal positions; member, Twin City Quality Control Committee; secretary-treasurer, Minnesota Milk Sanitarians Association; and associate editor, *Journal of Milk and Food Technology*. He was commanding officer, 5,007 Organized Reserve Research and Development Unit, U. S. Army Reserves.

Charles K. Otis was named chairman, Farm Structures Division, American Society of Agricultural Engineers, 1951-52.

Harold C. Pederson received the Distinguished Service Award, U. S. Department of Agriculture, 1950.

William E. Petersen was decorated with the Knight Cross of the Order of Dannebrog by King Christian IX of Denmark. He served as president, Minnesota Chapter, Sigma Xi. He received research grant from Atomic Energy Commission for study of acetate metabolism in the mammary gland; and research grant for study of egg transplant in the bovine from Louis W. and Maud Hill Family Foundation.

Ethel L. Phelps served on Committee of Judges for American Dyestuff Reporter Award, and on Bibliography Committee, American Association of Textile Chemists and Colorists; on Technical Advisory Committee, *Journal of Home Economics*; as chairman, Research Committee, Textiles and Clothing Section, and on Steering Committee, Research Department, American Home Economics Association.

Robert R. Pinches was named director, Conference on Rural Youth of the United States of America.

Emmett L. Pinnell served as chairman, Executive Committee, North Central Corn Conference, 1951-52.

Benjamin S. Pomeroy was elected secretary-treasurer, Minnesota State Veterinary Medical Society, 1950-52. He received the \$500 award and plaque from the National Turkey Federation for outstanding research work in turkey diseases, 1951; and the Alumni Service Award of Iowa State College, 1952.

George A. Pond was elected secretary-treasurer, 1950-51, and president, 1951-52, Minnesota Farm Managers' Association; and was member, Research Committee, North Central Regional Farm Management.

Glenn I. Prickett served on State Farm Safety Committee, Minnesota Safety Council, and as state chairman, National Farm Safety Week, 1950-51.

Sue Theis Rehfeld was elected member, Sigma Delta Epsilon.

A. Glenn Richards served as member, Committee on Insect Physiology, National Research Council. He was awarded research grants from Office of the Surgeon General, Department of the Army, for continued research on the structure and permeability of insect cuticle, 1951-52; and for study of the properties of intercellular bodies in insect tissues, 1952.

Ernest H. Rinke was appointed technical adviser on Hybrid Corn Production for Portuguese Government in Angola, West Africa, 1952.

Ella J. Rose served as member, State Commission on Vocational and Higher Education, 1950-52; regional representative, Home Economics Education Research Committee, American Vocational Association, 1951-52; member, State Advisory Committee, Future Homemakers of America, 1950-51; member, Executive Committee, Minnesota Vocational Association, 1950-51; member, State Planning Committee for Home Economics, Minnesota Department of Education, 1951-52; member, State Citizens Committee on Education, 1950-52; and chairman, home economics education research group in Central Region, 1951-52.

Clayton O. Rost served as member, North Central Regional Soil Research Committee; and member, Missouri Basin Research Committee.

August B. Salmela was named camping director, Boy Scouts for Applegate District, 1952.

Jay H. Sautter was named member, 1951, and was recipient of special recognition award, 1952, American College of Veterinary Pathologists.

Henry Schmitz served as chairman, Section of Resident Instruction, Division of Agriculture, Association of Land-Grant Colleges and Universities, 1950; and was elected President of the University of Washington, beginning July 1, 1952.

Miriam G. Scholl served as member, Executive Board, 1951-52, chairman, Food Administration Committee, 1951-52, and member, Career Workshop Committee, 1951-52, Minnesota Dietetics Association; chairman, Advisory Committee to Institution Management Section, 1951-52, member, Panel on Menu-making, Chef's Refresher Course, 1952, and member, Education Committee, 1950-51, Minnesota Restaurant Association; co-chairman, Special Guests Registration Committee, National Convention, American Dietetic Association, 1952; member, School Lunch Committee, Minnesota Nutrition Council; and chairman, Committee for Apprentice Training, American School Food Service Association, 1950-51.

Thorvald Schantz-Hansen served as member, Board of Education, Cloquet, Minnesota, 1950-52; chairman, Carlton County School Reorganization Committee, 1950-52; co-chairman, Conservation Committee, Arrowhead Association, 1950-52; member, Conservation Committee, Duluth Chamber of Commerce, 1950-52; member, Executive Council of Boy Scouts of America, North Star Council Area, 1950-52.

Arthur J. Schwantes was named member, and chairman, 1951-52, College Conference Board, Advisory to United Cooperatives Laboratory.

Dorothy Simmons was named president-elect, Minnesota Home Economics Association.

Hubert J. Sloan served as president, Minnesota Poultry Improvement Board; member, Poultry Advisory Committee, Production and Marketing Administration; 2nd vice president, 1950, and 1st vice president, 1951, Poultry Science Association. He received special research grants from Northwest Feed Manufacturers' Association, Western Condensing Company, Sulphite Pulp Manufacturers, and Merck & Co., Inc.

Lloyd L. Smith, Jr., was member, Governor's Advisory Committee on Conservation, 1950-52; chairman, Water Standards Committee, Ohio River Valley Water Sanitation Commission, 1952; editor, American Fisheries Society, 1950-52; and collaborator, U. S. Fish and Wildlife Service, 1950-52.

Ralph E. Smith was named secretary, Stevens County Fair Board.

Leon C. Snyder served as member, Governor's Plant Minnesota Committee; member, State Nutrition Council; chairman, Governor's Garden Committee; chairman, Tree and Shrub Zoning Committee, and member, Fruit Zoning Committee, Minnesota Horticulture Society.

Stephen H. Spurr was chairman, Division of Forest Management, chairman, Aerial Photography Committee, Foresters' *Manual*, and member, Committee on History, Society of American Foresters.

Elvin C. Stakman was awarded the Gamma Sigma Delta medal for distinguished service to agriculture, 1951, and was named honorary member, Association of Applied Biologists (England). He served as member, Committee on Associates, American Institute for Biological Sciences, 1951-52; member, Executive Committee, National Science Board, 1951-52; member, Subcommittee on Atmospheric and Industrial Research, Committee on Sanitary Engineering and Environment, 1951-52, member, Governing Board, 1951-52, and member, Policy Board, 1951-52, National Research Council; member, Committee on Plant and Crop Ecology, National Academy of Sciences-National Research Council, 1952. He was named honorary member, Karachi (Pakistan) Botanical Society, 1951; and was elected to membership in the Norwegian Academy of Science and Letters. He served as delegate to the 6th General Conference, UNESCO, Paris, 1951.

Louise A. Stedman was elected to Psi Chi. She served as member, Council, Minnesota Home Economics Association; member, Committee to Study Instruction in Home Economics, Resident Instruction Section, Division of Home Economics, Association of Land-Grant Colleges and Universities; vice chairman, Department of Colleges and Universities, American Home Economics Association.

Helen K. Stephens was elected to membership in Omicron Nu.

Harold B. Swanson served as assistant coordinator, 1950, and coordinator, 1951, Press, Radio, and TV Committees, National 4-H Club Congress. For the American Association of Agricultural College Editors he served as: secretary-treasurer, 1951-52, editor, *ACE* (official magazine), 1951-52, member, Professional Improvement Committee, 1951-52, and member, Bulletin Committee, 1950-51.

Otto W. Swenson was elected honorary premier seed grower, 1952.

Mark J. Thompson was chairman, Agricultural Council, Duluth Chamber of Commerce; chairman, Agricultural Section, St. Louis County Club; member, Advisory Committee, College of St. Scholastica; farm management editor, *Stock and Dairy Farmer*; farm editor, KDAL Radio Station; and agricultural columnist, "Down Arrowhead Furrows" of the *Cooperative Builder*.

Matthias A. Thorfinnson was elected chairman, Third Annual Midwest College Conservation Education Conference, 1952; and executive secretary, State Soil Conservation Committee.

Orrin C. Turnquist was a member, Governor's State Garden Committee; and member, Minnesota Nutrition Council.

Marjorie H. Thurston was named member, Editorial Board, *Journal of Communication*, January, 1951.

Warren C. Waite was a member, Board of Directors, National Bureau of Economic Research, 1950-51.

Ralph W. Wayne served as member, Advisory Committee, Program on Milk Market Regulations, State Department of Agriculture; member, Dairy Month Committee, Minnesota Dairy Industry Committee.

Richard E. Widmer was editor, Minnesota State Florists' *Bulletin*.

Arthur N. Wilcox was elected president, 1950-51, and editor, *Proceedings*, 1952, Minnesota Academy of Science.

James D. Winter served as department editor (Orchard and Garden), *The Farmer*, St. Paul, Minnesota, 1950-52; consulting editor (Packaging-Wrapping), *Locker Management*, St. Louis, Missouri, 1951-52; editor, Minnesota Fruit Growers column, *Minnesota Horticulturist*, St. Paul, Minnesota, 1950-52; secre-

tary-treasurer, Minnesota Fruit Growers' Association, 1950-52; member, Advisory Committee, Promotion of Minnesota Apple Industry, 1951-52; member, NCM-2 Regional Fruit and Vegetable Technical Committee, 1950-52; leader, Regional Research Project NCM-2 Minn. 1, Marketing of Fresh Sweet Corn, 1950-52.

Laurence M. Winters served as member, National Committee of Six, to appraise the research program in breeding, Bureau of Dairy Industry, 1951; chairman, committee within the Regional Swine Breeding Laboratory, to appraise research performed, 1952; director, Eli Lilly Fellowship for research in animal breeding, 1951-52; and director, research grant, Land O'Lakes Creameries, for research in artificial insemination. He was one of three professional animal breeders in the United States requested to submit a long-time program in swine breeding for the Bureau of Animal Industry, 1952.

Raymond S. Wolf received a public interest award for "exceptional service to safety on the farm," National Safety Council. He was named chairman, Radio Section, Minnesota Safety Council.

Henry G. Zavoral was elected secretary, 1950-51, and chairman, 1951-52, Extension Section, American Society of Animal Production; and secretary-treasurer, Minnesota Swine Producers' Association, 1951-52.

College of Medical Sciences—George N. Aagaard served as secretary-treasurer, Minnesota Medical Foundation; editor, Bulletin of the University of Minnesota Hospitals and Minnesota Medical Foundation, 1951; secretary, 1950, vice president and program chairman, 1951, Minneapolis Society of Internal Medicine; member, Board of Ethics, and member, Board of Trustees, Hennepin County Medical Society; president and secretary, Minnesota Society for the Study of Diseases of the Heart and Circulation; and president, Minnesota Pathological Society.

Forrest H. Adams was elected to Sigma Xi, 1950.

Ray M. Amberg was named the outstanding Catholic of the year, 1951. He was elected trustee, American Hospital Association.

Gaylord W. Anderson served as president, American Public Health Association, 1952; president, Association of Schools of Public Health, 1951-52; president, American Epidemiological Society, 1951; adviser, American Delegation to Fourth World Health Assembly, Geneva, 1951; vice chairman, Expert Panel on Professional Education, World Health Organization; consultant, Institute of Inter-American Affairs, 1950-52; consultant to Surgeon General, Department of the Army, 1950-52; consultant to Surgeon General, U. S. Public Health Service, 1951-52 as follows: consultant, Communicable Disease Center, member, Cancer Control Committee, and member, Editorial Board, *Public Health Reports*; chairman, Committee on Control of Other Respiratory Diseases, National Tuberculosis Association, 1950-52; member, Executive Committee, Minnesota Public Health Conference; member, Executive Committee, and chairman, Committee on Expenditures, St. Paul Health Council; member, Executive Committee, Health and Medical Care Section, Minneapolis Council of Social Agencies; member, Board of Directors, Hennepin County Tuberculosis Association; and chairman, Medical Advisory Committee, Hennepin County Chapter, National Foundation for Infantile Paralysis.

Wallace D. Armstrong was member, Advisory Committee, Committee on Research and Development, Department of Defense; consultant, Dental Study Section, U. S. Public Health Service; and chairman, Conference on Metabolic Interrelations, Josiah Macy, Jr., Foundation, 1952. He received the following research grants: U. S. Public Health Service, 1950-52; and Atomic Energy Commission, 1950-52.

Abe B. Baker served as special consultant, National Institute of Neurological Diseases and Blindness; and chairman, Education Committee and Committee on Special Courses, American Academy of Neurology. He was named honorary member, Uruguay Society of Neurology and Neurosurgery; and chairman, Medical Advisory Board, State Branch, National Multiple Sclerosis Society. He received a renewal of grant by National Foundation for Infantile Paralysis.

Cyrus P. Barnum, Jr., was chairman, session on cytochemistry at annual meeting of American Society of Biological Chemists, New York, 1952; and

received research grants from the American Cancer Society, 1950-51 and 1951-52.

Elexious T. Bell was the recipient of the award for outstanding service in cancer control, Minnesota Division, American Cancer Society.

Ellis S. Benson was consultant, Clinical Laboratory Procedures in third area, Veterans Administration, 1952.

Raymond N. Bieter was elected to fellowship in the New York Academy of Sciences, 1950.

John J. Bittner received the second annual Minnesota award, American Cancer Society, 1950; and the Comfort Crookshank award for cancer research, London, England, 1951.

Kathleen Black was chairman, Nursing Subcommittee, Governor's Advisory Council on Mental Health, 1951-52; chairman, Civil Service Advisory Committee, 1950-52, and vice chairman, Administrative Section, 1951-52, Minnesota Nurses Association; member, Subcommittee on Aide Licensure, Legislative Committee, American Nurses Association, 1952; and member, Advisory Committee on Psychiatric Nursing, National League of Nursing Education, 1952.

Herbert M. Bosch was appointed member, Expert Advisory Panel on Environmental Sanitation, World Health Organization, 1952; member, Minnesota State Board of Health, 1952; consultant on Sanitary Engineering to the Surgeon General, Department of the Army, 1952; member, Committee on Professional Education, 1952, and member, Nominating Committee for Elective Counselors, 1952, American Public Health Association.

Spencer F. Brown was recipient of a grant from the Louis W. and Maud Hill Family Foundation, 1950-52, for research with particular reference to cerebral palsy. He served as member, Medical Advisory Board, Minneapolis Cerebral Palsy Nursery School, 1950-52; associate editor, *Journal of Speech and Hearing Disorders*, 1950-52; and chairman, Committee on Ethical Practice, American Speech and Hearing Association, 1951-52.

Josef Brozek served as secretary pro-tem, Committee on Nutritional Anthropometry, 1951-52, and member, Subcommittee on Undernutrition and Starvation, 1951, National Research Council; consultant, Quartermaster Climatic Research Laboratory, Lawrence, Massachusetts, 1951-52; consultant, Conference on the All-Purpose Survival Ration Project, Quartermaster Food and Container Institute, Chicago, 1951; and was associate editor, *Nutrition Reviews*, 1950-52.

Berry Campbell served as president, Minnesota Chapter, 1950-51, and member, National Council, 1950-51, Society for Experimental Biology and Medicine; and was honorary vice president, Symposium on Space Flight, San Antonio, 1951. He was recipient of a grant (with Andrew T. Rasmussen) for research on the sclerotic nerve, and of a grant for an Air Force research contract.

Gilbert S. Campbell was awarded a clinical research fellowship, American Cancer Society.

Carleton B. Chapman, was recipient of grants from Bean Foundation, Minneapolis, for study of coronary arteriosclerosis; and two grants from Minnesota Heart Association, for study of essential hypertension, 1950. He served as counselor, American Federation for Clinical Research.

R. S. Chow received a medal for prize winning exhibit on brain tumors, Minnesota State Medical Association, 1951.

Myrtle H. Coe was re-elected president, Minnesota Nurses' Association, 1950-52; elected member, American Council on Rheumatic Fever, 1950-52; appointed to Executive Committee, Committee on Clinics, American Heart Association, 1950-52; adviser, Committee on Scholarships, Group Health Association, 1951-52; and to special conference to determine policies and content of Federal Civil Defense Manual for Nurses, 1951.

Saul L. Cohen received research grants from the U. S. Public Health Service, 1950-52; and American Cancer Society, 1950-52.

Charles D. Creevy was member, Editorial Board, *Journal of Urology*.

Frederick S. Cross was named Damon Runyon Fellow, 1951.

James R. Dawson, Jr., was named to Hennepin County Neonatal Mortality Study Committee.

Katharine J. Densford served as member, Special Medical Advisory Group, and member, Nursing Advisory Committee, Veterans Administration, 1950-52; consultant, Army Nurse Corps, 1950-52; and was elected 2nd vice president, International Council of Nurses, 1950-52.

Harold S. Diehl served as member, Advisory Committee on Health Resources, Office of Defense Mobilization and National Security Resources Board; member, Advisory Committee on the Classification of Physicians, Dentists, and Veterinarians, National Selective Service System; member, Joint Committee on Medical Education in the National Emergency, and member, Council on National Emergency Medical Service, American Medical Association; chairman, Committee on Hospitals and Medical Education, Minnesota State Medical Association.

Thelma Dodds served as member, and president, 1950-51, Minnesota State Board of Nurse Examiners; member, Board of Directors, 1950-52, and member, Legislative Committee, 1950-52, Minnesota Nurses' Association; chairman, Governor's Advisory Committee on Nursing, 1950-52; member, Advisory Committee, Minnesota Hospital Survey and Construction Program, 1950-52; president (national), Sigma Theta Tau, 1950-52; and chairman, Program Committee, Administrative Section, American Nurses' Association, 1950-52.

Hal Downey (emeritus) served as American editor, newly revived international journal *Folia Haematologica*.

Richard V. Ebert was member, Subcommittee on Shock, National Research Council.

Emma C. Einerson served as member, Advisory Committee to District Program Chairman, Minnesota Nurses' Association, 1951-52; member, Program Committee, Mississippi Valley Tuberculosis Conference, 1952; vice chairman, Minnesota Tuberculosis Nursing Council, 1952; and member, Membership Committee, American Red Cross, 1950.

Gerald T. Evans was member, State Advisory Committee on Improvement of Medical Laboratories in Rural Areas, 1951-52.

Abraham Falk was member, Minnesota Sanatorium Consultation Committee.

Davitt A. Felder was surgical representative, W. K. Kellogg Foundation Institute on Nursing Services Administration, University of Chicago.

Virginia R. Field was named fellow, American Public Health Association, 1952. She served as member of Board, State Organization for Public Health Nursing, 1951-52; member, Collegiate Council on Public Health Nursing Education, National Organization of Public Health Nurses, 1951-52; member, School Nurse Certification Committee, School Nurse Section, Minnesota Nurses' Association, 1951.

Margaret Filson was member, Postgraduate Board of Review, National Nursing Accrediting Service, 1950-52; member, Technical Committee on Studies of Nursing Functions, American Nurses' Association, 1950-52; member, Medical Advisory Committee, Hennepin County Chapter, National Foundation for Infantile Paralysis, 1952; and member, Vocational Hospital Advisory Board, 1951.

Esther F. Freier was editor, *Minnesota Medical Technologist*, official publication, Minnesota Society of Medical Technologists, 1950-52.

Lyle A. French was named vice president, and member, Board of Trustees, Neurosurgical Society of America; and member, Harvey Cushing Society. He was awarded a United States Public Health Service grant, and was elected to Sigma Xi, 1950. He received (with others) a medal for prizewinning exhibit on brain tumors, Minnesota State Medical Association, 1951.

Ernst Gellhorn was co-editor of *Acta Neurovegetativa*; member, study group on the function of the adrenal cortex, which meets annually under the auspices of the Josiah Macy, Jr., Foundation, New York; and consultant, Division of Grants-in-Aid, U. S. Public Health Service.

David Glick served as vice president, 1950-51, and national president, 1951-52, The Histochemical Society; member, Editorial Board, *The Journal of Histochemistry and Cytochemistry*; and member of Panel on Cytochemistry, Section on Biophysics, Committee on Growth, National Research Council. He received research grants from the U. S. Public Health Service, 1950-51 and 1951-52; and from Minnesota Heart Association, 1950-51.

Robert A. Good was examiner for the National Board, 1951. He was recipient of the Markle Scholarship in Medical Science, 1950-52, and of research grants as follows: Minnesota Heart Association, 1950-52; American Heart Association, 1951-52; U. S. Public Health Service, 1951-52; Helen Hay Whitney Foundation, 1950-52.

Helen C. Goodale was member, Board of Directors, National Association for Practical Nurse Education, 1950-52; alternate member, Postgraduate Board of Review, National Nursing Accrediting Service, 1951-52; and chairman, State Committee for the Improvement of Nursing Service, Minnesota Nurses' Association, 1951-52.

Margaret F. Grainger was vice president, Minnesota League of Nursing Education, 1951-52; and was elected to membership in Sigma Theta Tau.

Ruth E. Grout served as consultant in Health Education, World Health Organization, 1952; member, Joint Committee on Health Problems in Education, American Medical Association and National Education Association; member, Commission for preparation of yearbook, *Health in Schools*, American Association of School Administrators; special consultant on Health Education Program Review in Puerto Rico, U. S. Public Health Service, July 1950; vice chairman, 1951-52, and secretary, 1950-51, Public Health Education Section, and member, Subcommittee on Professional Education of Health Educators, American Public Health Association; associate editor, *Journal of the American Association for Health, Physical Education, and Recreation*; representative of the American Public Health Association on the Council of National Organization (affiliated with the Adult Education Association); member, Board of Trustees, Northwestern Hospital, Minneapolis; and consultant to the Board, Community Health Service, Minneapolis.

Wendell H. Hall served as member, Laboratory Committee, Conferences on Chemotherapy of Tuberculosis, Veterans Administration, Army, and Navy.

James A. Hamilton served as consultant to the Commissioner on Mental Hospitals, and chairman, Examining Committee for Assistant Superintendents of Mental Hospitals, State of Minnesota; chairman, Commission on University Education in Hospital Administration (supported by grant from W. K. Kellogg Foundation); chairman, Study Commission, and chairman, Research Committee, Association of University Programs in Hospital Administration; member, Committee on Award of Merit, and member, Committee on Pensions, American Hospital Association; chairman, Advisory Committee, Minnesota Hospital Superintendents Registration Law; trustee, and chairman, Visiting Committee, Tilton School, New Hampshire; trustee, National Health and Welfare Retirement Association; member, Advisory Committee on Hospitals, W. K. Kellogg Foundation; member, Social Security Committee, Minnesota Efficiency in Government Commission; chairman, Administrative Practices Committee, and chairman, Professional Education Committee, Minnesota Hospital Association; and first vice president, Inter-American Hospital Association. He was recipient of a grant from W. K. Kellogg Foundation for research in hospital administration at the University of Minnesota.

Robert N. Hammerstrom was recipient of U. S. Public Health Service Fellowship, National Heart Institute.

Helen C. Hanson served as member, Nursing Advisory Committee, American Cancer Society, 1951-52; member, Advisory Committee, Swedish Hospital School of Nursing, Minneapolis, 1950-52; and chairman, Committee on Study of Nursing Functions, Minnesota Nurses' Association, 1951-52.

Ruth Harrington was appointed to the State Board of Examiners of Nurses, 1950. She served as member, Board of Directors, National League of Nursing Education, 1950-51; and represented the National League of Nursing Education at Conference of Organization Members, American Council on Education, Washington D.C., 1952.

M. Isabel Harris was elected to membership in Psi Chi, 1951.

J. Francis Hartmann was recipient of special research grants from U. S. Public Health Service, 1951 and 1952.

Donald W. Hastings served as chairman, Aero-Medical Committee, Scientific Advisory Board, U. S. Air Force; chairman, Governor's Advisory Council on Mental Health; member, Board of Directors, Minnesota Mental Hygiene Society; consultant in Psychiatry, Surgeon General's Office, U. S. Air Force;

and editor in psychiatry, *Journal-Lancet*. In the summer of 1950 he made an inspection trip to Europe for the U. S. Air Force.

Starke R. Hathaway served as member, Governor's Special Committee on Prison Conditions in Minnesota, 1951; adviser, Citizens' Advisory Committee on Penal Reform, 1952; chairman, Nominating Committee, Division of Anthropology and Psychology, National Research Council, 1951-52; consultant in clinical psychology, Fort Meade Veterans Administration Hospital, 1952.

Ann Hauser served as member, Board of Directors, National Organization for Public Health Nursing.

Lyle J. Hay was member, Board of Directors, Minnesota Division, American Cancer Society.

Robert Hebbel was elected president, Minnesota Pathological Society.

Ruth Heinemann was elected secretary, Minnesota Society of Medical Technologists, 1950-52.

Claude R. Hitchcock was named senior cancer research fellow, U. S. Public Health Service; clinical cancer fellow, American Cancer Society; and received research grant from U. S. Public Health Service, 1950-51-52.

Fred W. Hoffbauer, was associate member, Commission on Liver Disease, Armed Forces Epidemiological Board, Office of the Surgeon General; consultant, Surgeon General; editor, "Liver Injury," *Transactions of Ninth Conference*, 1950, and editor, "Liver Injury," *Transactions of Tenth Conference*, 1951, Josiah Macy, Jr., Foundation, New York City.

Ruth F. Hovde served as president, Minnesota Society of Medical Technologists, 1951-52; and member, State Advisory Committee on Improvement of Medical Laboratories in Rural Areas, 1950-52.

Robert B. Howard, served as member, Editorial Board, *Journal-Lancet*, Minneapolis, 1952; member, Medical Advisory Committee, Community Health Service, Minneapolis, 1952; medical director, Zone 5, Minneapolis Civil Defense; and editor, *Bulletin of the Minnesota Medical Foundation*, 1952.

Reynold A. Jensen served as chairman, Committee on Child Psychiatry, 1950-52, and member, Committee on Technical Aspects of Psychiatry, 1951-52, American Psychiatric Association; member, Planning Committee, and member, Preparatory Commission on "The Role of Child Psychiatry in Psychiatric Training," Second Conference on Psychiatric Education, 1952, sponsored by American Psychiatric Association, the Association of American Medical Colleges, and the U. S. Public Health Service; member, Health Committee, Governor's Advisory Council on Children and Youth, 1951-52; psychiatric consultant to the Minnesota State Board of Health, 1950-52; member, State Advisory Committee on Education for the Mentally Retarded, 1951-52; member, Advisory Board, Associated Friends of the Mentally Retarded, Minneapolis, 1950-52; member, Health Committee, Minneapolis Board of Education, 1950-52; and member, Organization Committee, new scientific society to be designated "The Academy of Child Psychiatry."

Ruth V. Johnston served as member, Measurement and Guidance Committee, National League of Nursing Education, 1951-52; member, Board of Directors, Minnesota League of Nursing Education, 1950-52; member, Advisory Board, Y.W.C.A., 1950-52; and was named certified psychologist, Minnesota Board of Examiners of Psychologists, March, 1952.

Florence J. Julian served as chairman, Administrative Section, Minnesota Nurses' Association, 1950-52.

William D. Kelly was national cancer trainee, U. S. Public Health Service.

Ancel Keys served as chairman, Joint FAO/WHO Expert Committee on Nutrition, Rome, Italy, 1951, and chairman, Committee on Calories, Food and Agricultural Organization, United Nations; received U. S. Army-Navy Award of Appreciation; was member, Special Advisory Committee, War Claims Commission; scientific adviser, Office of the Commissioner of Mental Health, State of Minnesota; member, Board of Directors, Minnesota Heart Association; and member, Committee on Research and Standards, American Public Health Association. For the National Research Council he served as member, Food and Nutrition Board, chairman, Committee on Nutritional Anthropometry, member, Committee on Dietary Allowances, member, Committee on Therapeutic Nutrition, chairman, Subcommittee on Undernutrition and Starvation, and member, Committee on the Diagnosis and Therapy of Nutritional Deficiency.

He was invited lecturer at the Medical School, Naples, Italy, and before the Societa Italiana di Biologia Sperimentale, April, 1951; and delivered the Macarthur Memorial Postgraduate Lecture for the Edinburgh Medical faculty, Edinburgh, Scotland, January, 1952. Dr. Keys served as associate editor, *Metabolism*; and was recipient of a Fulbright Fellowship, 1951-52, for research study at the Laboratory of Human Nutrition, Churchill Hospital, Oxford, England.

Arthur Kirschbaum received the annual medal of the American Cancer Society, 1951.

Ralph T. Knight was elected president, American Society of Anesthesiologists, 1951.

Arnold J. Kremen received a research grant for work with Dr. Henry Bloch, 1952.

Cecelia R. Lediger served as chairman, Subcommittee on Psychiatric Nursing, National League of Nursing Education, 1950-52, and member, Planning Committee, State Institutions Psychiatric Aide Program, 1951.

F. John Lewis received a research grant from the Minnesota Heart Association, 1952. He was elected to Sigma Xi, 1951.

Herman C. Lichstein served on Editorial Board, Methods of Biochemical Analysis, and as consultant, Biology Division, Oak Ridge National Laboratory.

C. Walton Lillehei received research grants from the U. S. Public Health Service and the Minnesota Heart Association; was recipient of the Theobald Smith Award in Medical Sciences from the American Association for the Advancement of Science, 1951; and was elected to Sigma Xi.

Helen B. Linehan was named vice chairman, Nursing Disaster Preparedness and Relief Committee, Minnesota Red Cross, 1950-52.

Francis W. Lynch was named chairman, Section on Dermatology and Syphilology, American Medical Association; member and director, American Board of Dermatology and Syphilology; member, Board of Directors and vice president, Minnesota Medical Foundation.

Edward E. Mason served as trainee, National Cancer Institute, and received a National Cancer Institute research grant.

Charles D. May served as member of Council, Society for Pediatric Research. He received the Mead Johnson Company annual award, 1950.

James S. McCartney was elected president, Minnesota Society for Clinical Pathologists; and president, Minnesota Board of Basic Science Examiners.

Irvine McQuarrie served as associate editor, *Post Graduate Medicine*; associate editor, *Journal of the American Academy of General Practice*; associate editor, *Metabolism*; and was elected president, American Pediatric Society.

Henry E. Michelson was elected president, American Dermatological Association.

George E. Moore received the Samuel D. Gross Prize in Surgery, 1950; the prize for brain tumor exhibit, Minnesota State Medical Association, 1951; and honorable mention for brain tumor exhibit, American Medical Association, 1951. He was elected to Sigma Xi, and was recipient of Chilean Iodine Educational Bureau, Inc., award, 1951.

J. Arthur Myers, received the Dearholt Medal, Mississippi Valley Conference on Tuberculosis, 1950. He gave the first *Journal-Lancet* lecture at Hebrew University, Jerusalem, Israel, September, 1950; and was special delegate to the First International Congress on Diseases of the Chest, Rome, Italy, September, 1950. He served as member, Advisory Board, Tuberculosis Control Unit, Minnesota State Division of Public Institutions; chairman, Committee on Tuberculosis, and member, Executive Committee on Public Health Education, Minnesota State Medical Association; member, Fiftieth Anniversary Program Planning Committee, National Tuberculosis Association, 1951; chairman, Finance Committee, and member, Executive Committee, Minnesota Tuberculosis and Health Association; editor, *Diseases of the Chest*, 1950; general chairman, Council on Research, American College of Chest Physicians, 1951; member, Medical Advisory Committee, Common Cold Foundation, 1951; and member, National Medical Advisory Board, City of Hope Hospital, Duarte, California, 1952.

Theodore A. Olson served as member, Standard Methods Committee, American Public Health Association, 1950-52; member, Sanitation Study Sec-

tion, Research Grants Division, National Institute of Health, 1951-52; member, Aquatic Life Advisory Committee, Ohio River Valley Sanitation Commission, 1952; member, Membership Committee, Minnesota Public Health Conference, 1950-52; consultant on Sewage Lagoon Research, Minnesota Department of Health, 1950-52; and member, Committee on Vector Control, Engineering Section, American Public Health Association. He was recipient of a grant for study of blue-green algae toxins, 1950-52, and of grant for studies on cockroach as a carrier, 1950-51, National Institute of Health Research.

Leonard F. Peltier was named fellow, National Foundation for Infantile Paralysis, 1951; Markle Scholar in Medicine, 1952; and was elected to Sigma Xi, 1951.

William T. Peyton was named chairman, Program Committee, Harvey Cushing Society. He received (with others) a medal for prizewinning exhibit on brain tumors, Minnesota State Medical Association, 1951.

George O. Pierce was named chairman, Engineering Section, American Public Health Association, 1951; and secretary, Minnesota Society of Professional Engineers, 1951-52.

Andrew T. Rasmussen was recipient of research grants from U. S. Public Health Service for training in neuroanatomy and for research on sclerotic nerve (with Dr. Berry Campbell).

Leo G. Rigler served as member of a Medical Mission to Japan under auspices of U. S. Army and Unitarian Service Committee, 1950; special consultant to Armed Forces Institute of Pathology, 1950-52; special consultant to U. S. Public Health Service, 1950-52; member, State of Minnesota Advisory Commission to Department of Public Welfare, 1951-52; member, Special Medical Education Mission to Near East, Unitarian Service Committee, Inc., and World Health Organization, 1951; chairman, Publication Committee, Radiology, 1951-52; member, Advisory Medical Board, Hadassah Medical Organization, 1951-52. He was named 1st vice president, American Friends of Hebrew University, 1950-52.

Yoshio Sako was trainee, National Heart Institute, 1951; and was elected to Sigma Xi, 1951.

Sidney S. Scherling was elected fellow, American Academy of Pediatrics, 1951.

Burtrum C. Schiele was named member, Governor's Advisory Council on Mental Health; member, Governor's Commission on Aging; member, Mayor's Committee on Alcoholism, Minneapolis, 1950; member, Mental Health Advisory Council, Minnesota Department of Health; vice president and president, Minnesota Society of Neurology and Psychiatry; and chairman, Program Committee, Central Neuropsychiatric Association, 1951.

William Schofield served as member, Committee on Psychology, Governor's Advisory Committee on Mental Health, 1951; research consultant, Project on Clinical Assessment of Air Force Cadets, U. S. Air Force, 1951; member, Executive Council, Minnesota Psychological Association, 1951-52; and member, Governor's Advisory Committee on Penal Reform, 1952.

Ernst Simonson served as editor, *Journal of Applied Physiology*, 1951-52. He received a special research grant from Minnesota Heart Association, 1951.

Theodore S. Smith was elected fellow, American Academy of Pediatrics, 1951.

Ragnar T. Soderlind was awarded a prize for his painting "Los Homos-Acapulco," second annual physician's art exhibit, Minnesota State Medical Association, 1951.

Philip H. Soucheray served as member, Board of Directors, St. Paul Junior Chamber of Commerce, 1950-51; member, Board of Directors, St. Paul Civic Opera Association, 1950-51; and member, Medical Advisory Board, St. Paul Red Cross Blood Bank, 1950-51.

Mitchell W. Spellman was awarded the Commonwealth Fund Fellowship, 1951-52.

Wesley W. Spink served as chairman, Committee on Public Health Aspects of Brucellosis, and member, Agricultural Board, National Research Council; president, Third Inter-American Congress on Brucellosis, Washington, D.C., November, 1950; member, Panel of Expert Consultants on Brucellosis, World Health Organization and Food and Agricultural Organization of the United Nations; expert consultant, World Health Organization, with consultations

carried out in Great Britain, France, Italy, Yugoslavia, and Switzerland, 1951; president, Central Society for Clinical Research, 1950; member, Board of Editors, *Journal of Clinical Investigation*, *Journal of Laboratory and Clinical Medicine*, *Anti-Biotics and Chemotherapy*; member, Board of Governors, American College of Physicians; chairman, Scientific Exhibit for Internal Medicine, and member, Committee on Research, American Medical Association. He was recipient of research grants from Lederle, Smith, Kline and French, and World Health Organization.

William W. Stead was elected counselor, American Federation for Clinical Research (Midwest Section), 1952.

James W. Stephan served as member, Council on Association Services, American Hospital Association; and member, Board of Trustees, Minnesota Hospital Association.

Jerome T. Syverton was a member, Editorial Board, *Journal of Bacteriology*; member, Editorial Board, *Bacteriological Reviews*; consultant, Viral and Rickettsial Study Section, Surgeon General, U. S. Public Health Service; and member, Board of Directors, Minnesota Heart Association.

Henry L. Taylor was consultant, Conference on the All-Purpose Survival Ration Project, Quartermaster Food and Container Institute, Chicago, 1951; member, Board of Directors, Minnesota Heart Association, 1951-52; and member, Committee for Conference on Problems of Medical Care, Rockefeller Foundation, 1951.

Margaret S. Taylor served as special consultant on chronic diseases and tuberculosis, and consultant, Community Services Committee, Mental Health Division, U. S. Public Health Service; chairman, Education Committee, and member, Executive Committee and advisory director, National Organization of Public Health Nurses; member, Public Health Committee, American Heart Association; president, 3rd District, Minnesota Nurses' Association, 1950-52; director, study on graduate education for public health nurses, National Organization of Public Health Nurses, 1951; member, Public Health Nursing Board of Review, National Nursing Accrediting Service; and member, Governing Council, American Public Health Association, 1950-51. She was awarded a fellowship by the World Health Organization, 1951.

Lewis Thomas served as member, Research Committee, American Heart Association, 1950-52; associate member, Commission on Acute Respiratory Disease, Armed Forces Epidemiological Board, 1951-52; member New York Academy of Science; Alpha Omega Alpha; and member, Scientific Council, and Research Committee, American Heart Association. He received research grants as follows: U. S. Public Health Service (2), Armed Forces Epidemiological Board, and Minnesota Heart Association.

Fae Y. Tichy was named diplomate, American Board of Neurology and Psychiatry, June, 1951.

Robert W. Toon was awarded a U. S. Public Health Service Fellowship (senior postdoctorate).

Franklin H. Top was member, Committee on Professional Education, and member, Governing Council, American Public Health Association.

Alan E. Treloar served as member, Research Advisory Committee, Community Chest and Council of Hennepin County, Inc., 1950-52.

William B. Tucker was appointed, Minnesota State Sanatorium Commissioner, of both the Minnesota Trudeau Medical Society and the State of Minnesota Department of Health; member, Board of Directors, and member, Executive Committee, Hennepin County Tuberculosis Association, member, Editorial Board, *The American Review of Tuberculosis*, 1950-52.

Frederick H. Van Bergen was alternate Minnesota delegate, American Society of Anesthesiologists; and chairman, Committee on Medical Schools and Post-Graduate Education, Minnesota Society of Anesthesiologists. He was awarded research grants by Squibb, Eli Lilly, and U. S. Public Health Service.

Richard L. Varco received special research grants as follows: Minnesota Division, American Heart Association; U. S. Public Health Service; and Greater Minnesota Fund.

Maurice B. Visscher was appointed representative for the United States, Council for the Coordination of International Congresses of the Medical

Sciences; chairman, Committee on UNESCO, National Research Council; and special consultant, National Science Foundation. He served as member, Editorial Board, *Physiological Reviews* and *Annual Review of Physiology*, American Physiological Society; representative of the American Physiological Society on the National Research Council; vice president, American Heart Association; president, Minnesota Chapter, Society of Sigma Xi; chairman, Minnesota Chapter, Society for Experimental Biology and Medicine; president, Board of Trustees, *Biological Abstracts*; member, Board of Directors, Unitarian Service Committee; member, Committee on Motion Pictures in Teaching, American Medical Association; and secretary, Permanent Committee, International Union of Physiological Sciences. He was elected foreign member, Argentine Society of Biology.

Owen H. Wangenstein served as regent, American College of Surgeons; co-editor, *Surgery*, chairman, Gastric Cancer Committee, and chairman, Surgical Study Section, U. S. Public Health Service; chairman, Program Committee, Surgical Forum; president, Alpha Omega Alpha; member, Advisory Membership Committee, and 1st vice president, American Surgical Association; president, Minnesota Medical Foundation; honorary fellow, American Proctologic Society; member, Board of Directors, and chairman, Fellowship Committee, American Cancer Society; and member, Committee on Growth, National Research Council. The May 1951 issue of *Minnesota Medicine* was dedicated to Dr. Wangenstein.

Cecil J. Watson served as director, Commission on Liver Disease, Armed Forces Epidemiological Board; recorder and member of Council, Association of American Physicians; member, Committee on Medicine, National Research Council; member, Josiah Macy, Jr., Foundation, Liver Injury Conference; member, Editorial Boards, *Journal of Laboratory and Clinical Medicine*, and *Blood, The Journal of Hematology*; editor, "Outlines of Internal Medicine." He was awarded a contract with Division of Preventive Medicine, U. S. Army, under sponsorship of Commission on Liver Disease, Armed Forces Epidemiological Board (with Dr. F. W. Hoffbauer); and contract with Atomic Energy Commission for research on porphyrin metabolism. He served as member, Council of National Institute of Arthritis and Metabolic Diseases, U. S. Public Health Service; member, Intercouncil Committee, National Institute of Health; member, Panel on Research, President's Commission on Health Needs of the Nation.

Dennis W. Watson was associate member, Commission on Immunization, Army Epidemiological Board; and councilor, North Central Branch, Society of American Bacteriologists.

Lemen J. Wells was correspondent, Committee on Developmental Biology, National Research Council. He received a U. S. Public Health Service grant for research on endocrine glands of the fetus.

S. Marx White (emeritus) received the annual distinguished service award, Community Chest and Council of Hennepin County, 1951.

W. Lane Williams received research grants from U. S. Public Health Service for studies of liver injury; and from National Heart Institute for studies of cardiac injury.

H. Bernard Zimmermann was awarded a clinical research fellowship, American Cancer Society.

College of Education—Arthur J. Adkins was member, State Citizens Committee and Minneapolis Citizens Committee on Education; and acting vice president, American Society for Curriculum Development.

Clifford P. Archer served as chief, Field Party, U. S. Representative, The Institute of Inter-American Affairs, Department of State, in Bolivia. While in Bolivia he was director, Servicio Cooperativo Inter Americano De Educacion. He was member, State Commission on Teacher Education and Professional Standards, 1952; and member, Committee on Publications, Minnesota Education Association, 1952.

Gertrude M. Baker served as chairman, Committee on Trends as They Affect Physical Education for Women, National Association for Physical Education of College Women; president, Hygiene and Physical Education Section, Wellesley Alumnae Association, 1950-52; member, Lay Board of Nine, Min-

neapolis Board of Park Commissioners, 1950; and member, Minnesota Advisory Board, National Section on Women's Athletics.

Arthur H. Ballet served as chairman, Secondary School Curriculum Committee, American Educational Theatre Association, 1951-52; member, Advisory Council, North Central Theatre Association, 1951-52; and member, Advisory Committee, Minnesota Speech Association, 1950-52.

Emma M. Birkmaier was re-elected national secretary, Association of Teachers of German, 1952. She served as vice president, National Federation of Modern Language Associations, 1952; chairman, Modern Foreign Language Section, Minnesota Education Association, 1952; consultant, Elizabeth Revyuk Foundation Language Project; assistant editor, *Modern Language Journal*; editor, *Minnesota German News*; member, Executive and Advisory Committee, and director for Minnesota, of the Teacher Training Study, National Federation of Modern Language Associations. She prepared examinations in German and Spanish and supervised French examinations for the Educational Test Bureau, Educational Publishers, Inc., 1951; and national German examinations for the American Association of Teachers of German, 1950-51. She was a member, Association for Supervision and Curriculum Development, National Education Association; and recorder on "Methods and Materials" in workshops of National Civil Defense Administration and Minnesota Department of Education, 1951-52; member, National Committee on Articulation of Foreign Language Courses, National Federation of Modern Language Teachers Associations; and member, Committee for the Selection of Foreign Language Texts, U. S. Armed Forces Institute.

Charles W. Boardman was elected president, 1950-51, and secretary, 1951-52, North Central Association of Colleges and Secondary Schools. He served on Board of Directors, Minnesota Association of Secondary School Principals, 1950-52; and was elected Honorary Life Member, North Central Association of Colleges and Secondary Schools, 1951.

Clarence H. Boeck was member, 1950-51, and chairman, 1952, Committee on Secondary School Science Teaching, National Association for Research in Science Teaching; general chairman, Annual Minnesota Spring Conference of Science Teachers, 1951-52; and member, State Science Curriculum Revision Committee, 1950-52.

Nelson L. Bossing served with Institute for Educational Leadership, C.I.E., GHQ, SCAP, Japan, August, 1951 to April, 1952.

Leo J. Brueckner served as chairman, Minneapolis Town Meeting Association; editor of Elementary Education, *Journal of Educational Research*; consultant on improving mathematics program, State Education Department, New York; consultant on preparation of high school mathematics curriculum, Minnesota State Department of Education.

William D. Carlson was elected vice president, 1950-51, president, 1951-52, Eta (Minnesota) Chapter, Phi Delta Kappa; member, National Council, Phi Delta Kappa, 1951-52; and treasurer, Student Personnel Section, Minnesota Education Association, 1950-52. He served as member, Examining Board for Psychologists, State Civil Service, 1950; consultant, Minnesota Area Guidance Conferences, 1951; guidance consultant for six Minnesota high schools; member, State Committee on Certification of High School Counselors, 1952; member, Planning Committee, and consultant, State Workshop on Guidance and Counseling, 1950-52.

Naomi C. Chase served as treasurer, Epsilon Chapter, Pi Lambda Theta; member, Speech Committee, National Council of Teachers of English; chairman, Student Teaching Section, Minnesota Education Association Conference.

Walter W. Cook was named chairman, Committee on Educational Psychology, National Society of College Teachers of Education, 1950-52; director, Minnesota Society for the Study of Education, 1952; and special consultant, Austin, Minnesota School Survey of Instructors.

Lillian S. Davies was awarded the Tozer Foundation Grant.

Otto E. Domian served as consultant, State Department of Education in preparation of *Manual of Instructions for Uniform Financial Accounting for Minnesota School Districts*, 1951-52; member, Advisory Committee on reorganization of the State Department of Education, State Civil Service Commission and State Department of Education, 1951-52.

Willis E. Dugan served as member, Minnesota State Board of Examiners of Psychologists, 1951-52; member, Executive Board, Minnesota Psychological Association, 1950-52; trustee, National Vocational Guidance Association, 1952; member, Executive Committee, Council on Cooperation in Teacher Education, American Council on Education, 1951-52; member, Executive Council, American Personnel and Guidance Association, 1952; president, 1950-52, and member, Executive Committee, 1950-52, Student Personnel Association for Teacher Education; state chairman, National Foundation for Infantile Paralysis, March of Dimes, 1950-52; editor, "Guidance in Minnesota" section of *Minnesota Journal of Education*; and member, Citizens Committee on Public Education (Minneapolis).

Florence D. Dunning served as a member, State Curriculum Committee in Social Studies, 1951-52.

Lyle M. Eakins was member, Committee on Leadership Training, Minneapolis Area Council, Boy Scouts of America.

Ruth E. Eckert was awarded a University of Buffalo citation for "outstanding ability and distinguished services in education," December, 1951. She served as consultant in general education, Division of Higher Education, U. S. Office of Education.

William H. Edson served as program vice president, Eta Chapter, Phi Delta Kappa, 1951-52.

Marcia Edwards was member, Executive Committee, Minneapolis Citizens Committee on Education.

Ellsworth B. Erickson was named vice president, Minnesota Alumni chapter, Delta Phi Delta.

Gerald B. Fitzgerald was awarded the Doctor of Recreation degree by Indiana University, February 10, 1952. He was elected president, College Recreation Association, 1950-51; and president, American Recreation Society, 1951-52.

Ned A. Flanders served as member, Governor's Advisory Committee, Youth Conservation Council, 1952; consultant, Naval Research Laboratories, Washington, D.C., 1951; and consultant, Air University, Maxwell Air Force Base, Alabama, U. S. Air Force, 1952.

Clifton A. Gayne, Jr., served as liaison representative for art education, Coordinating Committee on Collegiate Problems of Teacher Education, American Association of Colleges for Teacher Education, 1951; member, Accreditation Committee, National Art Education Association, 1951-52; chairman, Editorial Board and editor, *Western Arts Journal*, and chairman, 1952, College Teachers of Art Education (Section on Teacher Preparation), Western Arts Association.

Paul R. Grim served as member, Teacher Interviewing Committee, Minnesota State Civil Service, 1951; vice chairman, 1950-51, member of Executive Committee, 1951-52, and chairman, Committee on Student Teaching, 1951-52, Minnesota State Advisory Committee on Teacher Education; member, Delegate Assembly 1950, member, 1950-51 and chairman, 1951-52, State Committee of Future Teachers of America; member, Executive Board, Minneapolis Citizens Committee for Public Education 1950-52; member, Executive Committee, Marcy Elementary School Parent-Teachers Association, 1950-51; chairman, Publications Committee, *Educational Leadership*, Association for Supervision and Curriculum Development, National Education Association, 1950-51; member, Board of Directors, Minnesota Society for the Study of Education, 1950-51; national vice president, Association for Student Teaching, 1950-52; and member, Board of Management, University YMCA, 1950-52.

Carl V. Goossen served as secretary-treasurer, Minnesota Society for the Study of Education, and member, Subcommittee on Elementary Education, State Department of Education.

W. Reid Hastie served as member, Coordinating Committee on Collegiate Problems of Teacher Education, American Association of Colleges for Teacher Education, 1950-52; member, Accreditation Committee, 1950-52, and chairman, Workshop on Problems of Art Teacher Education, 1951, National Art Education Association; member of Council, 1952, and secretary, College Teachers of Art, 1952, Western Arts Association.

Helen Hauptfuehrer served as member, National Softball Examining Committee, 1950-52; secretary, State College Women's Physical Education group, 1951-52; and member, 1950-52, and chairman, 1952, Minnesota Officials Rating Board.

Ramon P. Heimerl was elected president, Minnesota Business Teachers Association, 1952; president, Phi Chapter of Delta Pi Epsilon, 1951-52; chairman, Convention Planning Committee, Basic Business Section, National Business Teachers Association; and member, Governor's Youth Commission, 1952.

Cyril J. Hoyt served as co-editor, research page, *Minnesota Journal of Education*, 1951-52; consultant, research project in cancer education, Minnesota State Board of Health, 1951; and consultant, Research Planning Conference, Air Force Human Resources Research Center.

Donovan A. Johnson was named chairman, Minnesota State Mathematics Curriculum Committee; member, Board of Directors, National Council of Teachers of Mathematics; member, Executive Board, Minnesota Council of Teachers of Mathematics; editor, *Minnesota Mathematics Newsletter*; and co-editor, "Aids to Teaching" section of the *Mathematics Teacher*.

Palmer O. Johnson was member, Board and Council, American Statistical Association; vice president, and chairman, Section I (Education), American Association for Advancement of Science; member, Program Committee, National Society, Institute of Mathematical Statistics; member, Regional Advisory Board, Biometric Society, International Society of Mathematical and Statistical Biology; member, State Advisory Committee on Teacher Education; member, Committee for Organization and Planning of Midwest Statistics Conference, 1952; consultant, American Council of Dental Education; consultant, Educational Policies Commission, National Education Association; member, Committee for preparation of the *Review of Educational Research*, American Educational Research Association, 1951; editorial collaborator, *Journal of American Statistical Association*; and statistical editor, *Journal of Experimental Education*.

Stanley B. Kegler was elected to Phi Delta Kappa, 1951.

Robert J. Keller served as research consultant, U. S. Air Force, 1950-52; member, Board of Directors, Minnesota Society for the Study of Education, 1950-52; and was elected vice president, Minnesota Association of Colleges, 1952.

Theodore E. Kellogg served as member, State Mathematics Curriculum Committee, 1950-52; and president, Mathematics Section, Minnesota Education Association, 1951-52.

Harry W. Kitts was elected member-at-large, Research Committee, 1951-52, member, Convention General Arrangements Committee, 1951, and chairman, Convention Tours Committee, 1951, American Vocational Association; member of staff, workshop for planning the addition of agricultural education to the curriculum of Japanese schools; member, Youth Projects Committee, Minnesota State Horticultural Society; member, Youth Conservation Education Committee, Minneapolis Public Schools; member, Committee for National Judging Contests, and faculty chairman, State Judging and Identification Contests and Short Course, Future Farmers of America; and member, Mayor's Traffic Safety Committee, St. Paul, Minnesota.

George W. Knox served as member, State Curriculum Committee on Social Studies, 1951-52; and business manager, *Bulletin* of the Minnesota Council for Social Studies, 1951-52.

Mary B. Lampe was elected member, Pi Lambda Theta, 1950-51.

Nick Lovdijeff served as member, State Curriculum Committee for Secondary Mathematics, 1950-52; chairman, Publicity Committee, Summer Conference, National Council of Teachers of Mathematics, 1951; and chairman, Program Committee, Spring Conference, Minnesota Council of Teachers of Mathematics, 1952.

Ruth A. Marfell served on Program Committee, State Workshop for School Librarians, 1951.

Warren G. Meyer was recipient of a U. S. Department of State grant under German education exchange program to serve as consultant in Vocational Education, Hesse, Germany. He served as member, Advisory Council for Distributive Education for North Central Region, U. S. Office of Education; teacher-trainer for Distributive Education, Vocational Division, Minnesota

Department of Education; president, Metropolitan Area Distributive Education Club; vice president, Delta Pi Epsilon; and secretary, National Association of State Supervisors of Distributive Education.

William J. Micheels served as member, Advisory Panel on Personnel and Training, Office of Naval Research, 1950-52; member, Industrial Arts Policy and Planning Committee, 1951-52, and Research and Publication Committee, 1950-52, American Vocational Association. He was elected vice president, 1950, and trustee, 1952, National Association of Industrial Teacher Trainers; and served as consultant, Human Resources Research Office, Department of the Army, 1952; and consultant, Industrial Arts and Vocational Education, St. Paul Public School Survey, 1950-52.

Gordon M. A. Mork was member, Committee on Education of Secondary Teachers, Minnesota State Advisory Committee on Teacher Education, State Department of Education, 1951-52; consultant, Curriculum Coordinating Committee, Minneapolis Public Schools; consultant, Science Curriculum Committee, Duluth Public Schools; was elected member, Board of Education, Hennepin County Independent School District, #133; and president, Eta Chapter, Phi Delta Kappa.

Mervin G. Neale served as chairman, 1952, three Survey Committees, North Central Association of Colleges and Secondary Schools, involving the University of Denver, Velerbo College, La Crosse, Wisconsin, and New Mexico Highlands University, Las Vegas; and as consultant on development programs, Southern State College, Magnolia, Arkansas, and Concordia Teachers College, Seward, Nebraska, 1952.

Howard F. Nelson served as consultant, Industrial Arts and Vocational Education, St. Paul Public School Survey, 1950-51.

Neville P. Pearson was appointed member, University Film Project, Teheran, Iran, and Athens, Greece, 1951; and lecturer, Audio-Visual Course, Teheran, Iran. He was awarded the Honorary Diploma, American Farm School, Thessalonika, Greece.

Milo J. Peterson served as Minnesota representative, Regional Planning Committee, Midwest Conference on Rural Life and Education, 1950-52; superintendent, Education Department, Minnesota State Fair, 1950-52; consultant for Japanese Leaders Training Program in cooperation with SCAP and the Institute of International Education, 1951; president, Agricultural Teacher Trainers Section, American Vocational Association, 1952; consultant, Cooperative Project in Educational Administration, University of Chicago and the Kellogg Foundation, 1951-52; secretary, Central Regional Conference for Agricultural Education, U. S. Office of Education cooperating; and member, Youth Committee, American-Swedish Institute, cooperating in American-Swedish Fellow Trainee exchange program, 1950-52. He was awarded life membership in American Vocational Association by the Minneapolis Grain Exchange, sponsors, 1951.

Ray G. Price was elected member, Executive Board, 1950-52, and president, 1951-52, United Business Education Association; member, Executive Board, National Business Teachers Association, 1950; chairman, Committee on Business Teacher Certification, Minnesota Department of Education, 1951-52; and member, Committee on Methods Courses and Laboratory Experiences, National Society of College Teachers of Education, 1950. He served as consultant on Curriculum in Business Education, St. Paul Schools, 1951; and consultant on Economic Education program, General Mills, 1950.

Margaret F. Proshok was named secretary, Home Economics Section, Minnesota Education Association, 1950-51; member, Committee for planning state meeting, Minnesota Home Economics Association and Minnesota Vocational Association; secretary, Epsilon Chapter, Pi Lambda Theta, 1951-52; member, Committee on Revision of Standards for Home Economics Education Departments, Regional Conference for Home Economics Teachers, Trainers and Supervisors, 1952; and member, committee for planning the home economics department in a new junior high school, St. Paul, 1952.

Maynard C. Reynolds was named chairman, Advisory Committee on Public School Education for Mentally Retarded Children, Minnesota Department of Education, 1952.

Philip R. Schwab served as president of Council, Richfield Parent-Teachers Association, 1951-52; member, Advisory Committee, Family Relations Court,

Richfield, 1951-52; and member, Education Committee, Governor's Second and Third Conference on Children and Youth, 1951-52.

Dora V. Smith served as member, Minneapolis Curriculum Council; member, Language Arts Committee on New Minnesota State Curriculum; and director, National Commission on the English Curriculum, National Council of Teachers of English.

Homer J. Smith served as consultant on the following projects: Industrial Arts and Vocational Education, St. Paul Public Schools Survey, 1951-52; Curriculum Committees on Industrial Education and on Guidance and Counseling, Minnesota Department of Education, 1950-52; reorganization of the State Civil Service Commission, Minnesota Department of Education, 1952; and offerings and facilities in Industrial Arts, Central High School, Minneapolis, 1952. He was member, Industrial Arts Policy and Planning Committee, American Vocational Association, 1950; president, Scholia (Twin City club of 75 schoolmen), 1951-52; and president, Minnesota Committee for Vocational and Higher Education, 1951-52. He was awarded a "certificate of service" by the Minnesota Vocational Association in recognition of twenty-five years of service in industrial education in Minnesota, 1951.

Betty M. Spears served as program chairman, 1951, and general chairman, 1952, Women's National Aquatic Forum; member, Subcommittee on Synchronized Swimming, 1951, and member, Aquatic Committee, 1951-52, National Section on Women's Athletics; and member, Nominating Committee, Aquatic Section, American Association for Health, Physical Education, and Recreation.

Minard W. Stout served as chairman, Contest Committee, 1950-51, executive secretary-treasurer, 1951, and member, Extra-Curricular Activities Committee, 1950-51, Minnesota Association of Secondary School Principals; vice president, Hennepin County School Administrators Association, 1951; member, Commission for Research and Service, 1950-52, and member, Committee for In-service Education of Teachers, Commission for Research and Service, 1950-52, North Central Association of Colleges and Secondary Schools. He served as an examiner for the Commission of Colleges and Universities, North Central Association, in the evaluation of three junior colleges, 1951; was appointed to the Committee of Thirty (planning committee), National Conference of Professors of Educational Administration, 1950; and served as president, Association of Laboratory School Administrators, North Central States, 1950-51.

Robert B. Sutton served as consultant, revision of basic science examinations, Minnesota State Board of Architectural Examiners, 1950-51; and was named fellow, Philosophy of Education Society, 1952.

Gordon I. Swanson was named assistant superintendent, Education Department, Minnesota State Fair, 1951-52; consultant, Community Education Studies, and recorder and evaluator, Midwest Conference on Rural Life and Education, Sioux Falls, South Dakota, March, 1952.

Marjorie A. Swanson was co-editor, *Minnesota Business Education Newsletter*; member, Program Publications Committee, Minnesota Vocational Association; and treasurer, Delta Pi Epsilon.

Suzanne S. Tinker served as chairman, Camping Section, 1951-52, and summarizer, Recreation Section, 1952, Central District, American Association for Health, Physical Education, and Recreation; member, Board of Directors, 1951-52, and editor, *Newsletter*, 1951-52, Minnesota Section, American Camping Association. She received the All-University Congress Award (faculty) for "outstanding contributions to student activities at the University."

Tracy F. Tyler was elected president, Minnesota Radio Council, 1950-51; and secretary-treasurer, Minnesota Chapter, Horace Mann League of the United States. He served as faculty sponsor, 1950-52, Eta Chapter, and member, National Council, 1950-51, Phi Delta Kappa; consultant to Radio Committee, Minnesota Education Association, 1950-52; chairman, Advisory Committee, Minnesota School of the Air, 1950-52; member, Education Committee, Governor's Advisory Council on Children and Youth, 1950-52; and editor, *Journal of the Association for Education by Radio-Television*, 1950-52.

L. Helen Walters was secretary, Minnesota Aquarium Society, 1950-51.

Edith West served as consultant, Curriculum Committee on Social Studies, Minnesota Department of Education, 1950-52; secretary-treasurer, Min-

nesota Council for the Social Studies, 1951-52; member, Publications Committee, 1950-52, and member, Executive Board, *Social Education*, 1952, National Council for the Social Studies; and member, Publications Committee, Joint Council on Economic Education, 1952.

Ben R. Whiting was named chairman, Committee for Revision of Science Curriculum and Science Curriculum *Bulletin*, Minnesota Department of Education.

Harold T. Widdowson served as member and chairman, Planning Committee, Central Region, Trade and Industrial Education Conference called by Vocational Division, U. S. Office of Education, 1950-52; chairman, Joint Committee on Preparation of Handbook, National Association of Local Directors of Vocational Education, National Association of Industrial Teacher Trainers and National Association of State Supervisors of Trade and Industrial Education; consultant, Safety and Job Training Program, State Advisory Committee, Rural Electrification Administration; and consultant, Industrial Arts and Vocational Education, St. Paul Public School Survey, 1950-52. He was awarded life membership in the American Vocational Association, 1951.

Marjorie U. Wilson served as district research chairman, Central Association of Physical Education for College Women, 1950-52; member, Research Committee, 1950-52, and member, National Workshop Committee, 1950-51, National Association of Physical Education for College Women; chairman, Central District Research, 1950-51, member, Women's Athletics State Committee (national section), 1950-51, and member, National Research Council, American Association for Health, Physical Education, and Recreation; president, Physical Education Teachers of State Colleges in Minnesota, 1952; and as member, Posture Advisory Council, Minnesota Tuberculosis and Health Association.

C. Gilbert Wrenn was appointed member, American Board of Examiners in Professional Psychology, American Psychological Association, 1951-52; appointed by the Governor to the Minnesota State Board of Examiners in Psychology, 1951-52; elected member, Executive Council, American Personnel and Guidance Association, 1952; and president, Division of Counseling and Guidance, American Psychological Association, 1950-51. He was awarded the honorary degree, Doctor of Literature, at Willamette University, June 2, 1952. In 1951 he was recipient of a research grant by the National Academy of Science.

Institute of Child Welfare—John E. Anderson served as member, National Conference on Aging, Washington, D.C., 1950; member and leader of Work Group, Mid-Century White House Conference on Children and Youth, 1950; vice chairman, U. S. National Committee for Childhood Education, 1952; member and chairman, Committee on Living Arrangements, Minnesota Commission on Aging, 1950-52; member, Editorial Committee, *Annual Review of Psychology*, 1950-52; member, Committee on Scientific and Professional Ethics, American Psychological Association, 1950-52; honorary member of Council, Section on Psychology, British Association for Advancement of Science, Edinburgh, 1951; member, 13th International Congress of Psychology, Stockholm, Sweden, 1951; member, 10th International Congress of Psychotechnics, Gothenburg, Sweden, 1951; and delegate to Third National Conference of U. S. National Commission for UNESCO, January, 1952.

Harriet E. Blodgett served as member, Advisory Committee on Special Education, Minnesota Department of Education, 1951-52.

Donald M. Brieland was consultant, Mental Health Seminars for Teachers, State Department of Health, 1950-52; and was elected president, Minnesota Family Life Council, 1951.

Evelyn D. Deno was named member, Board of Advisers, Elliot Park Neighborhood House Nursery School, Minneapolis.

Elizabeth M. Fuller served as consultant on early childhood education, Minnesota Citizens Committee on Education. She was elected general chairman of National Convention, National Association for Nursery Education.

Dale B. Harris served as member, Citizens Committee on Public Education, Minneapolis, and as member of its Subcommittee on Research, 1950-52; and represented the American Psychological Association at the 1950 Mid-Century White House Conference on Children and Youth.

Amy D. Peterson served on Publicity Committee, Midwest National Association for Nursery Education, 1951.

Merrill F. Roff was awarded a research contract on personnel selection and classification, and a research contract on motor aptitudes, School of Aviation Medicine, U. S. Air Force; and served as member of Council, American Association for the Advancement of Science.

School of Dentistry—William H. Crawford served as member of Council, National Board of Dental Examiners, 1950-52; and was associate editor of the new journal of dental literature, *A Digest of Dental Science*.

Ambert B. Hall served as trustee, Minnesota State Dental Association, 1952; and as secretary, Minnesota Section, American College of Dentists, 1951.

Norman O. Holte was named member, Executive Council, Minneapolis District Dental Society, 1950-51.

David F. Mitchell served as member, Board of Directors, Minnesota Section, American Cancer Society, 1951.

Law School—Edward S. Bade was member, Committee on Law Library Standards, Association of American Law Schools, 1950-51.

Kenneth C. Davis was recipient of the Henderson Award by the faculty of Harvard Law School, for "critical and constructive written work, of outstanding excellence, dealing with Administrative Law or other legal problems affecting government," 1952; was appointed hearing commissioner for National Production Authority, 1952; and was appointed to Enforcement Commission, Wage Stabilization Board, 1952.

William B. Lockhart was appointed by Governor as public member and chairman, of the following: Fact Finding Commission in connection with threatened strike of employees of U. S. Bedding Company, St. Paul, 1951; and of Minneapolis and Suburban Bus Company, 1952. He served as public member, and chairman of a panel appointed to adjust a public employee labor dispute in Brainerd, 1952; and was chairman, Committee on State and Federal Labor Relations Law, Labor Law Section, Minnesota Bar Association, 1951-52.

David W. Louisell served as member, Committee on Labor Law, Bar Association of the District of Columbia, 1950; member, Committee on Legal Institutes, Minnesota State Bar Association, 1950-52; and member, Committee on Academic Freedom and Tenure, Minnesota Chapter, American Association of University Professors, 1951-52.

Robert C. McClure served as member, Non-Profit Corporation Committee, 1950-52, member, Constitution Revision Committee, 1950-52, and member, Trusts Committee, 1950-52, Minnesota State Bar Association; secretary and treasurer, 1950-51, and vice president, 1951-52, Minnesota Chapter, American Association of University Professors.

Monrad G. Paulsen was public member, Regional Wage Stabilization Board, Region 8, 1951-52; member, Conflict of Laws Round Table Council, 1952, member, Legal History Round Table Council, 1950-51, and member, Committee on Legal Aid, 1950-52, American Association of Law Schools.

Maynard E. Pirsig served as member, Advisory Committee on Rules of Civil Procedure for Federal District Courts, United States Supreme Court, 1950-52; chairman, Advisory Council, Minnesota Division of Employment and Security, 1950-52; member, Regional Loyalty Board, U. S. Civil Service Commission, 1951-52; secretary, Minnesota Judicial Council, 1950-52; state commissioner on uniform laws, 1950-52; and chairman, Committee on Juvenile Courts, Governor's Advisory Council on Youth, 1950-52.

Joseph F. Rarick was chairman, Committee on Cooperation with the Bench and Bar, Association of American Law Schools, 1951-52; co-chairman, Joint Conference on Professional Responsibility, American Bar Association and the Association of American Law Schools, 1952; member, Committee on Trusts, Minnesota State Bar Association, 1951-52.

Stefan A. Riesenfeld received a grant from the State Department under the exchange of personnel program to lecture in Germany and consult with German authorities about improvement of the Social Security program, 1951. He was appointed technical adviser, State Interim Commission, for the review of workmen's compensation laws, 1951-52; was general reporter,

Round Table on Comparative and Social Security Laws, American Association of Law Schools, at annual meeting, 1951; and served as member, American delegation to the conference on comparative law held at Cambridge, England, and as general reporter on Labor and Social Security Laws, 1952.

Charles A. Wright served as chairman, Minnesota Procedural Reform Section, Junior Bar Conference, American Bar Association, 1952; and secretary, Court Rules Committee, Minnesota Bar Association, 1952.

College of Pharmacy—Willard J. Hadley was elected secretary, Minnesota State Pharmaceutical Association.

Charles V. Netz served as member, Executive Committee, Minnesota State Pharmaceutical Association; and member, Minnesota State Board of Health.

Charles H. Rogers was awarded the honorary degree, Doctor of Science, by the University of Michigan, October 25, 1951.

Graduate School—Theodore C. Blegen served as member, Corning Conference, 1952; chairman, Committee on College Teaching, American Council on Education, 1952; and was appointed member of the jury on Bancroft Prizes, 1951. He was recipient of an award of merit from the American Association for State and Local History for his book, *The American Transition*, which was named "The best single history of a noteworthy group in the United States," 1952. He received the decoration of Knight, First Class, Order of St. Olaf, 1950.

John G. Darley served as member, Mayor's Council on Human Relations, 1951-52; and was elected to Policy and Planning Board, American Psychological Association, 1950-52.

Mayo Foundation for Medical Education and Research—Richard C. Adams served as examiner, American Board of Anesthesiology, 1950-52; chairman, Committee on Anesthesiology, 1950-52, and member, Executive Committee, Committee on Public Health Education, 1951-52, Minnesota State Medical Association; delegate of the Minnesota Society of Anesthesiologists to the House of Delegates, The American Society of Anesthesiologists, 1951-52; and member, Committee on Constitution and By-Laws, Minnesota Society of Anesthesiologists, 1951-52.

Alexander Albert served on Editorial Board, *Endocrinology*, 1951-52.

Edgar V. Allen was chairman, Committee on Report of Board of Trustees, 1950-51, secretary, 1950-51, and chairman, 1951-52, Committee on Distinguished Service Award, member, House of Delegates, representing Section on Experimental Medicine and Therapeutics, 1950-52, and acting chairman, Association of Section Delegates, 1951-52, American Medical Association; president, Central Society for Clinical Research, 1950-51; vice president and member, Board of Directors, 1950-51, member, Board of Directors and Executive Committee, 1951-52, and vice chairman, Medical Advisory Committee of the Council for High Blood Pressure Research, 1951-52, American Heart Association; member, Subcommittee on Cardiovascular Diseases, Committee on Medicine, National Research Council, 1950-51; member, Board of Directors, Minnesota Heart Association, 1950-52.

Mark J. Anderson was delegate, 1950-51, member, Interprofessional Relations Committee, 1951-52, and member, Community Research Council Committee, 1951-52, Minnesota State Medical Association. He was elected president, Rochester Community Chest (Minnesota), 1950-52.

Milton W. Anderson served as member, Editorial Board, *Diseases of the Chest*, 1951-52.

Louie T. Austin served as censor, American College of Dentists.

Archie H. Baggenstoss was contributing editor, *American Journal of Clinical Pathology*, 1951-52.

Edward J. Baldes served as member, Advisory Committee on Electroencephalography, Council on Physical Medicine and Rehabilitation, American Medical Association, 1951-52; member, Council, American Electroencephalographic Society, 1950-51; fellow: American Physical Society, Institute of Physics (London), and Aero Medical Association, 1951-52; member, Editorial Board, *International Journal of Electroencephalography and Clinical Neurophysiology*, 1951-52; member, Committee on Aviation Medicine, National Re-

search Council, 1950-51; member of panel to Europe to study aviation medicine and surgery, 1950-51; chairman, Panel on Aviation Medicine, Committee on Medical Sciences, Research and Development Board, National Military Establishment, 1951-52; member, Panel on Aero Medicine, Scientific Advisory Board, Chief of Staff, U. S. Air Force, 1951-52; member and councilor, Minnesota Academy of Science, 1951-52; and honorary member, and fellow, Aero Medical Association. He was awarded the Knighthood of St. Gregory the Great, 1950-52; and Chevalier of the French Legion of Honor, 1950-52.

William M. Balfour was elected president, Rochester (Minnesota) Community Concerts, Inc., 1950-52.

Edward A. Banner was named chairman, Committee on Rotary Foundation Scholarship (Minnesota), 1950-52; and president, Rochester (Minnesota) Rotary Club.

Jacob A. Barga served as delegate from Minnesota, American Medical Association; member, Governing Board, American Gastroenterological Association; delegate and member, State Board of Medical Examiners, and chairman, Council on Medical Service, Minnesota State Medical Association; and member, Editorial Board, *Gastroenterology*.

Nelson W. Barker served as member, Board of Directors, 1950-52, and vice president, 1951-52, American Society for the Study of Arteriosclerosis; vice chairman, Vascular Section, American Heart Association, 1951-52; and delegate, Minnesota State Medical Association, 1950-52.

Arlie R. Barnes was named member, Board of Directors, Inter-American Society of Cardiology, 1950-52; member, Joint Committee of American Heart Association and National Foundation for High Blood Pressure, 1950-52; and member, Subcommittee on Cardiovascular Diseases, Committee on Medicine, National Research Council.

William L. Benedict (emeritus) served as member, 1950-51, and chairman, 1951-52, Committee on Medical Motion Pictures, delegate, Section on Ophthalmology, 1951-52, and member, Editorial Board, *Archives of Ophthalmology*, 1951-52, American Medical Association; consultant, American Board of Ophthalmology, 1950-52; director, 1950-51, and vice president, 1951-52, National Society for Prevention of Blindness; secretary-treasurer, American Academy of Ophthalmology and Otolaryngology, 1950-52; secretary-general, XVII International Congress of Ophthalmology, 1951-52; and member, Audio-Visual Committee, Association of American Medical Colleges, 1951-52. He was awarded the Leslie Dana Medal; honorary life membership, Academy of Optometry, 1951; and honorary fellowship, International College of Surgeons.

Warren A. Bennett received Honorable Mention, Award Exhibit, American Medical Association.

Joseph R. Berkson served as member, Committee on Statistical Research, American Cancer Society, 1950-52; member, Council, International Biometrics Society, 1951-52; member, Subcommittee on Medicine, Committee on Applied Mathematical Statistics, National Research Council, 1950-52; and as member, U. S. Subcommittee on Hospital Statistics, World Health Organization, 1951-52.

William H. Bickel was examiner, American Board of Orthopaedic Surgery, 1950-52; member, Committee on Instruments and Gadgets, American Academy of Orthopaedic Surgery, 1951-52; regional chairman, Committee on Trauma, 1951-52, and member, Committee on Study of Tuberculosis, 1951-52, American College of Surgeons.

Reginald G. Bickford was examiner, Certification Board, 1951-52, member, Nominating Committee, 1950-52, and member of Council, 1951-52, American Electroencephalography Society; president, 1950-51, and member of council, 1951-52, Central Association of Electroencephalographers.

Jesse L. Bollman was named vice president, Association for Study of Liver Disease, 1951-52; member, Josiah Macy Jr., Foundation Conference on Liver Injury, 1951-52; and member, Committee on Fellowship Awards, American Gastroenterologic Association, 1951-52. He received a Certificate of Merit for exhibit, American Medical Association.

David A. Boyd, Jr., served as associate secretary, American Board of Psychiatry and Neurology, 1950-52; member, Committee on Hospital Policies and Standards, 1950-52, and member, Council, 1950-52, American Psychiatric

Association; and member Special Medical Advisory Group, Veterans Administration, 1950-52.

Francis J. Braceland was awarded the Knighthood of St. Gregory the Great.

Alex E. Brown was elected vice president, 1950-52, and delegate, 1950-52, Minnesota State Medical Association; president, 1950-51, and chairman, Executive Committee, 1951-52, Minnesota Society of Internal Medicine.

Joe R. Brown was treasurer, 1950-52, and member, Committee on Special Study Courses, 1951-52, American Academy of Neurology; area consultant in neurology, Veterans Administration, 1951-52; and member, Committee on Nervous and Mental Diseases, Minnesota State Medical Association, 1951-52.

Louis A. Brunsting was elected secretary, 1950-51, and member, Committee on Education, 1951-52, American Academy of Dermatology and Syphilology; secretary, American Dermatologic Association, 1950-52; and was awarded a Certificate of Merit for exhibit, American Medical Association.

Louis A. Buie served as member, Judicial Council, 1950-52, chairman, Council on Constitution and By-Laws, 1950-52, member, National Conference on Rural Health, 1950-52, and member, House of Delegates, 1950-52, American Medical Association; member, Advisory Board for Medical Specialties, 1950-52; secretary, American Board of Proctology, 1950-52; vice president, U. S. Chapter, International College of Surgeons, 1950-52; member, Committee on Professional Education and Publications, National Foundation for Infantile Paralysis, 1951-52; chairman, Committee on Medical Ethics, 1951-52, member, Executive Committee of the Committee on Medical Economics, 1951-52, and member, Committee on University Relations, 1951-52, Minnesota State Medical Association. He received the Honor Award for 1952, Alumni Association of the University of Maryland.

Howard B. Burchell was member, Consultants on Electrocardiographs, Council on Physical Medicine, American Medical Association, 1950-52; member, Committee on Allocation of Research Funds, American Heart Association, 1950-52; and vice president, Minnesota Society for Experimental Biology and Medicine, 1951-52.

Hugh R. Butt served as secretary, Section on Experimental Medicine and Therapeutics, American Medical Association, 1950-52; member, Subspecialty Board of Gastroenterology, American Board of Internal Medicine, 1950-52; member, Admissions Committee, American Gastroenterology Association, 1951-52; and member, Editorial Board, *Archives of Internal Medicine*, 1950-52.

David T. Carr was member, Committee on Therapy, American Trudeau Society, 1951-52; and member, Sanatorium Consultation Committee, Minnesota Trudeau Society and Minnesota State Department of Health, 1950-52.

Hadden M. Carryer served as chairman for Minnesota, National Convention of County Medical Society Officers, American Medical Association; vice chairman, member, Executive Committee on Public Health Education, member and chairman, Speakers' Bureau, and vice speaker, House of Delegates, Minnesota State Medical Association; and secretary, Olmsted-Houston-Dodge-Fillmore County Medical Society.

O. Theron Clagett served on Membership Committee, American Association for Thoracic Surgery, 1951-52; was area consultant in Thoracic Surgery, Veterans Administration, 1951-52; and member, Judiciary Committee for the State of Minnesota, American College of Surgeons, 1951-52. He was awarded a fellowship by the Royal Australasian College of Surgeons, and was named honorary member, Mexican National Academy of Surgery.

Charles F. Code served as member, Board of Trustees, Minnesota Medical Foundation, 1951-52.

Mandred W. Comfort was member, Committee on Standardization of Laboratory Procedures, 1950-52, member, National Committee for the Study of Peptic Ulcer, and member, Subcommittee on Hormones, 1950-52, American Gastroenterological Association; and member, Gastric Cancer Committee, National Advisory Cancer Council, 1950-51.

Edward N. Cook served as member, Committee to Judge Scientific Exhibits, 1951-52, and member, North Central Branch, 1951-52, American Urological Association; and member, Executive Committee, Section on Urology, American Medical Association, 1950-52.

Kendall B. Corbin was member, Committee on Post-Doctoral Education, Association of American Medical Colleges, 1950-52; and member, Education Committee, American Academy of Neurology, 1951-52.

Markham B. Coventry was member, Committee on Medical Abstracts for the *Bone and Joint Journal*, American Academy of Orthopaedic Surgeons, 1951-52; and member, Medical Testimony Committee, Minnesota State Medical Association, 1951-52.

Winchell M. Craig served as member, Committee on Medical Motion Pictures, American College of Surgeons, 1951-52; member, Executive Committee, Harvey Cushing Society, 1951-52; member, Committee on Legislation, American Academy of Neurology, 1951-52; member, Editorial Board, *Journal of Neurosurgery*, 1951-52; member, Committee on Veterans Affairs, 1950-51, and member, Committee on Naval Medical Research, 1951-52, National Research Council; chairman, Reserve Consultants Board, Bureau of Medicine and Surgery, Department of the Navy, 1951-52; neurosurgical consultant, Area 8, Veterans Administration, 1951-52; 1st vice president, Association of Military Surgeons of the United States, 1951-52; and member, Council, Society of the U.S. Medical Consultants in World War II, 1951-52.

Ormand S. Culp was member, Public Relations Committee, American Urological Association, 1951-52.

Malcolm B. Dockerty was member, Tumor Registry, Central Association of Obstetrics and Gynecology, 1951-52; and member, Tumor Seminar Committee, Minnesota Society of Clinical Pathologists, 1951-52.

Thomas J. Dry was member, Education Committee, American Heart Association; president, 1950-51, and member, Board of Directors, 1950-52, Minnesota Heart Association.

L. McKendree Eaton was elected secretary-treasurer, 1950-51, and vice president, 1951-52, Central Neuropsychiatric Association; and president, Minnesota Society of Neurology and Psychiatry, 1951-52.

Jesse E. Edwards served as member, Councilors, 1950-52, and member, Editorial Board, Laboratory Investigation, 1951-52, International Association of Medical Museums; member, Committee on Registry of Cardiovascular Pathology, American Heart Association, 1950-52; contributing editor, *American Journal of Clinical Pathology*, 1951-52; and consultant to Surgeon General, U. S. Army, 1951-52.

Earl C. Elkins served as chairman, Committee on Education, American Congress of Physical Medicine, 1952, and member, Subcommittee on Essentials, Council on Education and Hospitals, 1950-51, American Medical Association; member, Board of Editors, *Archives of Physical Medicine*; consultant to the Surgeon General of the Army, 1951-52; and chairman, Committee on Education, American Congress of Physical Medicine.

John L. Emmett was elected secretary-treasurer, North Central Section, American Urological Association, 1951-52.

John B. Erich was elected president and member, Board of Trustees, American Society of Maxillo-Facial Surgeons, 1950-52.

Donald J. Erickson served as chairman, Midwestern Section, 1951-52, and member, Committee to Foster, Encourage, and Coordinate Research, 1951-52, American Congress of Physical Medicine; area consultant in physical medicine and rehabilitation, Veterans Administration; and consultant to the Council on Physical Medicine and Rehabilitation, American Medical Association.

Hiram E. Essex served as member, Council, 1951-52, secretary, 1951, and member, Editorial Board, 1950-52, American Physiological Society; member Cardiovascular Study Section, National Institute of Health, 1950-52; and president and member, Council, Minnesota Academy of Science, 1951-52.

John E. Estes was associate editor, *Circulation*, 1951-52; and president, American Amateur Hockey League, Rochester, 1951-52.

John E. Faber was a member, Maternal Welfare Committee, Minnesota State Medical Association, 1951-52.

Albert Faulconer, Jr., was a member, Board of Governors, American College of Anesthesiologists, 1951-52; and member, Subcommittee on Anesthesia, National Research Council, 1951-52.

William H. Feldman served as member, Medical Advisory Board, Leonard Wood Memorial, American Leprosy Foundation, 1951-52; member, Medical

Advisory Board, Colorado Tuberculosis Foundation, 1950-52; member, Editorial Board, *American Review of Tuberculosis*, 1951-52; president and member, Council, American Association of Pathologists and Bacteriologists, 1952; president, Conferences of Research Workers in Animal Diseases in North America, 1952; member, Committee on Pathology, 1950-51, and member, Committee on Animal Health, Agricultural Board, 1950-52, National Research Council; member, Scientific Advisory Board, Armed Forces Institute of Pathology, 1950-52; and ex-officio member, Committee on Tuberculosis, Minnesota State Medical Association, 1951-52. He was named honor alumnus, Achievement for 1950, by Colorado State College.

Deward O. Ferris was a member, Committee on Applicants for District Number 2 of Minnesota, American College of Surgeons, 1951-52.

Fred A. Figi was member, American Board of Plastic Surgery.

Eunice V. Flock was member, Women's Service Committee, American Chemical Society, 1951-52.

Clifford F. Gastineau served as member, Committee on Food Values, 1951-52, and member, Committee on Scientific Evaluation, 1951-52, American Diabetes Association.

Ralph K. Ghormley was member, Committee on Eligibility, American Board of Orthopedic Surgery, 1951-52; and was elected fellow, American Surgical Association.

Clarence A. Good served as chairman, 1950-51, and member, 1951-52, Committee on Scientific Exhibits, and member, 1950-51, Executive Committee, American Roentgen Ray Society; and member, Committee on Hospitals and Professional Relations, Minnesota State Medical Society, 1951-52.

Howard K. Gray served as member, Executive Commission for the Improvement of the Care of the Patient, American Medical Association, 1950-52; member, Board of Consultants, U. S. Navy, 1950-52; member, Society of U. S. Medical Consultants of World War II, 1951-52; and member, Board of Consultants to Surgeon General, 1951-52. He was Moynihan lecturer, Royal College of Surgeons, and Rutherford-Morison lecturer, Durham University, England; and honorary member, Surgical Section, Royal Society of Medicine, England. He was awarded the Legion of Merit, World War II.

Byron E. Hall was member, Study Section, Experimental Therapeutics, National Institute of Health, 1950-52.

Stuart W. Harrington was member, Advisory Editorial Board, *The Journal of Thoracic Surgery*.

Lloyd E. Harris was alternate member, National Advisory Council, Mooseheart Laboratory for Child Research, 1951-52.

Howard R. Hartmen holds permanent membership in the following: Sociedad Medica-Quirunega del Guayas, Ecuador; Accion medica del Peru, Peru; Honorio Academia Nacional de Medicina, Peru; Orden de Boyaca, Colombia; Academia Nacional de Medicina, Brazil; and Orden el Sol del Peru, Peru.

Frank J. Heck was special examiner, American Board of Internal Medicine, 1951-52; and member, Committee for Revision of Nomenclature in Hematology, 1950-52.

Gustav A. Hedberg served as president-elect, Mississippi Valley Trudeau Society, 1951-52; member, Executive Committee, American Trudeau Society, 1951-52; area consultant in tuberculosis, Veterans Administration, 1951-52; member, Committee on Tuberculosis, Minnesota State Medical Association, 1951-52; president, Minnesota Chapter, American College of Chest Physicians, 1951-52; vice president, St. Louis County Medical Society, 1951-52; and member, Governor's Commission for the Study of Tuberculosis Facilities in Minnesota.

Philip S. Hench served as chairman, American Committee, International League Against Rheumatism, 1952; member, Executive Committee, American Rheumatism Association, 1952; member, Council on Arthritis and Metabolic Diseases, National Institute of Public Health, 1952; and member, Medical and Scientific Committee, Arthritis and Rheumatism Foundation, 1952. He was the recipient of the following awards: Nobel Prize (with E. C. Kendall), 1950; Award, Passano Foundation (with E. C. Kendall); Award of Merit, Masonic Foundation for Medical Research and Human Welfare (with E. C. Kendall);

New York New Guild Citation (with E. C. Kendall); and C. C. Criss Award, American Rheumatism Association (with E. C. Kendall). He was awarded the honorary D.Sc. degree by Western Reserve University; the honorary D.Sc. degree by University of Pittsburgh; the honorary LL.D. degree by Middlebury College; and was awarded a fellowship, American Academy of Arts and Sciences. He received the Centennial Award for the Northwest Territory, Northwestern University, 1952.

Wallace E. Herrell served as member, Editorial Committee, *Annual Review of Microbiology*, 1951-52; member, Editorial Board, *Antibiotics and Chemotherapy*, 1951-52; member, subpanel on revision, *United States Pharmacopoeia*, 1951-52; and chairman, Medical Section, Committee on Scientific Assembly, Minnesota State Medical Association, 1951-52.

Julia F. Herrick was member, Administrative Committee, 1950-52, and treasurer, Medical Electronics Group, Institute of Radio Engineers; chairman, Physical Science Section, Minnesota Academy of Science, 1951-52; and received honorable mention, Award Exhibit, American Medical Association.

Richard M. Hewitt served as chairman, Educational Committee, American Medical Writers' Association, 1951-52; member, Editorial Board, American Illustrated Medical Dictionary (Dorland), Edition 22, (1951), 1951-52; chairman, Publicity Committee, Olmsted-Houston-Fillmore-Dodge County Medical Society, 1951-52; and was elected member, Phi Beta Kappa Associates.

Corrin H. Hodgson was member, Committee on Tuberculosis, and chairman, Subcommittee on Tuberculosis Among Displaced Persons, Minnesota State Medical Association, 1950-52; and member, Governor's Interim Tuberculosis Facilities Commission, 1951-52.

Bayard T. Horton was member, New York Academy of Sciences; and was honor guest at the Silver Anniversary, Annual Spring Congress, Gill Memorial Hospital and Roanoke Academy of Medicine.

Arthur B. Hunt served as chairman, 1951, and member, Executive Committee, 1950-52, Section on Obstetrics and Gynecology, member, Committee on Maternal Health, 1950-52, and delegate, 1951-52, Minnesota State Medical Association. He was elected vice president, Minnesota Obstetrical and Gynecological Society, 1951-52.

Raymond J. Jackman was member, House of Delegates, 1950-52, and member, State Health Relations Committee, Committee on Medical Economics, 1951-52, Minnesota State Medical Association.

Adelaide M. Johnson served as chairman, Standing Scientific Panel on Psychotherapy, American Psycho-analytic Society; member, National Committee on Professional Standards of Training for Child and Adolescent Analysts; and member, National Committee on Education of Public Health Nurses, 1950-52.

Victor Johnson served as member, Council on Medical Education and Hospitals, and member, Committee on Survey of Medical Education, American Medical Association; member, Advisory Board for Medical Specialties, 1950-51; member, Board of Directors, American Medical Education Foundation; member, Board of Directors, National Society for Medical Research; chairman, Committee on Extension and Policy, Alpha Omega Alpha; member, Advisory Council, National Fund for Medical Education; and member, Board of Honorary Civilian Consultants to the Surgeon General of the Navy.

Alfred G. Karlson served as president, 1950-51, and member, Council, 1950-52, American College of Veterinary Pathology; member, Laboratory Subcommittee, National Tuberculosis Association, 1950-51; secretary-treasurer, Conference of Research Workers in Animal Diseases, 1951-52; member, National Board of Veterinary Examiners, 1951-52; editor, Section on Veterinary Science, *Biological Abstracts*, 1951-52; advisory editor, *Journal of Bacteriology*, 1951-52; and member, the United States Committee for the Fifteenth International Veterinary Congress, 1951-52.

F. Raymond Keating was member, Editorial Board, *Journal of Clinical Investigation*, 1950-52.

Haddow M. Keith was examiner, American Board of Pediatrics, 1951-52.

Edward C. Kendall was recipient of the Nobel Prize (with Philip S. Hench), 1950; award, Passano Foundation (with Philip S. Hench); award of merit, Masonic Foundation for Medical Research and Human Welfare (with

Philip S. Hench); New York New Guild Citation (with Philip S. Hench); and the C. C. Criss award, American Rheumatism Association (with Philip S. Hench).

Roger L. J. Kennedy served as member, Executive Board, 1950-52, chairman, District 6, 1950-52, member, Committee for Improvement of Child Health, 1950-51, and member, Committee on Pediatric Education, 1950-51, American Academy of Pediatrics; president, 1952, member, Committee on Child Health, 1950-52, and first district councilor, 1950-51, Minnesota State Medical Association; and member, Editorial Board, *American Journal of Diseases of Children*. He was awarded the Knighthood of St. Gregory the Great.

James W. Kernohan was member, Study Section, National Institute of Health Pathology, 1950-51; member, Scientific Advisory Board, Armed Forces Institute of Pathology, 1950-52; and member, American Board of Pathology.

Robert R. Kierland served as dermatologic editor, *Quarterly Review of Internal Medicine and Dermatology*, 1951-52; special consultant (syphilis), United States Public Health Service, 1951-52; special consultant (dermatology and syphilology), Veterans Administration, 1951-52; delegate, Section of Dermatology and Syphilology, American Medical Association, 1951-52; and past president, Minnesota State Dermatological Association. He received a Certificate of Merit for Exhibit, American Medical Association. He was elected president, Rochester Automobile Club, 1950-52; member, Executive Committee, U. S. Figure Skating Association, 1950-52; and member, Board of Directors, Kiwanis Club, Rochester, Minnesota, 1951-52.

Byrl R. Kirklin served as member, House of Delegates, 1950-52, chairman, Committee on Veterans Affairs, 1950-51, and member, Committee on Public Relations, Board of Trustees, 1951-52, American Medical Association; secretary-treasurer, Advisory Board for Medical Specialties, 1950-52; secretary-treasurer, American Board of Radiology, 1950-52; and chairman, Minnesota Advisory Committee, National Advisory Committee for Selective Service, 1950-52.

John W. Kirklin was member, Board of Directors, Minnesota Heart Association, 1950-52.

Giles A. Koelsche served as program chairman, combined Graduate Instructional Course in Allergy and Eighth Annual Congress, American College of Allergists, 1952.

Lawrence C. Kolb was member, Association of Research for Nervous and Mental Diseases, 1951-52; member, Committee on Constitution, American Psychiatric Association, 1951-52; member, Committee on Medical Legislation, American Neurologic Association, 1951-52; member, Committee on Public Relations, American Academy of Neurology, 1951-52; member, Committee on Problems of Alcohol, 1950-52; and member, Committee on Naval Medical Research, 1951-52, National Research Council; member, Governor's Advisory Council in Mental Health, 1951-52; and member, Advisory Council, Public Health Center, 1951-52.

Frank H. Krusen served as chairman, Council on Physical Medicine and Rehabilitation, 1950-52, and member, House of Delegates, 1950-52, American Medical Association; treasurer, American Congress of Physical Medicine, 1951-52; counselor, National Society for Crippled Children and Adults, 1951-52; chairman, Interim Committee, International Federation of Physical Medicine, 1951-52; vice president, International Congress of Physical Medicine, 1952; consultant on physical medicine to the surgeon general, U. S. Army, 1951-52; and corresponding member, Sociedad Argentina de Medicina Fisica. He holds honorary membership in the following: Danish Society of Physical Medicine; British Association of Physical Medicine; Section of Physical Medicine, Royal Society of Medicine of England; and Liga Argentina Contra El Reumatismo. He received honorable mention for exhibit, American Medical Association.

Clifford F. Lake was member, Home Study Course Faculty, American Academy of Ophthalmology and Otolaryngology, 1951-52; and delegate, Minnesota State Medical Association, 1950-52.

Edward H. Lambert was consultant in the field of acceleration, Department of the Navy. He was recipient of the Tuttle Award, International Aviation Medicine Association, for best paper published in *Journal of Aviation Medicine*, 1952.

Harold I. Lillie served as member, examining board (otolaryngology), American Academy of Ophthalmology and Otolaryngology.

Paul R. Lipscomb was member, Scientific Committee, 1952, and chairman, Committee to Study the Preservation of Bone, 1950-52, American Academy of Orthopaedic Surgeons.

George B. Logan was chairman, Child Health Committee, Minnesota Medical Association, 1951-52; and member, Planning Committee on Health, Third Governor's Conference on Children and Youth, 1951-52.

J. Grafton Love holds honorary membership in the Italian Society of Neurosurgery and in the International College of Surgeons.

Stanley A. Lovstedt was member, State Hospital Dental Service Committee, Minnesota State Medical Association, 1951-52; member, Board of Directors, 1950-52, and chairman, Grants and Aids Committee, 1950-52, Minnesota Dental Foundation; and editor, Minnesota Section, International Association for Dental Research, 1951-52.

John S. Lundy served as secretary, Section on Anesthesiology, American Medical Association, 1950-52; chairman, Committee on First Aid and Red Cross, 1950-52, and member, Executive Committee, Committee on Public Health Education, 1951-52, Minnesota State Medical Association; and member, American Board of Anesthesiology. He received the honorary degree of Doctor of Science, University of North Dakota; and the Honorary LL.D. degree from Hahnemann Medical College; and was awarded an honorary fellowship in the International College of Surgeons, 1951-52.

Thomas B. Magath served as member, Board of Governors, College of American Pathologists, 1950-51; member, Board of Governors, Liberian Institute of Tropical Medicine, 1951-52; member, Advisory Committee, National Doctors Committee for Improved Federal Medical Services, 1950-52; consultant in tropical medicine, Veterans Administration, 1951-52; and member, Committee on Cancer, Minnesota State Medical Association, 1950-52.

Frank C. Mann served as chairman, Editorial Committee, *Annual Reviews of Physiology*, 1952; member, Physiology Study Section, National Institute of Health, 1950-52; member, Committee on Gastrointestinal Cancer, National Cancer Institute, 1952; and member, National Academy of Science.

Frank D. Mann was member, Program Committee, American Society of Clinical Pathologists, 1951-52; and contributing editor, *American Journal of Clinical Pathology*, 1951-52.

Gordon M. Martin was elected vice president (4th), 1951-52, and chairman, Committee on Gold Key Awards, 1951-52, American Congress of Physical Medicine; and chairman, Subcommittee on Physical Medicine and Rehabilitation, Governor's Advisory Council on Mental Health, 1951-52.

Harold L. Mason was member, editorial board, *Journal of Clinical Endocrinology*, The Endocrine Society, 1951-52; assistant editor, *Chemical Abstracts*, American Chemical Society, 1951-52; and member, Panel on Hormones, Committee on Growth, National Research Council, 1951-52.

Don R. Mathieson was chairman, Committee on Laboratory Reports, American Society of Clinical Pathologists, 1951-52.

Charles W. Mayo served as member, Armed Services Medical Committee, National Research Council, 1950-52; member, Special Medical Advisory Group, Veterans Administration, 1951-52; member, Medical Advisory Board, The American Legion, 1951-52; member, Board of Directors, Minnesota Public Health Association and Minnesota State Medical Association, 1951-52; member, Board of Regents, University of Minnesota; member, Board of Trustees, Carleton College; member, Board of Directors, Northwest Airlines; editor-in-chief, *Postgraduate Medicine*; member, Board of Judges, C. C. Criss Award; and member, Editorial Board, *Surgery*. He received an honorary fellowship, International College of Surgeons.

John R. McDonald was consultant in cytology, College of American Pathologists, 1951-52; and counselor, American Association of Clinical Pathologists, 1951-52.

Bernard F. McKenzie was member, Minnesota Section, American Chemical Society.

Wallace A. Merritt was member, Committee on Prevention of Brucellosis, 1951-52; chairman, District Scholarship Committee, Minnesota Alumni Associa-

tion, 1950-52; secretary-treasurer, 1950-51, and president, 1950-52, Southern Minnesota Medical Association.

Clark H. Millikan was chairman, Membership Committee, American Academy of Neurology, 1951-52.

Frederick P. Moersch was a member, Executive Committee, Section of Nervous and Mental Diseases, American Medical Association, 1951-52; member, Advisory Board for Medical Specialties, 1950-51; vice president, American Neurologic Association, 1951-52; and delegate, Minnesota State Medical Society, 1951-52.

Herman J. Moersch served as member, Board of Governors, American College of Chest Physicians, 1950-52; president, and member, Council, American Broncho-Esophagological Association, 1950-52; member, Council on Endoscopy, American Gastroenterological Association, 1950-52; member of Council, American Gastroscopic Society, 1951-52; chairman, Committee on Awards, American College of Chest Physicians, 1951-52; member, Executive Committee, 1950-52, and chairman, Medical Contact Committee, 1951-52, Minnesota Public Health Association.

Hamilton Montgomery was chairman, Committee on Pathology, American Academy of Dermatology and Syphilology, 1951-52; and second vice president, Minnesota State Automobile Association, 1951-52.

Kenneth N. Ogle served as member, American Committee on Optics and Visual Physiology, American Medical Association, 1951-52; member, Committee on Research, National Society for Prevention of Blindness, 1950-52; member, Armed Forces Vision Committee, National Research Council, 1950-52; consultant, Medical Research Laboratory, U. S. Naval Submarine Base, New London, Connecticut, 1951-52; and associate editor, *Archives of Ophthalmology*.

Paul A. O'Leary is honorary member of the following: Pacific Dermatologic Association; Berliner Dermatologische Gesellschaft; Omaha Midwest Clinical Society; Hellenic Antivenereal Society; Societa Italiana di Dermatologie e Siflografia; Nederlandsche Vereeniging van Dermatologen; Royal Society of Medicine, Section of Dermatology, London, England; Manhattan Dermatological Society; Osterreichische Dermatologische Gesellschaft. He served as senior member, Board of Directors, American Dermatological Association; special consultant, Division of Venereal Diseases, Public Health Service; president, Olmsted-Houston-Fillmore-Dodge County Medical Society, 1951; president, Staff of Mayo Clinic, 1951; chief editor, *Archives of Dermatology and Syphilology*; dermatologic editor, *Current Therapy*, W. B. Saunders & Co.; associate editor, *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); and member, Committee on Diseases of the Skin (standard nomenclature). He received a Certificate of Merit for Exhibit, American Medical Association.

Arthur M. Olsen served as chairman, Committee on Broncho-esophagology, 1951-52, member, Council on Management and Treatment of Pulmonary Diseases, 1951-52, and member, Examining Board, 1951-52, American College of Chest Physicians; president, Minnesota Trudeau Medical Society, 1951-52; and secretary, Minnesota Chapter, American College of Chest Physicians, 1951-52.

Robert L. Parker was secretary, Minnesota Society of Internal Medicine, 1950-52; and member, Board of Directors, Minnesota Heart Association, 1950-52.

John W. Pender was named member, Committee on Clinical Records, American Society of Anesthesiologists, 1951-52; regional consultant in anesthesiology, Veterans Administration, National Research Council, 1951-52; and vice president, Minnesota Society of Anesthesiologists, 1951-52.

Howard F. Polley was anonymous consultant on "Queries and Minor Notes," American Medical Association, 1951-52; member, Program Committee, American Rheumatism Association, 1951-52; chairman, Olmsted County Medical Advisory Committee, Minnesota State Medical Association, 1951-52.

Marschelle H. Power was member, Executive Committee, American Association of Clinical Chemists, 1952.

Avery D. Prangen was named chairman, National Interprofessional Committee on Eye Care, 1950-52; president, American Orthoptic Council, 1951-52; and member, American Committee on Optics and Visual Physiology, 1951-52.

Joseph H. Pratt served as member, Committee on Applicants, District No. 2 of Minnesota, American College of Surgeons.

Louis E. Prickman was past president, Central Clinical Research Club.

James T. Priestley served as member, Board of Governors, American College of Surgeons, 1950-52; secretary, 1950-52, and president-elect, 1952, Central Surgical Association; vice president, The Society of Clinical Surgery; member, Committee for the United States, International Society of Urology; and associate, Editorial Staff, *Surgery, Gynecology and Obstetrics*, 1950-52.

Raymond D. Pruitt was member, Committee for Minnesota, Rhodes Scholarships, 1950-52.

David G. Pugh was associate secretary-treasurer, Alumni Association, Mayo Foundation, 1951-52.

Lawrence M. Randall was named director, 1950-52, and assistant secretary, 1951-52, American Board of Obstetrics and Gynecology; and president and member, Executive Board, Central Association of Obstetrics and Gynecology.

Roger W. Ridley was member, Program Committee, Minnesota Society of Anesthesiologists, 1951-52.

Grace M. Roth was elected secretary, Section on Circulation, American Heart Association, 1950-52; and first vice president, Minnesota Heart Association, 1950-52.

Charles W. Rucker was member, Committee on Ophthalmology, Minnesota State Medical Association, 1951-52; and associate editor, *Archives of Ophthalmology*.

Edward H. Rynearson served as president, The Endocrine Society, 1950-52; and member, Committee on Diabetes, Minnesota State Medical Association. He received the honorary degree, Doctor of Science from Ohio Wesleyan University, June 9, 1952.

Charles H. Scheifley was member, Executive Committee, Alumni Association, Medical School, University of Minnesota.

Carl F. Schlotthauer was member, Executive Board, 1950-52, and member, Committee on Fellowships, Research Council, 1950-52, American Veterinary Medical Association; member, Board of Directors, Animal Care Panel, 1951-52; and vice president and member, Board of Directors, Minnesota Society for Prevention of Cruelty (Humane Society), 1951-52.

Herbert W. Schmidt was member, Editorial Committee, Committee on Public Health Education, Minnesota State Medical Association, 1951-52.

Thomas H. Seldon served on Program Committee, The American Society of Anesthesiologists, 1951-52; as president, 1950-51, chairman, Editorial Committee, 1951-52, and chairman, Washington Liaison Committee, 1951-52, American Association of Blood Banks; member, Committee on Anesthesiology, Minnesota State Medical Association, 1951-52; and member, Judicial Committee, Minnesota Society of Anesthesiologists, 1951-52.

Kinsey M. Simonton was member, Committee on Conservation of Hearing, Minnesota State Medical Association, 1951-52. He was elected president, Rochester Figure Skating Club, 1950-52.

Charles Sheard (emeritus) received the Beverly Myers Nelson achievement award for outstanding work in optics, American Board of Opticianry, New York, 1951.

Charles H. Slocumb was named president, 1950-52, and member, Executive Committee, 1950-52, American Rheumatism Association; and member, American Committee, International League Against Rheumatism, 1951-52.

Harry L. Smith served as chairman, Medical Advisory Committee for Selective Service for Olmsted, Houston, Fillmore, and Dodge Counties, 1951-52; member, Heart Committee, Minnesota State Medical Association, 1951-52; and member, House of Delegates, Olmsted-Houston-Fillmore-Dodge County Medical Society, 1951-52.

Newton D. Smith was president-elect, 1950-52, and member, Council, 1950-52, American Proctological Society.

Randall G. Sprague served as second vice president, 1951-52, first vice president, 1952, chairman, Committee on Scientific Program, 1952, chairman, Committee on Membership Qualifications, 1951-52, member, Council, 1952, member, Executive Committee, 1952, and member, Committee on Purposes and Policies, 1951-52, American Diabetes Association; member, Editorial Board,

Diabetes, the Journal of the American Diabetes Association; member, Editorial Board, *A.D.A. Forecast*, American Diabetes Association; member, Council, 1952, and member, Editorial Board, *Journal of Laboratory and Clinical Medicine*, 1952, Central Society for Clinical Research; and member, Subcommittee on Cortisone and ACTH, Metabolism and Endocrinology Study Section, 1950-51.

Edward C. Stafne was member, Council (Midwest Councilor), American Academy of Oral Roentgenology, 1951-52; member, Board of Directors, Minnesota Dental Foundation, 1950-51; and associate editor, *Oral Surgery, Oral Medicine, and Oral Pathology*.

J. Minott Stickney was named chairman, Committee on Hospital and Professional Relations, Minnesota State Medical Association, 1951-52.

Charles F. Stroebel, Jr., was secretary and treasurer, Southern Minnesota Medical Association, 1950-52; and vice president, Olmsted-Houston-Fillmore-Dodge County Medical Society, 1951-52.

Hendrik J. Svien was named president, Congress of Neurologic Surgeons, 1951-52.

Luther Thompson served as member, Committee on Teaching, Society of American Bacteriologists, 1951-52.

Jan H. Tillisch served as chairman, Resolutions Committee, Aero Medical Association, 1951-52; member, International Air Transport Association, 1951-52; chairman, Committee on Military Affairs, 1950-52, and member, Executive Committee of the Committee on Public Health Education, 1951-52, Minnesota State Medical Association; and member, Executive Council, Airlines Medical Directors Association.

Alfred Uihlein served on Membership Committee, Academy of Neurological Surgeons, 1951-52.

Khalil G. Wakim was named member, Editorial Board, *American Journal of Physical Medicine*, 1951-52; and consultant to Army Medical Center, Walter Reed Hospital, and to Office of the Surgeon General on Basic Medical Education for the Armed Forces. He was recipient of Gold Medal (highest order of merit), Republic of Lebanon, and of Gold Medal (highest order of merit), Republic of Syria.

Waltman Walters served as chairman, Editorial Board, *Archives of Surgery*; and chairman, Editorial Board, "Lewis' Practice of Surgery." He was Moynihan lecturer, University of Leeds, England.

Charles H. Watkins was named president, 1950-51, and chairman, Membership Committee, 1951-52, Central Interurban Clinical Club.

John M. Waugh served as representative of the Surgical Section, American Medical Association on the American Board of Surgery, 1951-52; member, Editorial Board, *Cancer*; member, Editorial Board, *Surgical Abstracts*; member, Nominating Committee, Society of Clinical Surgery; member, Council, and chairman, Finance Committee, Minnesota State Medical Association.

Harry M. Weber was member, Executive Committee, Section on Radiology, 1950-51, and director, Section on Instruction, 1950-52, American Roentgen Ray Society; member, Committee on X-ray Department Planning, 1951-52, and member, Commission on Credentials, 1951-52, American College of Radiology; and member, Historical Committee, Minnesota State Medical Association, 1950-51.

Lyle A. Weed was named counselor, Minnesota Society of Clinical Pathologists, to the American Society of Clinical Pathologists, 1951-52; member, Advisory Editorial Board, *American Journal of Clinical Pathology*, 1951-52; member, Professional Education Committee, American Society of Clinical Pathologists, 1951-52; and president, Board of Public Health and Welfare, Rochester, 1952. He was awarded a Silver Medal for exhibit, American Medical Association, 1950; and a Gold Medal for exhibit, American Society of Clinical Pathologists.

James F. Weir was elected secretary, Alumni Association of the Mayo Foundation, 1951-52.

Henry L. Williams served as member of Council, Minnesota Academy of Ophthalmology and Otolaryngology; associate editor, *Transactions of Society*, member of Council, Otosclerosis Study Group, and member, various subcommittees of the Committee on Conservation of Hearing, American Academy

of Ophthalmology and Otolaryngology; editor-librarian, *Transactions*, and member, Council, American Otological Society, Inc.; and vice president, Middle Section, American Laryngological, Rhinological, and Otological Society, Inc.

Marvin M. D. Williams served as member, Physics Credentials Committee, American Board of Radiology, 1951-52; member, Subcommittee 6, Handling of Radioactive Isotopes and Fission Products, National Committee on Radiation Protection, 1951-52; and member, Council of Representatives, Argonne National Laboratory, 1950-52.

Viktor O. Wilson was member, Health Committee, Governor's Advisory Council on Children and Youth; and member, Advisory Committee on the Hospital Survey and Construction Program, Minnesota State Board of Health.

Henry W. Woltman served as member, Council, 1951-52, and president, 1950-51, American Neurological Association; member, Ethics Committee, American Academy of Neurology, 1951-52; member, Council on Neurologic Diseases and Blindness, National Institute of Public Health, 1950-52; and area consultant in neurology, Veterans Administration, 1951-52.

Earl H. Wood was member, Committee on Cardiac Catheterization, American Heart Association.

Lewis B. Woolner was awarded Gold Medal for exhibit, American Society of Clinical Pathologists; and Silver Medal for exhibit, American Medical Association, 1950.

Henry H. Young served as secretary, Committee on Post-graduate Education, American Academy of Orthopaedic Surgeons, and American Association of Orthopaedic Surgeons, 1951-52; member, and chairman, Program Committee, American Academy of Orthopaedic Surgeons, 1951-52; member, Committee on Industrial Health, Minnesota State Medical Association, 1951-52; and member, Executive Committee, Minnesota State Safety Council, 1951-52.

School of Business Administration—Francis M. Boddy was appointed member, Universities National Bureau Committee, National Bureau of Economic Research, 1950-52; director, special research project on potential tax yields, U. S. Treasury Department, 1951; member, Industrial Dispersion Committee, Minneapolis City Planning Commission, 1952.

Arthur M. Borak was named tax consultant to the Military Government of Japan, 1950-51; and consultant on Taxation for Aviation Study, Minnesota Joint Legislative Committee on Aviation Research, 1952.

Helen G. Canoyer was member, Board of Directors, National Association of Consumers.

Waite D. Durfee was engaged in research on aviation facilities for Joint Legislative Committee on Aviation Research, 1952.

George Filipetti served as member, Latin-American Area Committee, National Management Council, 1951-52; delegate to International Conference on Scientific Management, Brussels, 1951; and was engaged in an investigation of selected manufacturing plants in Belgium under auspices of International Management Council.

Richard K. Gaumnitz served as assistant field director, 1950-51, and special consultant, 1951-52, Committee for Economic Development; and member, Examining Committee, Minnesota State Civil Service Commission, 1951-52.

Walter W. Heller served as consultant (fiscal economist), Office of the Secretary, U. S. Treasury Department, 1951; member, Economic Cooperation Administration Team on Fiscal Problems of Germany, 1951; member, Board of Directors, Minnesota Institute of Governmental Research, 1950-52; adviser, Committee on Tax Education and School Finance, National Education Association; and member of following committees of the National Tax Association: Committee on Withholding, Committee on Transportation and Taxation, Committee on Tax Situs and Allocation. He received a research grant from Louis W. and Maud Hill Family Foundation for research in state income tax administration.

Herbert G. Heneman, Jr., was consultant, Community Health Service; and participated in research projects on grants from Office of Naval Research and the Social Science Research Council.

Robert J. Holloway served as consultant, Minnesota Upper Mississippi and St. Croix River Improvement Commission, 1951; consultant, Department of

Business Research and Development, State of Minnesota, 1951-52; and special consultant for aviation study, Minnesota Joint Legislative Committee on Aviation Research, 1952.

Richard L. Kozelka was elected vice president and director, Survey of Standards, 1951-52, and president, 1952, American Association of Collegiate Schools of Business. He served as member, Executive Committee, Beta Gamma Sigma, 1950-52; member, Board of Directors, National Bureau of Economic Research, 1950-52; member, Board of Directors, Joint Council on Economic Education, 1951-52; consultant, Committee for Economic Development, 1950-52; member, Education Committee, Controllers' Institute of America, 1950-52; member, Board of Directors, Minnesota Institute of Governmental Research, 1950-52; member, Commerce and Utilities Committee, Efficiency in Government Commission, 1950-51; consultant, Special Report on Unemployment Compensation Reserves, Minnesota Division of Employment and Security, 1952; member, Board of Directors, Minneapolis Chamber of Commerce, 1950-52; chairman, Research Advisory Committee, Minneapolis Community Chest and Council, 1951-52; member, Board of Directors, 1951-52, and member, Committee on Central Planning and Research, 1950-52, Hennepin County Community Chest and Council; member, Quota Advisory Committee, Minnesota Community Research Council, 1950-52; and secretary and member, Board of Directors, Minneapolis YMCA, 1951-52.

Edwin H. Lewis served as director, 1950-51, and vice president, 1951-52, Minnesota Chapter, American Marketing Association; member, Sales and Marketing Committee, Minneapolis Chamber of Commerce, 1950-52; and was recipient of a fellowship in the College-Business Exchange Program, Foundation for Economic Education, 1951.

Joseph P. McKenna engaged in special research on potential tax yields, U. S. Treasury, 1951.

Bruce D. Mudgett was consultant, U. S. Bureau of Labor Statistics, 1951-52; and was elected fellow of the American Statistical Association, 1952.

Carl L. Nelson was member, Social Accounting Committee, American Accounting Association, 1951-52.

Edmund A. Nightingale served as consultant to director, Military Traffic Service, Office of the Secretary of Defense, 1950-52; consulting transportation economist, Minnesota Iron Range Resources and Rehabilitation Commission and Minnesota Railroad and Warehouse Commission, 1950-52; member, Legislative Committee, Northwest Shippers' Advisory Board, 1950-52; member, Committee on Education and Research, Associated Traffic Clubs of America, 1950-52; and member, Panel of Examiners, American Society of Traffic and Transportation, 1950-52. He was admitted to practice, Interstate Commerce Commission, 1951.

Harry J. Ostlund was member, Committee on Cost Accounting Concepts and Standards, American Accounting Association, 1951-52.

Benjamin W. Palmer received the honorary degree, Doctor of Laws (LL.D.) from St. Thomas College, 1951.

Andreas G. Papandreou was awarded a Social Science Research Council Fellowship, 1952.

Spencer M. Smith was regional economist, Minneapolis Regional Office, Office of Price Stabilization, 1951-52.

Ben B. Sutton served as director, Business Executives Research Committee Project, Committee for Economic Development, 1951-52; and member, Investment Advisory Board, Minneapolis Teachers' Retirement Fund Association, 1952.

John G. Turnbull was consultant, U. S. Department of Labor; mediator in a number of industrial disputes, 1950-52; and adviser, Minnesota Legislative Committee on Workmen's Compensation Inquiry, 1951-52.

Arthur R. Uppgren was chairman, Committee on Interest Rate and Endowment Policy, Twentieth Century Fund, 1952; and was awarded Order of the North Star by the King of Sweden, 1952.

Roland S. Vaile served as consultant, National Research Council on study conducted by American Council on Education for Office of Naval Research, 1951-52; consultant for District Office of Price Stabilization and Civil Service Commission, 1951; member, Committee on Awards, American Marketing Asso-

ciation, 1951-52; director, research project for report to Joint Legislative Committee on Aviation, 1951-52; and consultant and director of research, Minnesota Upper Mississippi and St. Croix River Improvement Commission, 1950-52.

John T. Wheeler served as chairman, Committee on Internship Programs, American Accounting Association, 1951-52; and treasurer and director in charge of research and education, Twin City Chapter, National Association of Cost Accountants, 1951-52. He was awarded a faculty fellowship, Swift and Company Summer Program for Economists, 1951.

Dale Yoder served as consultant on research criteria, U. S. Air Force; consulting editor, *Public Personnel Review*, Civil Service Assembly of the United States and Canada; member, Governor's Commission on Aging; member, Citizens Committee on Public Education; member, Governor's Advisory Committee on Employment of the Physically Handicapped; and chairman, Labor Market Research Committee, Social Science Research Council, 1950-52.

General College—Henry Borow was member of faculty, Japanese Universities Institute for Student Personnel Services, sponsored by the Supreme Commander of the Allies in the Pacific, 1951-52; and member, Board of Trustees, Minneapolis Vocational Guidance Association, 1950-51.

Evelyn Determan was elected president, Minnesota Business Education Association, 1950-51; and member, Delta Pi Epsilon, 1951.

Geraldine B. Frise exhibited in a "one-man" show of pastels at Walker Art Center, Minneapolis, 1951.

J. Merle Harris served as president, Minnesota Geological Society, 1950-52; local chairman of Education Committee, American Geologic Institute, 1951-52; member, Conservation Committee, Minnesota Department of Education, 1951-52; and member, Planning Committee for Midwest College Conservation Education Conference, 1952.

Gerald Hill served as consultant on evaluation of humanities courses, United States Armed Forces Institute, set up by American Council on Education, 1951.

George H. McCune was named chairman, Committee on Continuing Projects in Audio-Visual Research, Stephens College Audio-Visual Aids Conference, 1952.

Horace T. Morse served as chairman, Junior College Study Committee, North Central Association of Colleges and Secondary Schools, 1950-52; chairman, Committee on Organization and Administration of General Education, Conference on General Education, sponsored by Florida State University and National Education Association, 1950; consultant for Staff Conference on General Education, Central Missouri State College, Warrensburg, 1951; consultant in social science at workshop, sponsored by American Council on Education, East Lansing, Michigan, 1951; member, 1950-51, and chairman, 1951-52, Subcommittee on Higher Education, Minnesota Commission on Vocational and Higher Education; participant and recorder, Conference on General Education, sponsored by U. S. Office of Education and the Rockefeller Foundation, Princeton, New Jersey, 1951.

Esther J. Olson served as alumnae adviser to Zeta Phi Eta, 1951-52.

Merrill P. Rassweiler was awarded a faculty fellowship by the Fund for the Advancement of Education, 1951-52.

Louis T. Safer received second award, Biennial Exhibition of Prints and Drawings, Minneapolis Institute of Arts, 1952.

Dorothy L. Sheldon served as member, Planning Committee, and recorder, High School-University Conference, 1952.

Alfred L. Vaughan was faculty member, Workshop in General Education, sponsored by California Junior Colleges and American Council on Education, 1950; and member, Science Committee, Workshop, sponsored by the American Council on Education Evaluation Study in General Education, East Lansing, Michigan, 1951.

Cornelia D. Williams was member, Committee on Attitudes Workshop, sponsored by the American Council on Education Evaluation Study in General Education, East Lansing, Michigan, 1951; program chairman for annual meeting, Psychological Association, 1951; chairman, Membership Committee,

Division of Counseling and Guidance, American Psychological Association, 1951-52; and member, Planning Committee, High School-University Conference, University of Minnesota, 1951.

Duluth Branch—Lyda C. Belthuis served as member of the Board, Minnesota Council for Social Studies, 1950-52; member, National Committee, Gamma Theta Upsilon, 1951; and chairman, Committee on Motion Pictures, National Council of Geography Teachers, 1951-52.

Carolyn E. Bock was named president, Pi Lambda Theta; secretary and president of Latin sections, Tennessee Education Association; president, Latin sections, Louisiana Education Association; and chairman, Curriculum Committee, State Office of Education. She was awarded a research project supported by the University of Minnesota and Minnesota Department of Education on foreign language teaching in Minnesota.

Eleanor P. Bonte was elected president, Board of Directors, Board of Mental Hygiene Clinic.

Thomas W. Chamberlin served as adviser for Secondary Curriculum Committee, Minnesota Department of Education.

Raymond W. Darland served as chairman, Biological Sciences Section, and vice president, Minnesota Academy of Science; and representative for State of Minnesota to "The Nature Conservancy."

Mary I. Elwell was elected president, Duluth Association of Phi Beta Kappa, 1951.

Mason G. Fenwich was delegate, Conference on Higher Education, Regional YMCA.

Ellen A. Frogner was leader of study group on creative expression, American Council on Education, 1950-52; member, Board of Directors, National Council of Teachers of English.

John B. Gerberich served as technical adviser, Entomologists, Minnesota Arrowhead Association.

Frank W. Hansen was appointed member, Committee on Professional Growth, Minnesota Psychological Association.

Howard G. Hanson gave radiological instruction, Civil Defense Organization of Duluth; and was judge of physics entries, Annual Science Congress, Minnesota Academy of Science, 1952.

Pershing B. Hofslund served as adviser, Duluth Bird Club; member, Duluth Zoo Advisory Committee; member, Policy Committee, Minnesota Ornithological Union, 1952, and editor, *The Flicker*.

Donald H. Jackson was elected president, Duluth Section, American Society of Civil Engineers, 1950; secretary, Duluth Engineers' Club, 1951; and served as member, Education Committee, Minnesota Society of Professional Engineers.

Harry C. Johnson served as chairman, Educational Committee, Duluth Youth Council; and as secretary-treasurer, Minnesota Society for the Study of Education.

Thelma L. Johnson was member, Committee of Arts for Youth Council, sponsored by Junior League.

Mark M. Keith served as judge, Westinghouse Science Talent Search, Junior Academy of Science Exhibits, Minnesota Academy of Science meeting, 1952.

Ruth Palmer served as member, Resolutions Committee, Minnesota Vocational Association; member, Registration Committee, American Vocational Association; member, Planning Committee for Revision of Minnesota State Plan for Vocational Education and Home Economics; Northeast representative, Minnesota Council on Family Life; and counselor, District 8, Minnesota Home Economics Association.

Valworth R. Plumb was contributing editor, *Journal of Experimental Education*; and book review editor, *Journal of Educational Research*.

Lewis J. Rickert served as member, Board of Directors, Duluth Curling Club; and member, Board of Directors, Duluth Optimist International.

Richard O. Sielaff served as adviser, Consumer Goods Survey, *Duluth Herald Tribune*, 1951-52; and member, State of Minnesota Business Education Committee, 1951-52.

Arthur E. Smith served as executive secretary, Minnesota Art Education Exchange; member, Board of Directors, and member, Art School Committee, Duluth Art Institute; treasurer, Coordinating Committee, Sandstone Hospital Services; and chairman, Judging Committee, St. Louis County Safety Poster Contest.

E. Ruth van Appledorn was elected president, Duluth Music Teachers' Association.

Julius F. Wolff, Jr., was member, Conservation Curriculum Committee, Minnesota Department of Education.

General Extension Division—Northrop Dawson, Jr., served on Program Acceptance Committee, National Association of Educational Broadcasters Tape Network. He received First Award, for "Minnesota Mid-Century," and Honorable Mention (with Dorothy Greenwood) for "Critically Speaking," 16th Annual Institute for Education by Radio-Television.

Betty T. Girling was recipient of First Award for "Old Tales and New," and story "Z. T. Grubney and Fall," Institute for Education by Radio and Television; and of the Special Award of Merit for "Following Conservation Trails" (a Minnesota School of the Air Series), National Association of Conservation Education and Publicity. She served as acting executive secretary, 1952, and was elected national adviser for life, 1952, Alpha Epsilon Rho; radio chairman, Minnesota Council of Catholic Women; judge, Radio Script Division, National Scholastic Contest, 1952; judge, Essay Contest, Local Division, 1951, Regional Division, 1952, Veterans of Foreign Wars; coordinator and judge, Intermediate In-School Division, National Exhibition of Educational Recordings, 1952; and vice president, Pi Chapter (alumnae), Zeta Phi Eta.

Dorothy Greenwood received Honorable Mention (with Northrop Dawson, Jr.) for "Critically Speaking," a series classified as "Radio and Television Commentaries," Institute for Education by Radio and Television, 1952.

F. Lloyd Hansen was named member, Correspondence Study Committee, National University Extension Association 1951-52; and member, National Joint Committee on Mortuary Education, 1951-52.

Norman W. Johnson was member, Committee on Institutes and Conferences, National University Extension Association, 1950-52.

Clarence C. Ludwig served as member, Home Rule Committee, American Municipal Association; member, National Committee on Governmental Accounting; member, Governor's Committee on Waters; member, Governor's Committee on Youth and Children; member, State Advisory Council on Defense; and member, Board of Directors, American Council for the Community, New York.

Julius M. Nolte was elected president, National University Extension Association, 1950-51. He served as member, Executive Committee, National University Extension Association, 1951-52; member, Committee on Legal Institutes, Minnesota State Bar Association, 1950-52; member, Committee on Legal Institutes, Hennepin County Bar Association, 1951-52; chairman, Council of National Associations, 1951, and presiding officer, Founding Assembly, Adult Education Association, 1951; member, Sewer and Water Operators, State Examining Board, 1951-52; member, U. S. National Commission for UNESCO, 1951-52; and member, Executive Committee, League of Minnesota Municipalities, 1950-52.

Burton Paulu served as secretary and publications editor, 1950-51, member, Board of Directors and Executive Committee, chairman, Tape Network Acceptance Committee, and chairman, Convention Committee, National Association of Educational Broadcasters; and chairman, Radio Committee, National University Extension Association. He was supervisor of Fund for Adult Education Experimental Project, Iowa State College, Ames.

William C. Rogers was member, Community Organization Committee, National University Extension Association; and member, Commission on International Understanding and World Peace, Minneapolis Public Schools. He has received a special research grant from the Carnegie Endowment for International Peace for handbook on community education in world affairs.

Barbara J. Stuhler was member, Board of Directors, Minnesota League of Women Voters; editor, Bulletin of the Minnesota Council for Adult Edu-

cation; member, Council, 1950-51, and member, Council of the Minnesota Chapter, 1950-51, American Society for Public Administration.

Erwin C. Welke served as editor, Audio-Visual page, *Minnesota Journal of Education*; member, Audio-Visual Aids Committee, National University Extension Association; member, Minnesota Community Council Committee, Minnesota Film Council of America; and as coordinator, Film Information Center, State Film Council of America.

Reynold M. Wik received the Albert J. Beveridge award, American Historical Association, 1950.

THE WORK OF THE UNIVERSITY

Colleges and Schools

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

Instructional Load—Enrollment continued to decline in proportion to the all-University decline in enrollment. As a result of the decreased enrollment and budgetary limitations of the past two years the staff of the College, both academic and civil service, has been substantially reduced. In terms of full-time equivalents the figures for the biennium 1948-50 and the current one are as follows: 1948-49, 425 staff members; 1949-50, 425 staff members; 1950-51, 417 staff members; 1951-52, 379 staff members.

The bulk of the retrenchment in staff has been effected at the lower faculty ranks, those of teaching assistant and instructor. As a result the College will face serious problems in recruitment for the coming years when the upswing in enrollment begins again. The elimination of many teaching assistant positions means that the supply of qualified personnel that will be available in the years ahead will be substantially less and even normal replacements of staff members who have resigned or retired will be more difficult.

The number of student credit hours per staff member commonly used as a measure of the teaching load has declined successively over the past four years. In 1948-49 the average number of student credit hours per staff member was 322. Corresponding figures for the following years were: 1949-50, 297; 1950-51, 269; 1951-52, 259.

These figures, however, require some analysis, for the size of classes has not decreased proportionately throughout the College. Actually the greatest decrease in the size of classes has been in advanced courses, those at the Senior College and graduate level. The size of Junior College classes has been higher than is desirable for successful educational practice. Indeed many departments such as English, general studies, languages—concerned substantially with the teaching of underclassmen—because of the reduced staff have actually increased their class size beyond figures that are educationally desirable.

Need for Development—The results of the budget retrenchment of the past two years have been serious for the College of Science, Literature, and the Arts. Many faculty members who have resigned or retired and who have been outstanding experts in their particular areas have not been replaced, with a resultant loss in the extent and quality of curricular and research activities. Not only has there been no development of additional areas of study and teaching but also the extent and variety of instruction offered by the college has decreased.

As was pointed out in the biennial report for the College for 1948-50, the College must continually take into account the continued expansion of knowledge and the need for a great university to recognize this in its teaching and research program. Such expansion of fields and subjects does not replace existing subjects but represents additions to them and the modern university must recognize and provide for new courses if it is to serve its community well. Because the past two years have resulted in no such developments and, indeed, in some losses, the years ahead will be critical ones if the university is to retain its eminence as a great institution.

Interdepartmental Programs—The program in American Studies at the University of Minnesota now has established itself as one of the University's significant offerings and one to which attention is directed from all over the country. Attempting as it does to integrate various traditional subject fields in a broad program of study, the American Studies program has been most successful in giving its majors and graduate students a broad picture of American life, history, literature, sociology, art, etc. It has proved to be a most attractive major specialty for persons preparing for academic teaching and other professions and its graduates are widely sought.

One new addition to the program in International Relations and Area Studies was the introduction of a sequence in training for intelligence work.

This, added to the existing area studies program—general international major, preparation for the foreign service, foreign trade sequence, and the foreign area studies programs in Scandinavian, Western Europe, Central Europe, Russia, East and South Asia, Latin America—provided a wide variety of curricular offerings adapted to today's needs for persons with broad area backgrounds. The Center for International Relations and Area Studies, wherein much of the support of these programs lies, continued its constructive activities. It provided library materials, arranged for conferences and meetings, carried on analyses of foreign area programs in leading American universities, and made a survey of employment opportunities for students trained in international relations and area studies.

The Carnegie Corporation's grant for the program in Scandinavian Area Studies ended June 30, 1952. The results of this program are now being analyzed and studied with a view to incorporating the best of the program in the University's offerings for the years ahead.

The Department of General Studies, another of the formally organized interdepartmental programs, continued its growth and development during the biennium. Despite the drop in enrollment of freshmen and sophomores, enrollment in the General Studies courses held up remarkably well indicating acceptance of this program by students and their faculty advisers and a growing popularity of many of its courses. Several changes in staff represented consolidation of gains already made and furtherance of plans for future development.

Though the above represent formal interdepartmental organization of course programs, the biennium marked other instances of departmental cooperation and cutting across of existing departmental lines. The "liberal arts major" continued to attract many students for whom single department majors were not the best programs, and cooperation between departments in the conduct of classes, the teaching of various courses, and the planning of program sequences indicates a healthy realization of the desirability of adapting course programs to student needs. As an example, during the year a special committee studied carefully the suggested sequence of courses for students preparing for entrance into theological seminaries. A new program proposed for adoption next year was the result. This program representing cooperation by the departments of English, Classics, Philosophy, and others is but one of many similar instances that could be cited.

In the report for 1948-50 it was suggested that major college appointments be made for the three divisions within the College: natural science, social sciences, and the humanities. Whether or not formal organization of this sort is the desirable next step remains to be studied more carefully, but there is certainly widespread evidence in this University to indicate that departmental boundaries are less and less a barrier to constructive cooperation and educational planning.

Research—The College of Science, Literature, and the Arts, though often thought of solely as a teaching agency, has extensive research activities as pointed out in the 1948-50 report. These activities continued and were increased during the current biennium. For example, grants from governmental and nongovernmental sources for the year 1950-51 totaled \$775,522. Although exact figures for the second year of the biennium are not yet available, the amount would be even greater. While many of the contracts were in the fields of natural and physical sciences, several important projects were in the humanities and the social sciences.

The importance of research in the College is highlighted by the recent report of the Committee on Educational Research dealing with faculty activities. In that report it appeared that close to 15 per cent of the time of faculty members in the College is devoted to research. It is interesting to note also that approximately 40 per cent of the research activities engaged in by members of this faculty is classed as "personal sponsorship"—not supported or financed by direct University or non-University sources.

The report of the Laboratory for Research in Social Relations highlights in many respects the nature of research activities in the College. Supported in part by the budget of the College and in part by funds from foundations and other organizations, the Laboratory has enlisted staff members from vari-

ous University departments in studying various problems of human and social relations. Studies in population migration, group dynamics, and other areas have utilized the cooperation of staff in psychology, education, sociology, and political science. The Laboratory, though a relatively new agency in the College, has demonstrated its place in the College's research program.

The Rockefeller Foundation, in 1946, made available to this University a substantial sum of money for a research project on intergovernmental relations. This study (for which all the field work and other research has been completed and six resulting monographs published through the University of Minnesota Press) will, it is hoped, throw considerable new light on the federal system of the United States with special reference to the relations between national, state, and local governments.

Curricular Changes—Revision and modification, rather than any substantial overhauling or major upheaval, are the chief characteristics of the College's curricular changes during the biennium. Retrenchment, bringing with it reductions in staff, has of necessity resulted in increased attention to curricular offerings. While new courses have of course been proposed and offered, the number has not been great and has been accompanied in most instances by cancellation of previously offered courses or plans to offer specialized courses only in alternate years. Considerable attention, particularly during the year 1951-52, has been given to study of various courses and curricula in the College by the divisional councils (humanities, social sciences, natural sciences), with the result that more extensive curricular study will be undertaken in the year ahead.

Personnel Services—Moving the College offices to Johnston Hall probably benefited the student personnel program more than any other phase of College activity. Not only are there now adequate facilities for the counselors (with adequate privacy and good intra-office communication systems in place of portable partitions in large classrooms and public offices), but also the various personnel offices are arranged for easy referral from one to the other and for easy consultation among the student personnel workers of the College. Central record keeping and easy flow of records from one office to another are also possible.

The student personnel workers in the College offices have done much during the last two years to integrate their work more closely with that of faculty advisers and instructors. Copies of letters to students and of interview notes have been sent to advisers or instructors regularly, and members of the faculty are usually consulted before any important action is taken concerning any student. All this is in contrast to the more rushed work that was forced upon us in the bulging enrollments of the immediate postwar period.

In addition, the appointment of a new committee and the reorganization of two other committees have been directed at closer faculty and student participation in the student personnel program of the College. The Student Personnel Council, one of the four basic divisional councils in the College, has had students added to its membership. The Students' Work Committee, renamed the Committee on Student Scholastic Standing, has had five advisory members added to it—three from the faculty and two from the student body.

Every attempt has been made to keep more adequate records on the student personnel services of the College, in order that we could account to ourselves and to others for our efforts in this area.

There has been a slow but steady increase in the activities of the placement service during the past year. A Faculty Placement Committee has been appointed by the dean; the service to students has been expanded to include group placement meetings for the purpose of providing guidance in job-seeking; a number of companies have been added to the list of those who seek graduates with a liberal arts background.

We hope to build up our contacts with interested employers now, when it is difficult for them to obtain sufficient help, so as to be of greater aid to our graduates in less favorable times. Registration for the service is voluntary.

An SLA Day, corresponding to Engineers' Day and Education Day, was instituted on the recommendation of the Student Intermediary Board. The primary purpose was to provide opportunities for students and faculty in the College to become better acquainted. The program included a student-faculty

football game, a student variety show, departmental seminars, a general coffee hour, and a dance.

Administrative Organization—Dean T. R. McConnell resigned in 1950 to become chancellor of the University of Buffalo. Assistant Dean J. W. Buchta served as acting dean for the year 1950-51. On July 1, 1951, E. W. McDiarmid, University librarian, became dean of the College.

The completion of Johnston and Ford halls represented substantial improvement for the College. The social science departments of the College were installed in Ford Hall and in 1951 the administrative offices of the college were moved to the new quarters in Johnston Hall. The offices of the dean and assistant dean, the Senior College, the Junior College, the tally office, the placement office, and the counselors were thus located on one floor of the new Arts College classroom building, Johnston Hall, increasing the convenience and efficiency of registration procedures for both students and staff. Upon the completion of the two buildings the University sponsored a three-day symposium for their dedication. "The Individual and Liberal Education" was the theme of the Johnston Hall dedication and "The Social Sciences at Mid-Century" that of Ford Hall.

Public Administration Center—Graduate training in preparation for careers in the public service is still the primary activity of the Public Administration Center. Fourteen students were enrolled in 1950-51 and 12 in 1951-52. Since the program was established in 1936, enrollment has been 192 men and women.

The graduates of the training program have a strong sense of group identification and have organized periodic alumni meetings in Washington, D.C., California, and the Twin Cities. A survey of 178 alumni records including graduates of all classes from 1936-37 through 1950-51 reveals that 104 are in government service at the local, state, national, or international levels, 22 are in education, 15 in business, 8 in quasi-governmental work, 6 in the military service, and 23 in miscellaneous employment (including 16 housewives).

Three new courses in public administration were offered in the General Extension Division during the biennium. Plans are under way to develop a program of study leading to an extension certificate in public administration which will have a potential appeal to several thousand government employees in the Twin Cities area.

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. Several minor research projects were completed, including a study of special civil service examining committees.

The joint reference library in public administration materials—one of the best of its kind in the country—continues to serve public officials in the Twin Cities area as well as the University community. And the Center continues to serve 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.

One of the Center's staff members, on leave for six months, 1951-52, served as consultant to the Public Administration Clearing House in Chicago and advised Japanese local government organizations on public administration matters. The director of the Center served on numerous committees and boards dealing with matters relating to the field of public administration.

The major need of the Center continues to be for fellowship funds. Numerous competing programs of graduate study in public administration offer attractive fellowships to prospective students. The need for liberal financial grants is particularly critical in the field of in-service training for government employees.—LLOYD M. SHORT, *director*.

School of Journalism—Distinctive developments in the program and work of the School of Journalism in the current biennium have included a highly successful placement of alumni in journalistic positions; an enrichment and broadening of the School program in communications study and research; the inauguration of the doctor of philosophy degree in journalism; and noteworthy extension of the activities of the School's Research Division.

The School has had greater demand from the communications agencies for graduates than it has been able to meet. This situation is not new. News-

papers, advertisers, various types of magazine enterprises, radio and television stations, communications research, and journalism teaching have asked for journalism graduates in numbers greater than the School has been able to supply. A careful analysis of the 1951 graduates showed that almost exactly half took positions in Minnesota and half went to twenty other states and territories.

In addition to the "new" graduates who have found professional employment, a large number of older graduates have moved to new responsibilities. The School has been repeatedly gratified to find its alumni reaching "top level" places in all areas of modern communications, and to have had a hand in aiding some of them in such advances.

In research, the School of Journalism completed a total of 61 reports and publications. Research was contributed through individual projects of staff members and through the organized cooperative work of the School's Research Division. Important studies were undertaken under grants from the Minneapolis *Star* and *Tribune*, the Office of Naval Research, General Mills, Inc., the Graduate School of the University, and other sources. Since the Research Division was created in 1944, approximately \$165,000 has been assigned as a research backlog to the School. A sizable share of this sum went to both basic and applied research in the current biennium.

The extension of the School's curriculum into graduate courses, the skills gained through research, and the generous cooperation of other University departments made possible the establishment of the new doctoral degree. Candidates for the doctorate were accepted in 1952. Requirements for the degree were approved by the dean and the Executive Committee of the Graduate School.

The Thomas Heggen Memorial Library, established in honor of the late Thomas Heggen, distinguished 1941 alumnus of the School of Journalism and author of *Mister Roberts*, was installed in William J. Murphy Hall and now serves both faculty and student body. Created originally by generous gifts from Mr. and Mrs. Heggen, parents of the Minnesota author and playwright, from Joshua Logan, co-author with Heggen of the stage version of *Mister Roberts*, from two benefit performances of the play in Minneapolis, and from Sigma Delta Chi, the professional journalism society on the campus, the Library has recently welcomed gifts from journalism alumni generally.

A recent scholarship granted to the School was a \$500 grant from the Minnesota Press Women. The first award was made to Joan Larson of Robbinsdale, Minnesota.

Important in the work of the School of Journalism is its service to the communications media in state and region. As part of this service, the staff has again brought to the campus, as in the past, publishers, editors, press association workers, radio newsmen, industrial editors, and other men and women experienced in communications occupations to exchange their experience and knowledge.

During the biennium, the School sponsored one or two conferences for each of seven major groups: the Editors' Short Course for weekly editors (held in cooperation with the University's Department of Agriculture); the News Executives' Conference for editors, managing editors, and news editors of daily newspapers in the Upper Midwest; the Northwest Industrial Editors Conference; the Radio News Short Course, which attracted radio and television newsmen from six states; the National Association of Journalism Directors in Secondary Schools; and the Minnesota High School Press Association. The seventh meeting, a seminar for the clinical study of techniques useful to editors of cooperative newspapers, held for the first time in March, 1952, attracted nation-wide representation.

The consulting service of the School has been extensive throughout the biennium. This service falls on three levels: state, regional, and national. It ranges all the way from counsel on modernizing and streamlining the typography of the printed media to problems of freedom, newspaper law, the economics of publishing (including advertising), and the provision of information on readership, readability, newspaper cost accounting, attitude and opinion research, public opinion polling, and so on.

The School has given consulting service from 1950 to 1952 to the Minnesota Editorial Association through the organization's research committee.

The Newspaper Guild of the Twin Cities—School of Journalism Memorial Lecture was given in 1951 by Elmer Davis, the distinguished news commentator of the American Broadcasting Company. The 1950 lecture was given by Reinhold Niebuhr of Union Theological Seminary.

Honors came to several members of the School faculty during the biennium. These are set forth elsewhere in this volume in the section entitled "Honors and Distinctions." It might be noted, however, that when a collection of significant examples of the typographic arts was presented to the University of Minnesota by Frank P. Leslie, president of the John Leslie Paper Company, Minneapolis, the gift was made in appreciation of the service of two journalism staff members.

A summer field appointment in 1952 to enable a faculty member to visit publishing plants and the owners, editors, and staff members of weekly papers and nonmetropolitan dailies has proved its two-way value. The faculty man has served as a consultant on newspaper problems and has refreshed his own knowledge of publishing problems.

The School, through the President and Board of Regents, presented the annual Minnesota Award for Distinguished Service in Journalism to Linwood I. Noyes, publisher of the Ironwood (Mich.) *Globe* and past president of the Inland Daily Press Association and the American Newspaper Publishers Association.—RALPH D. CASEY, *director*.

School of Social Work—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. As individuals, groups, and communities seek to define goals and seek social and material equilibrium in the problem-solving continuum which is life for them, social work is a professional service in the area of human personal, social, and economic relationships designed to assist in the adjustment processes coincident to their search for equilibrium.

The School had its beginning in 1917, and the present designation, School of Social Work, was approved by the Regents in 1942. Five years later the Regents authorized the professional degree of Master of Social Work for those satisfactorily completing the two-year graduate sequence. 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.

The School, for more than a decade, has been one of the largest units in the Graduate School and, during the last six years, has become one of the ten largest schools of its kind in the country. Its faculty has been recognized as including some of the outstanding leaders in the various social work specialties in the country. The director of the School served as national president of the American Association of Schools of Social Work (1949 to 1951) and is currently the national chairman of the Accrediting Commission of the National Council on Social Work Education.

Since the establishment of the course on Social and Civic Work in 1917 until the end of the academic year 1951-52, approximately 1,200 students have completed the undergraduate work offered as professional or preprofessional leading to the Bachelor's degree. Since 1917 approximately 1,600 students from this and other universities have entered upon professional education at the graduate level, and 381 Master's degrees and 2 Ph.D. degrees have been conferred. Ninety-two of these graduate degrees were conferred during the 1950-52 biennium. Former students of the School are to be found in professional leadership positions in social welfare practice and teaching throughout the country—with some in foreign lands.

Each year the School admits approximately 50 new graduate students from a group of approximately 200 applicants. There are, therefore, approximately 100 full-time graduate students in residence at any one time working for Master's and Doctor's degrees. In addition, there may be as many as 30 or 40 part-time graduate students.

The School has developed a close working relationship with public and private social welfare agencies of Minnesota. A selected number of these agencies are used as clinical internship field work placements for graduate

students in fulfilling the field work requirements. Also, the faculty renders a continuous service to the community over and above the responsibilities of teaching and supervising graduate students. These services include technical consultation to social agencies on social work problems; conduct of research; serving on agency boards and committees; consultative services to civil service and merit system agencies and the like. The faculty also serves in leadership capacities in professional associations in its field and plays a prominent part in state, regional, and national conferences.—JOHN C. KIDNEIGH, *director*.

The University Gallery—The aim of the Gallery is to insure that all who use its collections and view its exhibitions may think of art and of the artifacts of man not only as part of the social and cultural history but also as a part of their daily lives, so that those lives may become fuller and more spiritually satisfying.

Special gallery talks have been given whenever requested if the group was large enough. Regular gallery tours and informal talks would require a larger staff. However, the needs of numerous groups have been met, and as far as possible the gallery has been opened evenings for special groups. We make loans from our growing collections to schools, colleges, and individuals. Probably our main function as a unit of the Department of Art is to supply exhibitions for actual class use and provide material which the staff uses in developing a high level of appreciation in the student through familiarity and study.

The concept of museums, the methods of teaching art, and the attitudes toward art have changed completely since World War I. Our nineteenth-century patterns were deliberate and unhurried; speed is today's yardstick. Therefore, what is presented must meet the demands of rapid appraisal, coupled with maximum interest.

Education in art must cover a wide area, and be as varied as individuals. Each person learns according to his background and experience. Thus our program must be diversified. Our limited staff makes it impossible to organize, design, and prepare every exhibition which we offer. Consequently we must take advantage of some traveling exhibitions. They are brought because they are topical and of use in a particular art program. Normally they run for a three-week period.

The exhibitions we design and organize are the ones which give us standing among similar institutions and assist us, in turn, in borrowing from them. Such exhibits must possess imagination, depth and penetration of the subject, must make a contribution to the subject, and, of primary importance, must be tailor-made to fit our particular need at the time. Unfortunately, we are unable to catalog all of our exhibits because of budget limitations.

Members of our staff have served on a number of committees and functioned with organizations on and off the campus. And each has given generously of his time and energy.

The Gallery has an advisory committee, appointed each year by the chairman of the Department of Art, to serve as a steering body to coordinate the Gallery program with that of the Department of Art. Its assistance has been invaluable.

Twelve catalogs—some prepared by the Gallery, some by others—were used by the Gallery in conjunction with the exhibitions. They are as follows:

1950-51

German Expressionism
First National Print Competition
Cameron Booth
Tweed Collection
Art Buildings (blueprint)
Seong Moy

1951-52

40 American Painters
34 American Craftsmen
Bernard Arnest
Print Invitational
Jerry Liebling Photography
Jo Rollins

Loan exhibitions are the essence of an active art gallery program. Larger museums, on the other hand, depend primarily on the breadth and quality of their permanent collections. However, our permanent collections have grown extensively during the biennium because of the generosity of our friends, Mrs. George P. Tweed and Mr. and Mrs. Hudson D. Walker. The Tweed collection of nineteenth-century paintings was given to the Duluth Branch. Another largess came to us from the Hudson Walker collection from which about 1,000 items were put on indefinite loan to the Gallery in 1950.

At one time, aided by WPA workers, we circulated material on a nation-wide scale. This is no longer possible. However, through the Walkers' generosity, we are circulating widely throughout the country, during a three-year period, a selection of their Marsden Hartley paintings and drawings. This exhibition, together with the University Press catalog, will bring added prestige to the University of Minnesota.

In 1950-51 the Gallery's exhibition program was varied—displaying 25 exhibitions of painting, sculpture, architecture, and the so-called minor arts. A few of these were special exhibitions put on for specific groups, but most followed the fine arts teaching program. In 1951-52 there were 20 exhibitions. Our advisory committee had urged that we arrange fewer exhibitions and hold them for longer periods. Thus more exhibitions were Gallery-organized and -collected.

An inventory values our collections at \$193,159.54. Total campus loans for the biennium were 2,587; total outside loans (schools, colleges, universities, and other museums), 6,911.

The space in the east and west corridors has been taken over for study exhibitions for the departments of art, English, and humanities. For these departments, approximately 100 exhibits have been installed and 8,000 mounts put on reserve in the Art Library during the biennium. In addition, between 4,500 and 5,000 mounts have been loaned annually to individuals in other institutions.

In 1951-52 our largest single gift (320 items) came from Mr. and Mrs. Hudson D. Walker. Another generous gift was provided in 1950-51 by Mr. and Mrs. John Rood. In the first year the \$1,000 set up through the Rood gift was used to assist in paying for the 40 *American Painters* and 34 *American Craftsmen* catalog. The next year proceeds of the fund were used to increase the sculpture collection through the purchase of outstanding examples of contemporary sculpture. In 1950-51 we also received a cartograph by Robert Collins from the Ford Company; a portrait of George Tweed given by Mrs. Tweed; *Portrait of Daniel Webster* from the Snyder estate; *Fleet Admiral Chester Nimitz*, reproduction, from the Navy Department; and 9 prints (reproductions) from Harriet Spalding. The next year we received student work from the student show; and a mural by Robert Motherwell from Katherine Ordway.

The Fine Arts Fund is growing slowly through accrued interest. In 1950-51 we used the interest on the fund, \$158.71, to assist us in purchasing a painting by Cameron Booth. At the present time the fund totals \$5,607.78. Other income is listed in the following tabulation:

	1950-51	1951-52	Totals-Biennial
Student framed prints: rentals and fines	\$260.43	\$307.49	\$567.92
Catalog sales	10.75	108.35	119.10
Totals	\$271.18	\$415.84	\$687.02

Without the sustaining evidence of trust and faith in the Gallery's activities and without the sympathetic support we have had from the University, little would have been accomplished. From the very beginning, the devotion of the staff, their faithful service, their energetic efforts to further the Gallery's interests and utilize its resources have been most gratifying.

Attention should be called to the Gallery's two most pressing needs. First and foremost is a new building. Today our equipment, materials, storerooms, workrooms, shop, and offices are spread on all four floor levels of Northrop Auditorium. This limits use of the Gallery to those willing to climb four long flights of stairs. The Gallery should be open and have lectures over weekends as does the Museum of Natural History. The second need is a purchase fund for study materials and originals. Without this our originals collection will probably never grow, except through gifts. Furthermore, purchases are vital to a collection because they can add what is needed—something which gifts seldom achieve by themselves. A few purchases each year would result eventually in a fine collection worthy of a university such as ours.—RUTH E. LAWRENCE, *director*.

Center for International Relations and Area Studies—The work of the Center is now conducted by a half-time research fellow and a full-time sec-

retary under supervision of a faculty member who undertakes the responsibilities of director as an additional duty. A more effective program of research and of services to the academic programs in these areas could be conducted by the addition of two or more research fellows or assistants trained in area studies. At present the maintenance of the library and the bulk of the clerical-stenographic work fall upon the secretary; the planning of programs and conferences, information services, and research projects upon the research fellow.

A specialized collection of periodical and pamphlet materials on current international relations has been developed for the use of students and staff. Although some \$300 annually is available for purchase of essential reference works and periodicals, the bulk of the collection is obtained gratuitously. It consists of documentary and information materials of U. S. Government agencies, the United Nations, and foreign governments. Leading articles in periodicals are indexed and pamphlet materials are filed topically. A New York Times clipping service is maintained. During the biennium approximately 5,000 persons have used materials on the premises or requested information from the staff. About 250 persons have checked out materials for outside use in each six-month period.

The Center frequently assists student, and occasionally outside, organizations in obtaining speakers upon international topics. Several representatives of government agencies in the foreign affairs field have been brought to the campus to discuss their personnel requirements. Office facilities have been provided for SPAN. Several intercollegiate conferences have been arranged, including the important Carnegie Endowment Conference on Universities and World Affairs, April 18-20, 1952, at which representatives of forty-five colleges and universities of the Northwest area considered the nature and objects of university training in international relations.

The Center has provided 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 training. The director of the Center served as director and the research fellow as secretary of the Interdepartmental Committee on International Relations and Area Studies.

In 1950 the Center issued a modest mimeographed survey of *Employment Opportunities for Students Trained in International Relations and Area Studies*, which has been in such demand as to suggest the need for a more ambitious program of employment assistance to graduates. Most of the research conducted by the Center has been in connection with the development of programs in area studies. An extensive mimeographed *Compilation of Foreign Area Programs* (1950) in leading American universities was prepared for the Social Science Research Council. This material, with additional reports made by these universities to the Council in 1951, was utilized in the printed survey and evaluation, *Area Studies in American Universities*. The comprehensive report made to the Council in 1951 by this University was prepared by the director of the Center. This information was requested by the Council primarily for government agencies which were considering a subsidized program of area training in universities. A brief analysis of the problem of *Integration in Area Studies and International Relations* was prepared in 1951 for the consideration of the Interdepartmental Committee. During the last six months the research fellow has been interviewing faculty members in all departments which contribute to the area study programs in order to obtain an evaluation of the relative resources which the University has in the several areas, and the comparative costs of expansion. The results of this survey are now being compiled, but some preliminary data were considered by the Interdepartmental Committee in planning a proposed Institute of European Studies and a similar integration of Asian studies. The Center has agreed to prepare next year for the Carnegie Endowment for International Peace a more elaborate appraisal of the University's entire program in international relations, including general, professional, and adult education, student activities, and the handling of foreign students.—CHARLES H. McLAUGHLIN, director.

Intergovernmental Relations Research Project—In 1946 the Rockefeller Foundation made available a substantial sum of money for a research project

on the Intergovernmental Relations of Minnesota. The work got under way that year under the direction of Professor William Anderson and an assistant director, Edward W. Weidner. A number of graduate students were employed for half-time work during that year and subsequent years down to 1952. The study was to have been completed in five years, 1946-1951, and practically all the field work and other research was fully completed. Publication of the resultant monographs began in 1950, and as of July, 1952, six of them had been published through the University of Minnesota Press. The announced list of monographs includes four others, and these, with some variation in titles, are expected to be published by late 1953 or the early part of 1954. The concluding volumes will contain a short account of the research methods employed and a summary of the general results. It is hoped that these concluding volumes will throw considerable new light on the federal system of the United States, with special reference to the relations between national, state, and local governments.—WILLIAM ANDERSON, *director*.

Laboratory for Research in Social Relations—From its informal beginnings in the spring of 1948, the Laboratory has now had four full years of experience as a special research unit of the College of Science, Literature, and the Arts, with support from the College, the Graduate School, and the Carnegie Corporation. Its senior staff has been drawn from the departments of psychology, sociology, political science, child welfare, economics, and education.

Its studies include: the determinants and correlates of political participation and awareness of adults in the Twin Cities area; the development of patterns of ethnic prejudice in urban elementary school children; parent-child relations in urban and rural areas as these relations function in the development of maturity and responsibility in children; responsibility and loyalty of sub-groups to the standards of more inclusive groups; an ecological study of voluntary associations and groups in the Minneapolis area, with special reference to conflict of leadership roles among the same individuals serving as leaders in more than one group; patterns of stratification in Minneapolis as compared to patterns allegedly existing in smaller communities; field studies and laboratory studies of small groups at both the descriptive and experimental levels in an effort to isolate forces at work in determining the behavior of groups.

These studies, under way or completed, shape the direction of the future work of the Laboratory. Although further Carnegie support has not eventuated, a new Ford Foundation grant and a new Graduate School research grant, together with the present College support, assure its continuation.

At least seventeen articles prepared by the senior staff have been published or accepted for publication in various technical journals; another twelve to fourteen articles are in various stages of manuscript preparation.—JOHN G. DARLEY, *executive secretary*.

A Look Ahead—The 1950-52 biennium was a period of much study and analysis of the work of the College, representing a healthy educational ferment among faculty and staff. These discussions culminated in the appointment of five committees whose work in the years ahead will undoubtedly prove of great value in studying and appraising the work of the College and laying plans for even greater service in the future. These committees are: Curriculum Committee, Committee on Fundamental English Instruction, Committee on Placement, Committee on Improvement of Instruction, and the Committee on Language Instruction.

These committees, as will be noted, focus essentially on the teaching and instructional activities. This aspect of the work continues to be an area of grave concern to all who have a deep devotion to the College's fundamental obligation to educate the youth of the state and the nation. To accomplish these objectives, substantial salary improvement is urgent to enable the College to obtain and hold the most highly qualified instructors possible. An equally important problem, one to which some consideration has been given and greater consideration will be given, is the need of increasing faculty participation in all of the activities of the College and the University. As one tangible step in this direction the College, under Assistant Dean J. W. Buchta,

established a faculty newsletter which was continued in 1951-52 as *S.L.A. News*.

In the improvement of instruction the biennium 1950-52 represented a period of planning. One tangible result, however, may be noted in plans for its first Workshop on College Teaching, September 22-26, 1952.

Research is another area in which the College must provide leadership for the state and the nation. The College must have on its faculty persons qualified to conduct and direct research in the ever advancing frontiers of knowledge. And continued attention to and support of this objective must be an important part of the University's support of the College.

Public service has always been a vital part of the program. This is attested to by such reports as those of the University Gallery, the School of Journalism, and the Public Administration Center. But all departments of the College engage in such activities and are ever alert to new opportunities. To describe them all would require more space than is available. One example that might be mentioned is a proposed "Institute of Family Living" at present under discussion in the Department of General Studies and to be discussed also with such departments as the Institute of Child Welfare, the College of Education, and the School of Social Work. Such an institute would be aimed at coordinating efforts in the area of family living by giving attention to the teaching of undergraduates, training of professional workers, community service, and research.

Finally the University and the College must be alert in the rapid expansion of knowledge to see that the faculty is representative of the newest developments and that through a competent and well-trained staff the College continues its outstanding service and leadership to the people of the state of Minnesota.—ERRETT W. McDIARMID, *dean*.

INSTITUTE OF TECHNOLOGY

Enrollment—In the previous report it was predicted that the enrollment in the Institute had probably reached its lowest point in the fall of 1950. While the enrollment actually fell the following year, freshman enrollment stabilized and was the same in 1951-52 as in 1950-51, and is expected to increase 40 per cent in the fall of 1952. This increase is expected to continue.

Faculty—During the period of decreased enrollment there was a vigorous realignment of staff. At the end of the previous biennium one-half of all staff members were instructors. In the period of decreased enrollment and in consonance with the University retrenchment policies at that time, reductions were made in the number of instructors so that now the distribution among the four ranks approximates equality:

	Percentages by Ranks	
	1949-50	1951-52
Professors	18	28
Associate Professors	11	19
Assistant Professors	21	27
Instructors	50	26

Reduction in the number of instructors has been accomplished by maintaining the levels in other ranks during a decrease of total staff and maintaining or increasing the number of teaching and research assistants. The present distribution is more nearly that found in other high caliber technological schools.

Five-Year Program—The five-year program in the Institute is now in complete operation. Students who show a high enough performance for admission to the Graduate School at the end of their fourth year and who plan to enter the Graduate School are permitted to petition for the bachelor of science degree undesignated at that time. Thus the total period of study for a graduate student is not unduly extended. The five-year program is gaining acceptance both within the Institute and with industry.

Basic Two Years of Engineering Preparation—The faculty of the College of Engineering has been able to work out a common first two years, with no professional specialties offered in these years. These common subjects can be

offered in smaller liberal arts colleges and junior colleges in this and other states, thus increasing the opportunity for students from these colleges to transfer into engineering at the end of the sophomore year without loss of time.

Technical Aid—The new technical aid program, initiated in the fall quarter of 1949, soon will admit its fourth class. Two classes have graduated. Experience shows that the program meets a real need. Of 120 students registered in the two years, half have graduated and all but two of this number were placed with Minnesota industries. Local industries have made most favorable comments on their work.

Work-Study Program—The work-study program, which started with the first industrial work assignments in the summer quarter of 1950, is now well under way. Twenty-eight students were in the first group. And all 10 companies, initially invited to participate, accepted. The total number of cooperating companies is now 15. Twenty-four students took part in the program in 1951, and 36 in 1952. There are now 78 students enrolled. It now appears fair to state that the work-study experiment has demonstrated its place as a permanent part of our pattern of education in engineering.

Professional Engineer Degree—The professional engineer degree, which by Regents' action in 1950 came under the Institute of Technology, has now been awarded to 5 engineers.

Graduate and Research Work—Most notable during the biennium is the continued increase of graduate and research work. In the four-year period from 1948-1952 the College of Engineering granted almost three times as many doctorates in engineering as in the thirty-six years preceding. In the other divisions of the Institute the graduate work has increased or been maintained at its former high level.

To measure the upsurge of research activity is not easy, but a few figures may be cited, none of which by themselves are good indicators but which may be meaningful when taken together. The dollar volume of sponsored research in the Institute has increased from approximately \$850,000 per year at the end of 1950 to approximately \$1,350,000 at the end of 1952. More significant perhaps is the increase in the number of persons active in research and in the student participation. In 1950-51, a total of 220 persons was active in research, of whom 96 were graduate or undergraduate students. In 1951-52, approximately 300 persons were active in research, 130 of them students. Thus, research activity and the participation in it of students increased even when the total faculty decreased from 234 to 216. The number of publications reported and the number of individuals publishing have also increased markedly in the last four years in spite of a decrease in academic faculty.

At the beginning of the biennium the contract research was centered in six of the Institute departments. Now virtually every department is taking part.

Two most interesting research service centers intended for all-University and outside use have proven themselves: the Computing Center and the Standards Laboratory.

The Computing Center was established and began operating as this biennium began. Initially only an analog computer was obtained, but from funds obtained from its outside use a mechanical digital computer was added during the second year. Currently the machines are in operation most of the daytime working hours as well as being in great demand at night and during weekends. The facilities have been used by more than ten different departments, including the Medical School. In addition, the Center has been integrated into the instructional program to the extent of two courses that regularly use the computers as part of their work.

The Standards Laboratory, established a year ago, is growing in a modest but sound manner. Its calibration services have been used by numerous departments of the University and one or two outside industrial concerns.

Evening Engineering Graduate Study—As a result of requests and a survey of interest, the Institute of Technology, the Graduate School, and the General Extension Division recommended a program of instruction toward

the master of science degree in engineering with the majority of course work taught in evening hours. This was approved by the Board of Regents in March, 1951. Since its initiation some 82 students have obtained regular admission to the Graduate School for participation in this program. Experience has shown that the majority can handle adequately only one course in this manner. A study of the accomplishment of the 82 students accepted in the program indicates that while the attrition is fairly high, the program has met with enough success to warrant continuation.

Architecture—The selective admission system which has been operating in the School of Architecture since the war has stabilized enrollment. Because the enrollment did not rise so high, the School has not been faced with the retrenchment problems necessitated by the falling enrollment in the Institute and the University as a whole. On the other hand, the selective admission system results in a much larger proportion of students graduating, which means that more and abler students are in the advanced courses and that therefore a qualitative rather than a quantitative increase in the teaching load results. The present faculty is fully engaged with its present load and continues to feel that branching out into such offerings as the postgraduate architectural or city planning fields should await the provision of adequate additions to staff and physical facilities.

The School continues to enjoy its position as one of the first, if not the first, undergraduate architectural school in the country. The desirability of making it a regional school to serve the neighboring states as well as Minnesota, which was mentioned in the last biennial report, continues to be foremost in the minds of the faculty. It is hoped that ways can be worked out to implement a cooperation with other institutions to make the maximum use of the School and to obtain the highest caliber students from the region as a whole.

The faculty has been active in the creative work of actual planning. A considerable number of houses, schools, and other buildings designed by the faculty members have won national recognition. The contributions to the planning of the new Iron Range towns may be cited as a service of great significance to the state. The work of the University advisory architect, a member of the faculty, is a demonstration of service to the University as a whole. The primary problem for the next biennium will be the selection of staff additions and replacements.

School of Chemistry—The School of Chemistry has continued its training of competent chemists and chemical engineers, both at the undergraduate and graduate level. An increasing number of alumni are achieving outstanding positions in the chemical profession in both industrial and academic fields. Active research programs have resulted in an increasing number of scientific publications during the biennium. Chemistry granted 25 M.S. degrees and 47 Ph.D. degrees; Chemical Engineering, 29 M.S. degrees and 11 Ph.D. degrees. The number of students has declined markedly during this period, the greatest loss being at the undergraduate level. However, there is evidence that the numbers entering the fields of chemistry will increase in the near future.

Remodeling of the laboratories is proceeding slowly but steadily, and complete renovation of the stockrooms will be completed in the near future. A radio isotope laboratory is being completed according to Atomic Energy Commission standards and will greatly aid research activities. A part of the space in the basement vacated by Chemical Engineering has been taken over for research in physical chemistry. The chemistry shop will have adequate space for the first time in its history. The most serious problem is to complete the modernization and rehabilitation of the Chemistry Building, a project involving large expenditures.

Noteworthy are the honors and offices held by distinguished members of the Chemistry and Chemical Engineering faculty as listed elsewhere in this volume. During the biennium the number of postgraduate fellowships granted by industry increased by 6. In addition 4 graduate students in chemistry were awarded National Science Foundation fellowships. The grant-in-aid for fundamental research given by the Du Pont Company was increased from \$10,000 to \$15,000 annually.

Among the activities in the Inorganic Division are 23 contributions by staff members to chemical journals and 4 new or revised textbooks. In addition, a study of the properties of oxygen fluoride has been completed, apparatus for the measurement of infrared spectra at low temperature is in the process of completion, and a project sponsored by the Atomic Energy Commission will be started in the fall of 1952.

In the Analytical Division the extensive work for the Rubber Reserve again produced important results of direct value to the country, and the division conducted a fundamental program of research directed toward the solution of a part of the chemistry involved in cancer biology. The research in this division has resulted in more than 50 publications in the biennium.

The Organic Division continued its activity and has awarded about 30 doctoral degrees, published 20-30 papers, and taken part extensively in editorships, industrial consultantships, fundamental research for the government, and many outside lectures. This division still has urgent needs for enlarging the laboratory for first-year graduate students, for more adequate office-laboratories for the staff, and other important space rearrangements which are part of the over-all rehabilitation of the Chemistry Building.

Physical Chemistry granted 10 Ph.D. degrees and has been most active in graduate and service work to other departments. Research contracts on the investigation of molecular spectroscopy, on the properties of flame kinetics, on crystal structures at low temperatures, and on the photochemical and optical properties of chlorophyll contribute to a wealth of fundamental research activity. In this division services to the University are provided by the Standards Laboratory for standardizing chemical and physical equipment and by a program of providing infrared observation spectra to Organic Chemistry, the Medical School, and other departments of the University, and by making the spectrometers available for service to others.

With the Chemical Engineering Department now settled in its new building, activity in teaching and research has reached a new peak. The department granted 11 Ph.D. degrees and 29 Master's degrees in the biennium. Faculty members published numerous papers and served as consultants to industry. Four government-sponsored research contracts were undertaken during this period and are in process. As a result of the sabbatical visit of one of the faculty members to France, there are a number of French graduate students now in the department, which thereby will contribute notably to the initial development of chemical engineering in France. One flaw in the otherwise excellent new Chemical Engineering Building is that the unit processes laboratory (a core course for undergraduate chemical engineers) is still operating with equipment which was obsolete fifteen years ago.

College of Engineering—During this biennium the Department of Aeronautical Engineering has enjoyed and built up its academic and research activities in its new facilities in the Aeronautical Engineering Building. The staff members of the department and the research staff have published a number of articles in the appropriate journals indicative of a healthy research program. At the Rosemount Research Center various new transonic, supersonic, and hypersonic wind tunnels have been completed and are in use. The integration of the Rosemount Research Center work with the instructional program of the department is proceeding well.

The Civil Engineering Department is marked by a fairly stable enrollment but with a consistently higher percentage of enrollment in upperclass and graduate levels than heretofore. In the area of teaching facilities, an undergraduate soils laboratory has been established, the surveying camp has been moved from the Rosemount Research Center to Grand Rapids, and the latter location is proving eminently satisfactory. Courses in hydromechanics, taken by many students in the various branches of the Institute, have been transferred to the Civil Engineering Department from the Department of Mathematics and Mechanics, where they are now associated with the advanced work in this field of the St. Anthony Falls Hydraulic Laboratory. Some modernization of the elementary hydraulic laboratory has been effected. A modest amount of research is proceeding in the department in the fields of sanitary, structural, highway, and soils engineering. The Civil Engineering Depart-

ment's development remains severely hampered by its dispersal over numerous buildings and in temporary provisional laboratory facilities which are inadequate. There is an urgent need for the provision of space to allow the Civil Engineering Department to centralize its work and develop its teaching and research laboratories in a more permanent, stable fashion.

The St. Anthony Falls Hydraulic Laboratory operates at maximum capacity dictated by limitations of space. Its activities combine academic work and public service undertakings, both in the form of extensive sponsored research and in the offering of short courses on problems related to hydraulics and soil conservation. These courses have been attended by federal and state engineers and representatives from other universities throughout the United States. International recognition of the laboratory comes in many forms. Graduate students come from ten or more different countries of the world. The International Association for Hydraulic Research has selected the Laboratory as a location for its 1953 meeting, as has the Hydraulics Division of the American Society of Civil Engineers. The regular publications of the laboratory have increased steadily over the biennium and indicate a diversification of research reflected in the variety of graduate experimental studies. Because this laboratory performs its work largely by cooperation with outside agencies, its unusually excellent contribution to the Institute's program is accomplished with very modest support from state funds. Sound expansion and continued growth of work in this area should be encouraged by the provision of additional space and facilities.

The Department of Drawing and Descriptive Geometry, in addition to its fundamental work in the instruction of all engineering students in engineering drawing, has borne the brunt of the direction and a large share of the instruction of the new technical aid program mentioned elsewhere in this report. The content of its freshman sequence of courses has been revised in the direction of introducing material in graphical computation. This is a step in upgrading the work in line with modern trends and needs.

In the undergraduate field, the Electrical Engineering Department is devoting itself, as are the other engineering departments in the Institute, to the two problems: (1) adapting its curriculum to the uniform freshman and sophomore program and (2) improving the efficiency of the fifth year of the five-year program, with which the last year is the first experience. During this biennium the largest number of graduate students in the history of the University obtained degrees in electrical engineering. The research work in the department has grown to such an extent that it is now limited only by space requirements. In addition to numerous studies in the general area of vacuum tubes, the Electrical Engineering Department has continued to assist the Department of Physics in the construction of a proton linear accelerator and has cooperated with the Mines Experiment Station on a study of the magnetic properties of small particles in connection with the taconite reduction process. Publications of the department in the biennium are numerous and originate from a wide variety of faculty members. There is an outstanding need for a top caliber man in the field of electro-servomechanisms, computers, and power control, and for the establishment of a laboratory in these areas.

With the growth of sponsored research within the departments, a noteworthy change in policy with regard to the operations in the Engineering Experiment Station has been effected. Projects formerly handled by the Experiment Station are now being transferred to the jurisdiction of the appropriate department. The research operations of the Station have thus been minimized, and the Station acts to provide services for the entire Institute staff to facilitate the initiation, execution, coordination, and reporting of their research. The Station also still meets the responsibilities for state service by processing inquiries from outside agencies for small testing and semi-research jobs which are not in the appropriate field of any of the established academic departments. One year's experience with this new policy indicates that it aids in making the total research work contribute a maximum to the fundamental aims of the Institute in undergraduate and graduate instruction and research.

The Department of Mathematics and Mechanics has had two years of considerable growth in building up its own graduate work, not only in mathe-

matics but also in the field of mechanics and materials. The department is involved in research work sponsored by three federal agencies and one industrial concern. The projects lie both in the field of mathematics and an extensive undertaking in the mechanics and materials research activity. Five Ph.D. degrees in mathematics were granted during the biennium and there is a considerable number of students now in the department proceeding to advanced degrees in mathematics; also 7 graduate students are active in the mechanics and materials research activity, of whom 3 are working toward their doctorates in mechanics and materials.

The Mechanical Engineering Department has been reorganized during the biennium into four main areas of activity: thermodynamics and power; machine design and instrumentation; industrial engineering; and refrigeration, heating, and air conditioning. This consolidation resulted in a considerable strengthening of the offerings even though the total staff of the department has decreased in numbers during the biennium. Mechanical Engineering has participated considerably in the various new programs of the Institute—the work-study program, the evening graduate engineering program, and to a smaller extent the technical aid program. It is hoped that in the future the heat transfer laboratory may be developed in the department and that Mechanical Engineering may participate in a joint development in servomechanisms and instrumentation with the Department of Electrical Engineering.

School of Mines and Metallurgy—Moves have been made in the School of Mines and Metallurgy to consolidate course work to reduce the number of different degrees offered. The curriculum which formerly was required for the degree of bachelor of petroleum engineering has been reorganized as an option in mining engineering, with a similar option under geological engineering. The enrollment in the School is below the optimum on the basis of present staff and facilities. The School continues its service to the state by estimating the iron ore reserves for the Minnesota Tax Commission. A moderate amount of research sponsored by outside agencies, through contracts and grants, is under way and an effort is being made to stimulate research in mining engineering, which is comparatively neglected in educational institutions. It is the plan of the School to meet the expanding need for highly trained personnel arising out of the mining and treatment of low grade ores of Minnesota by encouraging graduate training in mining and mineral dressing. This will necessitate an improvement in the research facilities for mining and will be strengthened by drawing extensively upon offerings in other departments of the Institute and the Department of Geology for graduate subjects fundamental to mining and metallurgy.

Mines Experiment Station—In line with the over-all objective of the Mines Experiment Station, which is the effective utilization of iron and other mineral resources of the state, the main research activities have been in some way related to the utilization of taconite. Now, however, the taconite problem with which the Mines Experiment Station has been actively engaged for many years has reached the stage where important commercial developments are being undertaken. It is felt, therefore, that while the Station must continue its important service in the area of taconite, it must also concurrently develop a basic research program for the future, and projects are being supported by the Station both within the School of Mines and within the Department of Electrical Engineering with a view to developing new fundamental areas. With the development of the taconite industry, the Station must share the responsibility with the School of Mines for supplying the need of highly trained personnel and a close working relationship is being maintained in this direction.

Summary—The faculty is strengthening the Institute of Technology in all its various areas of work, and future effort will be devoted to a continuation of this process in undergraduate, graduate, and research work. A strong Institute of Technology devoted to high quality, fundamental work in physical sciences and engineering can make a very marked contribution to the industrial and technological future of the state.—ATHELSTAN F. SPILHAUS, dean.

DEPARTMENT OF AGRICULTURE

Agricultural Experiment Station—The Agricultural Experiment Station has continued its attack during the biennium on current problems in the broad fields of agriculture, forestry, home economics, and veterinary medicine, while concentrating concurrently on basic research which will lay the groundwork for a solution of problems which may not be evident at this time. The present program of investigations includes nearly 300 separate projects. In each of the years of the biennium, about 20 projects have been completed and an equal number initiated. Some of the research is of long standing due to its nature: for example, the development of new varieties of plants or breeds of livestock. These studies have been under way for many years and will continue indefinitely into the future even though valuable discoveries may be made each year. Other studies may be of short duration, where the answers are obtained within a few months or a few years. Every effort is made to bring the results of research to the attention of the people of the state as soon as possible, so that everyone may benefit from the newly revealed facts.

The accompanying table lists the publications from the Experiment Station during the biennium.

EXPERIMENT STATION PUBLICATIONS

		Number issued	Number of pages	Total number of copies
General series bulletins	1950-51	2	56	7,000
	1951-52	6	282	40,000
Technical series bulletins	1950-51	2	164	8,000
	1951-52	8	308	30,000
Minnesota Farm & Home Science	1950-51	3	52	49,550
	1951-52	3	48	49,000
Miscellaneous and technical report series	1950-51	5	92	28,500
	1951-52	2	48	17,500
Journal series papers	1950-51	158	1,050	.....
	1951-52	300	2,000	.....

It will be noted that the number of bulletins, both technical and general, increased significantly during the biennium. *Minnesota Farm and Home Science*, a popular publication reporting on research, appears three times a year. There was a slight decrease in the number of copies distributed. Mailing lists were revised during 1951 to eliminate duplications and to remove addresses which were no longer productive. The decrease in the number of copies of the Miscellaneous and Technical Report Series in the second year of the biennium was not unusual because the two series include material which becomes available at irregular intervals, perhaps two or three years apart. The marked increase in the number of Journal Series Papers which are largely those that go to scientific journals, trade papers, etc., is really significant. It is not possible to estimate the actual number of copies of these papers which are read in these journals or magazines, but it is known to be in the hundreds of thousands. A paper published in some of the scientific journals might reach fifty to sixty thousand people. In other cases, such articles might be seen by more than a million people. It is evident, therefore, that the results of the research program are being disseminated widely.

In addition to the publications listed above, there have been hundreds of news releases concerning agricultural and related research. Hundreds of radio broadcasts and, in the past two years, an increasing number of television programs have been based upon the research conducted by the Agricultural Experiment Station. The Agricultural Extension Service has been the active partner in these enterprises at the community, county, and state level. Its representatives are the missionaries for better agriculture.

One of the significant features of the research program during the biennium has been the continued trend toward broader cooperation on research projects. This means that more of the talents and facilities of the Agricultural Experiment Station, of the University, and of the state are being utilized to hasten and to strengthen the attack on agricultural problems. It should be stated further that the cooperation in agricultural research is not restricted to the state of Minnesota alone. More and more we have been able to formulate projects and initiate active cooperation and coordination between the

states and with federal agencies. The whole agricultural research program has been advanced by this spirit and application of cooperation.

A considerable part of the research conducted by the Minnesota Agricultural Experiment Station has been extended to the branch stations at Rosemount, Waseca, Excelsior, Morris, Crookston, Grand Rapids, and Duluth; as well as the forestry station at Cloquet, the potato breeding farm at Castle Danger, the Biological station at Itasca Park, and on many cooperating farms. This extension of the research over the state has broadened the usefulness of the results because differences in soil, climate, and other factors have been encountered. The resources of the University were employed wherever they exist and the cooperation of the superintendents and staffs of the outlying stations is acknowledged gratefully. During the biennium, there has been a closer relationship with the Hormel Institute at Austin and with the Red River Valley Potato Growers' Association at East Grand Forks. Unfortunately, the Mayo Forestry and Horticultural Institute at Rochester practically suspended operations during 1951 due to the lack of funds. Some of the studies initiated at Rochester are being continued with the cooperation of the Mayo Association and supported by the limited funds and staff furnished by the University. These researches involve long-time studies which we hope to carry for a sufficient period to secure dividends on the expenditures made in the early years of the Institute's existence.

There has been a greater interest in the agricultural research program on the part of individuals, private corporations, and associations. Significant contributions have been made to the Greater University Fund to support agricultural research. An excellent example of this public interest is the Grassland Research Fund, to which sizable contributions were made by a considerable number of businessmen. The research made possible by this fund is now under way at the Rosemount Station. There has also been an increase each year in the grants made by the State and federal government as well as by individuals, corporations, and associations of one kind or another, to subsidize particular lines of research or to make it possible to expand projects which were already under way, but inadequately financed. The fact that private funds are flowing into our agricultural research program is clear proof of the fact that these sponsors believe that the University is conducting productive research and, further, that such investigations merit the additional support.

There have been some improvements in major facilities available to the Experiment Station during the biennium. The new Home Economics Building will provide necessary laboratories for research in that important field. A new greenhouse was constructed on the St. Paul Campus to expedite the research on rusts of cereals, such as emergency studies on Race 15B of stem rust. The long-awaited library at the St. Paul Campus will strengthen and promote effective research. The new buildings for veterinary medicine have furnished for the first time the laboratories and other facilities which are essential for sound research on animal diseases, as well as for instruction in the School of Veterinary Medicine. Improvements have been made at the branch stations including a swine barn and farm house at Rosemount, heating plants at Morris and Crookston, an addition to Agricultural Hall at Morris, and a dairy barn at Duluth. Other minor improvements have been made at all stations.

The Advisory Council of the Department of Agriculture has been active throughout the biennium and has reviewed the research program and other activities and functions of the Department with the result that we may expect to move forward significantly and productively. These representatives of the public have been most constructive in their recommendations during this period.

In the field of agricultural economics, there has been outstanding progress in the study of the marketing of farm products and the purchasing of farm supplies. The results have been applied immediately by the dairy and livestock industries and particularly cooperatives of many kinds. The Minnesota Station has been engaged continuously in farm management research for over fifty years. Actually, Minnesota was the leader in this important field of investigation. The operation of farms in the state has been made much more efficient because of the studies of this nature. Further research has been done upon farm prices and farm finance, as well as in land economics. A very significant regional investigation is being led by the Minnesota staff to determine

the effect of price supports and marketing agreements on potato marketing in the north central states.

Considerable progress has been made on the investigations of farm buildings and farm machinery in an attempt to improve the efficiency of farm structures and field operations. Information has been made available to farmers concerning drainage and irrigation, as a result of investigations during the biennium.

In the field of agronomy and plant genetics, new varieties of farm crops of many sorts have been developed and introduced. Sometimes the progress is slow, but year by year, improved and more disease-resistant varieties of wheat, oats, barley, flax, corn, alfalfa, clover, soybeans, etc., will be forthcoming. Considerable success has been obtained in developing a variety of corn which will be resistant to the attacks of the corn borer. Weed control studies have also been extensive and productive.

Steady progress is being made in the development of new and improved breeds of swine and sheep. There has been some improvement of the Minnesota Number 1 and Minnesota Number 2 hogs that were introduced somewhat earlier. The Minnesota Number 100 line of sheep has attracted a great deal of attention because of some superior characteristics. Considerable new information has been obtained about the value of antibiotics, particularly in the rations for swine. The results are often dramatic but not well understood. There has been an intensification of the study of the factors affecting fertility in bulls and of methods of increasing their breeding efficiency, especially in artificial insemination.

Studies of the factors influencing the keeping quality and processing value of grain are revealing facts that are eagerly sought by the grain trade and millers. The research is being extended with the active support of those groups, since it is important that the deterioration of grain be reduced to the minimum. Chemical and biological studies of animal nutrition have been on a fundamental basis and the results are being recognized universally. The research on fats, lipids, and colloid systems in plant and animal products has been outstanding. Leadership in the research on the chemistry and utilization of carbohydrates has been established at Minnesota, with many basic and practical applications of the results obtained to date.

The Minnesota Station has established the largest dairy herd of identical twins in the country. These have served spectacularly and effectively for investigations on breeding, physiology, nutrition, management, and disease. Active studies are under way on the use of radio-active isotopes as tracers in a study of milk secretion. Fundamental work has been done on the oxidation of unsaturated fatty acids by several species of bacteria. Such work should eventually have commercial significance. The use of a white mutant of *Penicillium roqueforti* has been investigated for use in producing a comparatively uncolored cheese with the characteristic flavor and aroma of the commercial Blue or Roquefort-type of cheese. Consumer enthusiasm for such a product seems to be possible. Fundamental investigations have also been made upon shrinkage of ice cream, a most troublesome phenomenon. Further observations have been made on factors influencing the properties and market qualities of milk, cream, concentrated and dry milk products. Many of the developments have been applied extensively in the industry. The project on the improvement of dairy cattle through breeding, which involves regional and national cooperation, has been progressing satisfactorily. This is a long-time project which will extend for generations.

The search for methods to control insect pests of agricultural crops, forest and shade trees, and even animals continues unabated. The entomological work involves studies of insect population, the character of the insect cuticle which influences insecticide penetration, the evaluation of insecticides, as well as the physiology, nutrition, and reproduction of insects. Special attention has been given to the corn borer and the insects that are beneficial or detrimental to legume seed production. Basic studies are now under way with respect to the important insect pollinators, without which some crops would be unable to produce fruit or seed. Investigations are being made also of the diseases of the honey bee, which has considerable economic importance. Studies have also been made of the biology and management problems of commercial

fisheries in the state. In addition, research on parasites of mammals, birds, and fish, as well as studies on wild life and fur-bearing animals are now under way.

In the field of forestry, important studies have been made on the effect of the source of seed upon the growth, development, and habits of native tree species, on the development of the farm wood lot and shelter belt, natural reproduction and planting of forest trees, and of their management. Significant progress has been made on the study of farm fencing materials, including observations on methods of preparation, setting, and costs.

Research in home economics has included basic studies on human nutrition, the nutritive value of foods, and the properties and serviceability of textiles.

New and improved varieties of potatoes have been developed, particularly at the Castle Danger Farm. There has been a continuation of the investigations on the breeding and improvement of greenhouse and garden flowers, ornamental plants, and a variety of fruits and vegetables. Valuable observations have been made upon the marketing of fresh sweet corn and on the freezing of fruit, vegetables, and other food products. Fundamental investigations on the inheritance of characters in fruits and winter hardiness in horticultural plants have been under way, as well as studies on vegetable physiology and the control of weeds in horticultural crops.

The outstanding work of the Minnesota Station in the field of the nature and control of diseases of farm crops, especially corn, flax, and oats, wheat, barley, and soybeans, and a variety of fruits, vegetables, and ornamental and forest plants, has continued. A great variety of diseases remains to be investigated and new strains of disease-producing organisms constantly appear. The close cooperation between the plant breeder and the plant pathologist has been a characteristic of the research program at the Minnesota Station. There has been, also, research in plant metabolism and some of the fundamental aspects of weed control. Some interesting and significant studies are under way on the effect of radioactive substances on plant pathogens and other micro-organisms, as well as on the air dissemination of disease-producing organisms and allergens.

Significant progress has been made in poultry breeding, as well as in studies on the nutrient requirements of poultry, the efficiency of turkey meat production as influenced by inheritance, and changes in poultry meat as affected by methods of processing and storage.

Soil investigations have had emphasis on the studies on soil composition, structure, management, and conservation. Interesting observations have been made with radioactive phosphorous in fertilizers and the handling of taconite tailings for plant production. The effect of soil conditions on pasture development and on the production of legume seed has been explored in cooperation with other divisions of the Experiment Station.

Considerable progress has been made in the studies on mastitis and brucellosis. The development of the ring test for the latter has been most significant. Progress is also being made in the development of simple and practical differential tests for use in the control of brucellosis. Poultry maladies, such as Newcastle disease and pullorum disease, have been investigated with most promising results. Research on poisoning from trichlorethylene-extracted soybean oil meal has yielded valuable information which is being applied directly by the farmers of the state. Other research has been concerned with virus diseases of livestock, infertility in the bovine, liver flukes, etc.

Sociological studies have been made of the rural population of Minnesota with emphasis on community organization and selective migration. Significant facts have been made available to social and civic leaders of the state.

This is a rather fragmentary review of the activities of the research staff of the Agricultural Experiment Station. It is not so much a recital of specific accomplishments but rather an indication of the diversity of research under way. An attempt has been made to emphasize the importance of the utilization of all the talents and facilities of the widespread University of Minnesota and cooperation with individuals or groups of individuals in the state, in neighboring institutions, and in federal agencies. Most of the problems which must be studied are so complex that it is no longer possible for a single man or a single department to solve the problems without intellectual or active cooperation of others.

It is important, also, to point out that the cost of research has been mounting with each succeeding year. While the dollars made available to support agricultural research have been increasing, the decreasing purchasing value of the dollar has meant that funds have not kept pace with costs. It is remarkable that so much progress has been made under the conditions that have existed. The outstanding accomplishments of the Agricultural Experiment Station staff can be traced principally to the devotion to duty and untiring efforts of the hundreds of men and women who have contributed so richly to our fund of knowledge. Their results have made it possible for agriculture to produce more abundantly in these critical years. It is quite evident that the public has a vital interest in research and will be willing to support it generously if the facts are brought to light. The dissemination of the results of research through the spoken word in meetings or over the radio, the printed page, or by the recent marvel of television will keep the public well enough informed to insist upon an investment in research which will bring returns, often beyond expectation.

Agricultural Extension Service—Agricultural extension work during 1950-52 was marked by an increased demand for all of the various services included in the program. There was an expansion of home extension work, participation in the 4-H and older youth programs, and the usual heavy demands on the services of county agricultural agents. During each year of the biennium, county agricultural agents, home agents, and 4-H agents collectively made over 2½ million contacts with farm people through farm visits, office and telephone calls, local leaders, and extension meetings. In home extension work there were more than 2,500 community groups enrolled each year, with a total participation of more than 45,000 farm women. Enrollment in 4-H club work continued around the 50,000 mark annually, and further growth is limited only because of lack of trained personnel or funds for their employment.

At the close of the biennium there were employed in the Service 91 county agricultural agents, 60 home extension agents, 14 4-H club agents, 45 specialists, and 16 supervisors and administrative officers. The recruitment of trained personnel for agricultural extension work is becoming increasingly difficult as the demand for such workers has been in excess of the supply available during recent years. This is especially true of home economists. Nevertheless, an adequate and competent staff has been reasonably well maintained. During the biennium expansion of home extension work has taken place and the number of home extension agents has been increased to 60 full-time positions.

Continuing the policy of past years, staff members have been urged to take leave for graduate study and refresher courses. During the period two members of the specialist staff received their doctor of philosophy degrees and one additional staff member has completed his course work requirements for this degree. Also, a substantial number of county workers have attended summer sessions for extension workers that have been established nationally for this purpose. Several staff members were granted leave for special purposes. The director served as chief of the Marshall Plan in Ireland from July 1950 to July 1951. Professor Dankers served under the High Commissioner in Bavaria during the first half of the biennium, at which time he was in charge of the work in food and agriculture. Two agricultural agents, Paul Kunkel of Brown county and E. C. Lenzmeier of Stearns county, served for several months each in Germany interviewing displaced persons for possible farm employment in the United States.

During 1951 the Agricultural Extension Service, in cooperation with the Economic Cooperation Administration and the State Department, handled 117 visitors from 18 different countries. The full time of one staff member was required in preparing itineraries for these foreign trainees, all of whom were in the state on an average of fourteen days each. Many were placed on farms to observe farm practices of this country, others who were making a study of extension work were placed in county extension offices, while still others were given assistance in special interest fields, such as agricultural credit-cooperatives and farm organizations. Practically every specialist on the staff and a majority of the county extension workers assisted in some phase of the train-

ing of these foreign visitors. The program was eminently successful and a very real contribution to better international understanding.

During the biennium, funds for extension work from all sources were increased in the amount of \$40,839. Total funds from federal, state, county, and local sources now available for agricultural extension work amount to \$1,665,659. Of this sum 22 per cent is derived from state appropriations, 26.4 per cent from county sources, 2.4 per cent from nonpublic sources, and 49.2 per cent from federal appropriations. In this connection it should be pointed out that the average figure for state support for agricultural extension work for the country as a whole is 34.7 per cent, whereas in Minnesota it is only 22 per cent. Likewise, the average per cent of federal funds for all states is 40.1 per cent of their total expenditures for extension work, contrasted with 49.2 per cent in Minnesota. It is obvious that Minnesota is leaning more heavily on federal support for this work than is healthy or desirable. It is also evident that the state is not contributing its proportionate share for the support of this work.

If Minnesota is to maintain the high standards that have characterized its agricultural extension organization in the past more financial support from all sources will be necessary. At the present time the counties are contributing more than their just share for the support of the work. During the biennium, total funds for extension work were not increased sufficiently to take care of the higher salaries that must be paid for competent workers or for cost-of-living salary adjustments to existing staff. At the same time other costs incident to the conduct of the work have increased markedly.

College of Agriculture, Forestry, Home Economics, and Veterinary Medicine—Registration in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine declined during the biennium. Total enrollment during the regular academic year declined sharply from 2,210 in 1949-50 to 1,934 in 1950-51 and to 1,582 in 1951-52. Enrollment in all areas was reduced with the exception of that of the School of Veterinary Medicine, where the full four classes are now in operation. In the principal areas of agriculture, forestry, and home economics the 1951-52 enrollment was 61.4 per cent, 54.9 per cent, and 84.6 per cent respectively of the 1948-49 figures. Veteran students receiving benefits from Public Laws 346 and 16 numbered 290 in the spring quarter of 1952, as compared to 777 in the spring of 1950.

The orientation-registration and New Students' Week programs for students entering the College and the University were further improved as a result of increased experience with the programs and closer cooperative relationships with the Minneapolis Campus.

During the biennium, staff representatives of the Student Activities Bureau and the Student Counseling Bureau were housed on the St. Paul Campus and directed specific attention to the needs of the St. Paul Campus. The Student Activities Bureau representative, Viola M. Brandon, served as adviser to the Student Council and worked closely with the Union Board, as well as advising all other student organizations. The Student Counseling Bureau representative, Irving Nudell, directed his attention, in the opening phases of his work, chiefly to in-service training of and service to those members of the College faculty serving as advisers to undergraduate students. These two representatives from the Office of the Dean of Students have made a great contribution in their respective areas to student-faculty relationships on the St. Paul Campus.

Largely as an outgrowth of Mr. Nudell's activities on the St. Paul Campus nine divisions explored the program of faculty advising of undergraduate students with representatives of the Student Counseling Bureau, the College Office, and other members of the staff of the Office of the Dean of Students. A re-evaluation has been undertaken of the tests and devices now utilized by the College to predict academic success.

An annual series of faculty seminars instituted during the biennium proved of interest and value. In 1951, five sessions relating to examination practices and procedures dealt with the philosophy of evaluation and grading and the development and use of objective, subjective, and special types of evaluative devices. In 1952 four similar sessions dealt with conflicts in higher education, objectives of the land-grant college programs, special problems in professional

education, and the use of objectives in teaching. Following the 1951 series, divisional seminars were devoted to a more intensive study of the problems of evaluation.

The cooperative approach to campus problems made possible by the Student-Faculty Intermediary Board continued to be effective. Of chief interest was the report of the Subcommittee on Placement Services, recommending to the dean of the College that a faculty committee consider this question. Subsequently a special committee of faculty and students proposed that the College increase its services in this area, and that an attempt be made to secure the services of a staff member competent to organize and promote more effective and efficient placement of graduates of the College, develop materials interpreting the program of the College more fully, and to serve as a placement adviser. It is not contemplated that this service would replace placement activities in the various schools and divisions of the College—it would supplement the existing programs.

During the biennium the need for a more complete and adequate interpretation of the offerings of the College and the opportunities awaiting individuals trained in the fields served by the College program became evident. As a result the College Office made a survey of the employment of graduates of the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine in 1950. The results of this survey will be published in the fall of 1952. Of the 6,339 graduates in agriculture, forestry, and home economics since the inception of the program, contact was established with 5,673, and 4,297 replies were received. This survey will note type of occupation, location, relationship to undergraduate training, additional study beyond the Bachelor's degree, and certain socio-economic factors. It is anticipated that teachers of vocational agriculture and home economics at the secondary school level, extension personnel, and high school and college counselors will find this information useful. It will serve also as a useful college record.

The physical plant on the St. Paul Campus was improved and expanded during the biennium. The Veterinary Basic Science Building, to be devoted to laboratory instruction in the School of Veterinary Medicine, is nearing completion. The Agriculture Library Building is expected to be ready for occupancy in August, 1952. On May 9, 1952, the new wing of the Home Economics Building was dedicated. This structure, placed into service in the winter quarter of 1952, has drawn much favorable attention to the program in home economics and should contribute to an increase in enrollment and the effectiveness of the program in home economics in future years. With the moving of the Agriculture Library to its new quarters, a redistribution of space in Coffey Hall will provide improved facilities for almost all units now housed in this building. Among other developments it will allow the representatives of the Office of the Dean of Students, dealing with problems of student housing, activities advising, counseling, and veterans problems, to be officed in Coffey Hall, in closer proximity to the campus population, the Office of Admissions and Records, and the Office of the Dean of the College. This move will strengthen and extend the services of the Office of the Dean of Students to both students and staff on the St. Paul Campus.

In the spring of 1952 final building committee approval was given to the plans for the first unit of the new St. Paul Campus Student Union. No date has been set for initiating construction of this building, but it is hoped that circumstances will permit beginning such a move within the next two years.

In 1951 the first 23 graduates of the School of Veterinary Medicine received the degree, doctor of veterinary medicine, and 44 completed the requirements for this degree in June 1952. The Dairy Husbandry Division received faculty approval for the organization of a dairy technology curriculum which was differentiated somewhat more clearly than formerly from the dairy production program. The program in efficient reading developed by the Rhetoric Division received national recognition. A re-examination of course objectives was evidenced throughout the College program.

Students in the College continued to conduct an extremely vigorous program of out-of-class educational activities. St. Paul Campus student participation was evident in all-University programs as well as those relating to this campus alone. In a rather major activity reorganization the students moved to combine their previous Foresters' Day, Home Economics Day, and Ag-Royal

Day programs into one unified campus event to be known as "Kitchi-Geshig," which in Chippewa Indian language means "Big Event." Their purposes in developing this program include a device to bring students in the different subject matter areas more closely into contact with other programs of the College, and principally to do a more effective job in interpreting the instructional program of the College to the University as a whole and to the public. Kitchi-Geshig is intended to be fundamentally educational in nature, and brings a mature philosophy to the "College Day" idea. The developing of Kitchi-Geshig in the spring of 1952 presented many problems in organization and administration, and students and staff look forward to this event as becoming of major significance in campus life.

Employment of graduates continued to be firm in all areas, with home economics education and extension and dietitians being in particularly short supply, and a need felt throughout the campus for a greater number of graduates to meet the demands of industry and private and public agencies.

Schools of Agriculture—During the biennium the School of Agriculture on the St. Paul Campus continued with the further development of its program, pointed primarily toward older students and those high school graduates who for one reason or another do not plan on a college degree program, but who do wish vocational training beyond that which may be secured in high school—in agriculture, home economics, practical nursing, and home management. The registration was 263 in 1950-51 and 215 in 1951-52.

During the past year further steps have been taken to clarify the areas of the state and types of students to be served by the St. Paul school and the outlying schools of agriculture. The superintendents of the outlying schools have adopted a policy which includes the following:

1. The outlying schools are not centering their attention on an educational program for high school graduates. At the present time these schools are primarily interested in the younger age group.
2. The outlying schools will accept high school graduates, or similar age students, if these students desire to take course work as offered in the regular curriculum.
3. The current bulletins of information from the outlying schools will not feature any course work which is pointed specifically to the interests of the high school graduate or similar age student.

This policy makes the field of service for the School of Agriculture on the St. Paul Campus statewide without being in conflict with the outlying schools, since these schools draw their student bodies largely from eighth grade graduates and younger students.

The new course in practical nursing and home management given cooperatively by the School of Nursing and the School of Agriculture, St. Paul Campus, continues very successfully. Two classes of practical nurses have now been graduated. Most of the girls find employment in rural hospitals.

In all of the schools of agriculture there has been a slight decrease in enrollment as compared with the previous biennium. At the St. Paul school it is felt that the great need for farm help on the home farms of prospective students, and the threat of draft, have operated to reduce the enrollment. In the outlying schools the drop in enrollment was closely correlated with the progress of public school reorganization and consolidation in various parts of the state. Students often find it more convenient to attend a local high school than a school of agriculture. There are, however, still far too many farm youth who do not attend any school beyond the eighth grade and the schools of agriculture continue to fill a real need in the educational system of the state.

The most significant development that has taken place in the outlying schools is that of changing from a three-year to a four-year curriculum. This change was made in order to extend educational opportunities, at least equivalent to that offered in the public high schools, to those who attended the schools of agriculture. The West Central School of Agriculture at Morris has completed the change-over, and the schools at Grand Rapids and Crookston will be completely changed over by the spring of 1953. In the interim period certificates have been awarded those who complete the three-year course under the old plan, with diplomas given only to those who complete the four-year course. After 1953, only the four-year diploma will be awarded.

At the Northwest School at Crookston, dormitories for boys have been filled to capacity, but enrollment of girls dropped from 104 in 1950-51 to 83 in 1951-52. It is apparent that increased attention must be given to the curriculum for girls to maintain enrollment. The registration was 358 in 1950-51 and 388 in 1951-52.

The West Central School at Morris has given special attention to a counseling and guidance program. The registration was 356 in 1950-51 and 336 in 1951-52.

The physical plant at the North Central School at Grand Rapids has been given a thorough renovation and repair during the biennium. The curriculum has been revised to keep pace with changing conditions in agriculture. A health and physical education program has been added to the curriculum for all students. There were 74 registrants in 1950-51 and 71 in 1951-52.

During the biennium contracts were let and construction started on the physical plant for the new school of agriculture at Waseca. It is anticipated that this school will be open for students in January, 1953.

Agricultural Short Courses—During the biennium 93 short courses, conferences, and special days were held on the St. Paul Campus, with a total attendance of 24,780.

Among the most significant of these short courses were the Lumber Dealers Short Course, Minnesota State Fire School, Soils and Fertilizer, Liquefied Petroleum Gas, Use of Electricity on the Farm, County Fair Managers, Ice Cream and Market Milk, Cannerymen and Fieldmen, Horticulture, Dairy Products Institute, Artificial Insemination, Berry Growers, Dairy Marketing, Dairy Herd Improvement, Swine Feeders Day, Hardwood Lumber Grading, Prevention of Loss in Marketing Fruits and Vegetables. A Young Farmers Institute for thirty-six leaders from eleven European countries for a period of three weeks was another successful undertaking by the Short Courses unit.

The Short Course office continues to serve as a liaison office in arrangement of classes given by the University Department of Agriculture through the General Extension Division. It also arranges for correspondence courses offered through the General Extension Division by the University Department of Agriculture. Nine such were offered each year with an enrollment of 518 students over the biennium. A total of 25,298 individuals received services of the University through short courses, conferences, special days, extension classes, and correspondence courses for the biennium.—CLYDE H. BAILEY, dean.

COLLEGE OF MEDICAL SCIENCES

During the biennium the College of Medical Sciences not only has further developed its programs of professional training, of research, and of specialized health services but also has realized the completion of some and has made substantial progress on several vitally important construction projects. As such, this was a period of heartening progress. On the other hand, the disturbing international situation with its attendant mobilization, inflation, and uncertainties has increased the need for professionally trained health personnel. And this increased need has occurred at the same time that the identical disturbing factors have been seriously intensifying problems of budget, of staff, and of facilities. The solution of the problems thus created is a serious responsibility confronting all those who are responsible for or concerned with the maintenance of adequate health services in this country.

The major activities of the College of Medical Sciences during the past biennium and the opportunities, responsibilities, and problems of this College in the years immediately ahead are summarized in the following pages.

Undergraduate Medical Students—Between 120 and 125 students have been accepted for the freshman medical class in each of the past several years. This is somewhat more than the optimum number for our present facilities, staff, and budget. The large number of acceptable applicants and the demands for more physicians have influenced the Administrative Committee of the Medical School to authorize temporarily the admission of classes of this size. The number of acceptable applicants for admission to the Medical School continues to be in excess of the number of places available. On the other hand,

the number of such applicants has shown a distinct downward trend during the past two years. This is due largely to the fact that the backlog of World War II veterans wishing to study medicine has largely passed. During the academic year 1951-52, veterans constituted 80 per cent of the senior class, 51 per cent of the junior class, 36 per cent of the sophomore class, and 21 per cent of the freshman class. The freshman class accepted for fall 1952 shows a still further reduction of veterans to 7 per cent. The number of students who fail scholastically or who drop out of Medical School for other reasons during the four years of the medical course totals less than 10 per cent of the number admitted as freshmen. This is evidence of a high level of ability and of splendid personal qualifications on the part of our medical students.

Faculty—The faculty of the College of Medical Sciences has been reduced somewhat during the past two years as a part of the University's retrenchment program. This reduction, small though it has been, has raised some difficult problems because enrollment and teaching loads have shown no decrease, and research activities have increased. The quality of the faculty continues to be excellent in spite of some serious losses to other institutions. Among these were the following:

- Dr. John Adams, professor of pediatrics, to the University of California at Los Angeles.
- Dr. Charles D. May, associate professor of pediatrics, to the State University of Iowa.
- Dr. Forrest H. Adams, assistant professor of pediatrics, to the University of California at Los Angeles.
- Dr. Clarence Dennis, professor of surgery, to Brooklyn Medical School of the University of New York.
- Dr. George N. Aagaard, associate professor of medicine and director of continuation medical education, to the University of Texas.
- Dr. Franklin H. Top, professor of public health, to the State University of Iowa.
- Dr. William Cromartie, associate professor of bacteriology, to the University of North Carolina.
- Margaret S. Taylor, associate professor and director of public health nursing, to the United States Public Health Service.
- Dr. Rodger W. Howell, associate professor of psychiatry, to the University of North Carolina.

The vacancies created by these resignations have been partially filled by promotions, but up to the present time it has been impossible to make satisfactory replacements in several positions.

The reasons for these and other resignations have been in part salary, and in part more attractive opportunities at the other institutions. Offers of positions elsewhere to members of this staff are a compliment to this University. On the other hand, the loss of a number of senior faculty members is cause for concern in relation to the maintenance of the high standards which have been established for the Medical School. Recent reports on the incomes of physicians in Minnesota indicate that the average salary of professors in the Medical School is less than the average net income of physicians in the state. The problem is a serious one and substantial salary increases must be provided if the quality of faculty which this College must have is to be retained and attracted.

Endowed Professorships—During the past year the Medical School received two additional endowed professorships. This brings to five the number of these professorships in the College of Medical Sciences, each of which makes a substantial contribution to a high level of scholarship and scientific work. These endowed professorships are as follows: The George C. Christian Professorship in Cancer Biology; the Mayo Professorship in Public Health; the American Legion Professorship for Research in Rheumatic Fever and Heart Disease in Children; the George S. Clark Research Professorship in Medicine; and the George C. Dittman Professorship in Otolaryngology.

Graduate Medical Education—Training of specialists for the various fields of medical practice and for medical teaching and investigation is a responsibility of a true university. In the Medical School such training has long been

a major interest and activity, and during each year of the past biennium approximately 500 graduate students have been training in the various basic sciences and clinical specialties of medicine. Our valuable affiliations with the Minneapolis General Hospital, the Ancker Hospital of St. Paul, the Minneapolis Veterans Hospital, and several private hospitals of the Twin Cities have been continued for graduate training in the clinical specialties. Of very great value for the advanced training of specially selected graduate students have been the fellowships and traineeships which have become available during the past few years. Among these have been the special Markle Foundation Scholarship, the United States Public Health Service Research and Training Fellowships and Traineeships, the American Cancer Society Fellowships, the American Heart Association Fellowships, the Life Insurance Foundation Fellowships, etc. A considerable number of promising teachers and investigators have received the benefit of these special fellowships during each year of the past biennium.

Continuation Medical Education—The program of continuation education in medicine and related fields has continued to be a major activity of the College of Medical Sciences. During the biennium 45 courses for physicians were offered in the Center for Continuation Study on the campus and 30 courses were arranged in various communities throughout the state. A total of 3,179 physicians attended these courses. In addition 3,318 individuals attended 37 similar courses offered by other divisions of the College of Medical Sciences. These programs make an important contribution to better medical care and other health services in this area.

This program was inaugurated and effectively pioneered by Dr. William A. O'Brien and was further developed by Dr. George N. Aagaard who resigned during the past year to accept the deanship of the University of Texas Medical School in Dallas. Dr. Robert B. Howard, who was appointed to succeed Dr. Aagaard in this important position, has been directing this continuing program with vision and efficiency.

Very helpful in the development of these programs has been the substantial support which we have received for the past seven years from the Kellogg Foundation of Battle Creek, Michigan. That support has now come to an end but the program should be able to continue on a self-supporting basis.

Medical Research—Research is today universally accepted as an important activity of a strong and progressive university or medical school. In the area of medical research the faculty of the College of Medical Sciences has been exceedingly active and productive. The grants and funds made by national scientific bodies to the Medical School for the support of research rank well toward the top in the amount of grants made to the medical schools of this country. The research activities supported by these grants cover practically every field of the basic medical sciences and clinical investigations. The largest research programs, however, have been in fields of cancer, poliomyelitis, and heart disease and related conditions. During the year several members of the faculty received national and international recognition for their scientific work. Although in recent years research funds have become available in substantial amounts, medical research has been seriously handicapped by the lack of facilities. The completion of the Heart Hospital, the top floor of which is devoted to research laboratories, has proven to be of great assistance for research in this area. However, the research programs in cancer and various other fields will continue to be handicapped by inadequate facilities until the completion of the Mayo Memorial building and the Elias P. Lyon Laboratories.

School of Nursing—The increase in demand for medical and health services in recent years has intensified the need for nurses. Toward meeting this need, the University has offered through the School of Nursing various programs for the preparation of practical nurses, graduate nurses, public health nurses, nursing educators, and specialists and supervisors in the various fields of clinical nursing. During the past year with encouragement and financial support from the Kellogg Foundation, a new program in nursing service administration was inaugurated. The director of the School of Nursing will submit a special report on the activities of this School.

School of Public Health—The youngest of our schools in the College of Medical Sciences, the School of Public Health, is truly an international institution. Of 250 full-time students during the past year, less than half were from the state of Minnesota; the rest were drawn from 34 other states and 18 foreign countries. The School of Public Health offers programs of instruction and training for health officers, public health engineers, public health nurses, public health educators, and hospital administrators.

In addition to providing professional training in public health, this School offers instruction in personal hygiene, public health, and biostatistics to thousands of students of other divisions of the University. This School also carries as a special activity the Laboratory of Physiological Hygiene, a distinguished research unit, nationally and internationally known for its studies on human starvation and on the development of cardiovascular disease. The School of Public Health is greatly handicapped by scattered and inadequate facilities for offices and laboratories. The Mayo Memorial will correct this by providing two and a half floors of the tower portion of the building for this purpose.

Medical Technology—A four-year course in medical technology continues to give the best of training for between 50 and 60 able young women who each year enter training in this important field of medical service. All the graduates of this course are offered attractive opportunities for employment before graduation. In fact, the demand for our graduates so far exceeds the supply that we should have 20 to 30 more students per class.

Physical Therapy and Occupational Therapy—The courses in physical therapy and in occupational therapy were inaugurated during World War II to help meet the growing national need for trained workers in these fields. Both courses are four years in length and lead to the bachelor of science degree. Current facilities necessitate a limitation of 24 students per class, both in physical therapy and in occupational therapy. Applications for both programs far exceed the places available. Fortunately, the new Mayo Memorial will improve the situation since two floors of the tower portion of the building will be devoted to a Rehabilitation and Physical Medicine Center.

University Hospitals—The University Hospitals and Outpatient Department constitute an important unit of the College of Medical Sciences. Originally, they were established primarily to provide clinical facilities for the training of physicians. Over the years, not only have they served this purpose well, but they also have provided training opportunities for nurses, medical technologists, physical therapists, occupational therapists, hospital dietitians, medical and psychiatric social workers, clinical psychologists, and hospital administrators. In addition, the Hospitals and the affiliated Outpatient Clinics play an important role in providing specialized medical services to the economically less fortunate people of the state. The director of the University Hospitals will submit a special report of the services rendered by the Hospitals.

Opportunities and Problems—The opening of the Variety Club Heart Hospital, which was completed during the past biennium, provides a splendid opportunity for research, teaching, and service to patients with various types of heart disease. No similar institution exists anywhere in the United States. The University of Minnesota is therefore presented with a unique opportunity for distinguished achievements in this field. Heartening also is the progress which is being made on the construction of the Mayo Memorial. This splendid addition to the facilities of the Medical School and University Hospitals is being made at a cost of approximately eleven million dollars. Unfortunately, plans were not completed and construction contracts awarded until after the substantial increase in building costs which followed the outbreak of fighting in Korea. As a result it was necessary to reduce the size of the building and to eliminate many desirable features of construction and equipment. Particularly disturbing was the elimination from the building of the two floors for the Medical-Biological Library, and the two floors for the Department of Pathology. It is hoped that a building such as the one proposed some years ago for the Medical-Biological Library can be constructed in the near future to meet this particularly important need.

Also eliminated from the Mayo Memorial building were the four floors for cancer and heart research. To compensate for this, plans have been made

and contracts awarded, with funds specifically provided for this purpose, for the construction of a special research building along Washington Avenue, joining Millard Hall and the Anatomy Building. This building will provide laboratories for these research activities at considerably less expense than would have been required to provide them in the tower of the Mayo Memorial building. The contract calls for the completion of this building by July 1, 1953.

Other important physical needs of the College of Medical Sciences include the remodeling of Millard Hall and the Anatomy building, and the construction of a residence hall for hospital interns and fellows. Millard Hall and the Anatomy building were constructed approximately forty years ago and are in great need of renovating and remodeling. Furthermore, the completion of the Mayo Memorial building and the Medical Research Laboratories will be followed by several departments moving their research activities from Millard Hall to the new building. This will make possible the reassignment of considerable space in Millard Hall and will necessitate the reconditioning of laboratories and classrooms to serve the new purposes to which they will be devoted. A residence hall for interns and fellows, adjacent to the University Hospitals, consisting mostly of small apartments for married couples, is urgently needed not only to provide decent living conditions for these young physicians and their wives but also to enable them to render better clinical service to the patients of the University Hospitals and to profit more richly from such service by reason of living nearby instead of many miles away.

The other major problems facing the College of Medical Sciences are concerned with the demand for more professional personnel in the various health services: physicians, nurses, medical technologists, physical therapists, occupational therapists, etc.; with the recruitment and the retention of an adequate faculty for the conduct of the training programs in the various fields; with the effective prosecution of medical research; and with the discharge of our service responsibilities. The problem of increasing the number of trained personnel in these various health services is in part a problem of recruitment, particularly in nursing and medical technology, and in part a problem of adequate staff and facilities to permit satisfactory instruction of larger numbers of students. Facilities for larger classes in physical therapy and occupational therapy will be available with the completion of the Rehabilitation and Physical Medicine Center in the Mayo Memorial. To increase the size of medical classes will require the remodeling and the enlargement of teaching laboratories for the basic medical sciences in Millard Hall and the Anatomy building. The expansion of staff to carry larger teaching programs and to operate larger clinical facilities which will be available with the completion of the buildings now under construction will require additional budgetary support. Vitally important also is the necessity of increasing the salaries of the faculty which has made the University of Minnesota a distinguished institution in the medical and health fields. Losses of faculty members in the recent past give warning that staff salaries must be improved if the quality institution which the state of Minnesota has a right to expect is to be continued.

School of Nursing

Nursing Needs—The U. S. Department of Labor has declared nursing a critical occupation. The demand continues to skyrocket for nurses in the expanding hospital and community health programs, the Armed Forces, the Veterans Administration, public health agencies, industry, and in homes. Critical shortages exist in all categories of nurses, the real bottleneck being found among teaching, supervisory, and administrative personnel. The estimated additional need for teachers of nursing, for example, is 12,000.

Programs—The programs being offered at the close of the biennium in the School of Nursing, and cooperatively with other colleges, to meet these needs are outlined briefly.

Graduate Professional Nurses—Two Master's programs—master of education in nursing education and master of nursing administration—were established to prepare teachers and administrators for basic, practical, and advanced programs in nursing schools and in nursing services. The certificate

curriculum in psychiatric nursing has been continued to provide personnel for the state mental health program. The baccalaureate curriculum in nursing education designed to prepare head nurses, supervisors, and instructors in nursing, with its various minors—ward administration, science teaching, child care, advanced clinical nursing—has continued to attract the largest number of registrants. The advanced clinical minor may be in medical, surgical, pediatric, obstetric, operating room, psychiatric, rural, or tuberculosis nursing.

Basic Professional Students—The revised degree program (sixteen quarters) and the programs for affiliating students have seen a steady growth in meeting needs for practitioners of nursing.

Practical Nurse Students—The four-quarter program in practical nursing and the six-quarter program combining practical nursing with home management have witnessed a heartening development, providing preparation for practitioners of practical nursing and a controlled practice field for teachers of nursing. In addition, a two-quarter sequence of preclinical instruction was planned for students in hospital schools of nursing, and extension, summer session, and extramural courses were offered.

Clinical Assignment of Students—Master of education students have been assigned as associate teachers in the University of Minnesota and Minneapolis General Hospital schools of nursing. Nursing service areas of the University, Charles T. Miller, Minneapolis General, and Fergus Falls (state) hospitals have been used for supervised field experience for students in the Master's program in nursing administration. Student teachers in the baccalaureate program in nursing education have done their practice teaching in the University, Abbott, Deaconess, Fairview, Charles T. Miller, Minneapolis General, Northwestern, St. Barnabas, St. Catherines, and Swedish schools of nursing. Students with a minor in ward administration have had supervised field experience in Fairview, Swedish, Minneapolis General, and University Hospitals. In addition to the opportunities offered by the University of Minnesota medical facilities, field experience has been arranged in public health agencies, medical services of Indian reservations, rural hospitals, private hospitals of the Twin Cities and Rochester, nursing homes in the Twin Cities, and other selected agencies. Basic professional nurse students, in addition to major clinical assignment in the University Hospitals, had selected clinical experiences in the Charles T. Miller Hospital (St. Paul); the Glen Lake Sanatorium; Maternity Hospital (Minneapolis); the Swift County-Benson Hospital and community (Benson); the Family Nursing Service of St. Paul; the Visiting Nurse Association of Detroit, Michigan or Des Moines, Iowa; and the Community Health Service of Minneapolis. Reduction to thirty for basic professional students in weekly clinical assignment hours, made possible through increased appropriation for graduate nurse service in the University Hospitals, has been gratifying to students and faculty. This reduction has enabled students to participate more effectively in essential educational experiences provided by the new curriculum, the purpose of which is to prepare nurses to appreciate and minister optimally to all health and illness needs of patients and families, emotional and spiritual as well as physical.

Students in practical nursing had supervised experience in the University Hospitals, including the Variety Club Heart Hospital, and in the Minneapolis Walker Methodist Home. Students in practical nursing and home management had supervised clinical experience in the University Hospitals, including the Variety Club Heart Hospital, in the Minneapolis Ebenezer Home, and in a rural community—Benson, Wadena, Stillwater, Glencoe. The availability of such widespread facilities is indicative of the cooperation and the generosity of agencies throughout the state and, indeed, wherever in the country facilities are needed.

Financial Support—The University provided \$154,094 for support during the biennium. Except for one instructional salary, federal funds (totaling \$57,175, not including stipends) met all instruction and related costs in psychiatric nursing. Advanced clinical nursing instruction has been supported during the past seven years by a five-year grant from the W. K. Kellogg Foundation and by other special funds raised largely through the efforts of Dr. Donald J. Cowling. Beginning July 1, 1951, a five-year grant of \$98,292 was given by the

W. K. Kellogg Foundation to expand the nursing administration program. In 1951-52 the outside support of the School represented 45.5 per cent of the total budget.

Faculty—Faculty members have served in local, state, national, and international professional organizations as members, as committee chairmen, and as officers. They have participated in and directed institutes, workshops, conferences, and meetings. They have served as consultants in their respective fields with important local, state, and national agencies and organizations. Many of them, as well as students, serve as active members and officers of national scholarship societies. Several had educational leave for advanced study; a few received special awards, including the highest Isabel Hampton Robb and Sigma Theta Tau scholarships ever to be granted.

Students—During the biennium the enrollment in the basic professional nursing program increased markedly (47 admitted in fall 1950, and 71 in fall 1951) and now that program enrolls a larger number than any other degree program in the state. Enrollment in the practical nursing programs has stabilized at about 25 in the four-quarter program and about 12 in the six-quarter program. About 150 graduate nurses are enrolled each year in the advanced programs in nursing. In 1950-51 the Nurses' Student Government Association reorganized into two boards—the Nursing College Board to care for School student business and the Powell Hall Governing Board to care for residence business. Activities of these boards included fund raising to provide money for scholarships, sending students to state and national nursing and student nurse conventions, an extensive social program, sponsorship of campus queens, homecoming and carnival floats and booths, campus fund drives, a residence publication, and recognition night. Among the 40 outstanding women students on campus in 1951-52 were 4 students in nursing. The Order of Ski-U-Mah was awarded to 3 nurse students and each year a student was elected to Mortar Board. During 1951-52 the Campus Nurses' Club, the graduate nurse student organization, maintained active social and service programs.

Research and Studies—A *Study of Graduates of the University of Minnesota School of Nursing*, published by the University of Minnesota Press in 1951, analyzes the findings of a study made possible through grants from the W. K. Kellogg Foundation.

A monograph, *Minnesota Rural Nursing Programs for Students in Nursing*, was published in 1952 as a contribution of the faculty of the School of Nursing to the Centennial celebration of the University of Minnesota. A similar plan of preparing students to give better nursing care in rural communities has since been adopted in a number of schools in other states. The program, at first a demonstration project of the School of Nursing, continuing under the administration of the School of Nursing, has been expanded to a statewide program. Studies of student career and school selection, of faculty activities, of nursing care, and of nursing education continue under the direction of a special committee on research.

Accreditation—The University of Minnesota School of Nursing qualified for accreditation by the National Nursing Accrediting Service and has membership in the new National League for Nursing. The June, 1952 profile of the School by the National Nursing Accrediting Service indicated that in state board examinations the School of Nursing placed, in all nursing subjects, at one-hundredth percentile of the 116 degree-granting schools of nursing participating in the examination.

Rural Nursing—The University of Minnesota School of Nursing continues to administer the rural community nursing affiliation program, which is open to all schools of nursing in the state. The program has as one of its objectives the stimulation of interest among students in the advantages of rural nursing. The number of participating urban schools has increased from six to eight during the biennium. Sending schools are Bethesda, Hamline University, Lutheran Deaconess, Minneapolis General, Northwestern, St. Catherines College, College of St. Scholastica, and the University of Minnesota. Receiving communities are Grand Rapids, Bemidji, Worthington, Hibbing, Stillwater, and Benson.

Needs—The major need in the coming biennium and for the future is for University support of instructional programs financed during the past seven years by sources outside the University. Total personnel needs in nursing, nursing education, and secretarial staff include instructors in introductory nursing, rural nursing, outpatient and community nursing, surgical nursing, operating room nursing, maternity and gynecologic nursing, pediatric nursing, psychiatric nursing, preparation of teachers; a secretary. In addition, there is need for unassigned instruction funds to meet small emergency instructional needs. Another pressing need is for adequate office, laboratory, and storage space. This will be crucial with the razing of the temporary building which now provides conference rooms, laboratories, storage space, and housing for more than half of the faculty and staff.

The School of Nursing is appreciative of the support given by the University Administration during a period of general retrenchment. The increasing need of people for health services and the continuing demand for more and better prepared personnel poses a challenge to the University to make possible an even greater contribution to education for nursing—KATHARINE J. DENSFORD, *director*.

School of Public Health

The biennium has seen a steady expansion of the program of the School of Public Health but little change in its activities. The graduate program leading to the degree of either the master of public health or master of hospital administration has grown steadily but this growth has been largely offset by a decline in the undergraduate program in public health nursing. The accompanying table indicates the changes in enrollment.

FALL QUARTER ENROLLMENT

	1948	1949	1950	1951
Graduate program				
Master of Public Health	52	66	80	81
Master of Hospital Administration	45	52	55	59
Undergraduate				
Public Health nurses	171	174	140	114
Totals	268	292	275	254

The graduate program has attracted students from 34 foreign countries and 39 states, whereas students have come to the undergraduate program from 14 foreign countries and 34 states. This wide distribution of students has given a cosmopolitan character to the School and the students have gained a broader insight into a greater variety of public health problems—a far more valuable educational experience than if all of the students were from Minnesota.

The graduate program has virtually reached the physical and staff limits of the School in most fields. Each year about 30 students have been chosen in hospital administration from over 200 applicants. The number of applicants for graduate work in sanitation, public health nursing, health education, and public health veterinary work has been larger than the School can well accommodate, but all really well-qualified applicants have been accommodated. The number of physicians seeking graduate work in public health continues below capacity, as in all schools of public health.

The undergraduate program in public health nursing has declined sharply in enrollment. Part of this is attributed to drops in nursing enrollment throughout the nation and is shared by all other universities offering accredited programs in public health nursing. An even further decline is to be expected in future years with the University's discontinuance of its five-year course in nursing which brought a large number of students into the School of Public Health for their fifth year of work. The new "integrated" program has reduced the enrollment in public health but at the same time increased the class load. Only time will tell whether or not this new program constitutes an adequate substitute for the former five-year program with a major in public health nursing.

Undergraduate instruction in the broad field of health and hygiene has shown a far smaller drop than might have been expected from the general university decline in enrollment. The services rendered to other parts of the university through such courses and through the courses in biostatistics continue to overtax the small staff available for this work in the School of Public Health.

During the past biennium the research programs within the School have been expanded. Special grants have been obtained for studies in cardiovascular diseases, tuberculosis, poliomyelitis, global epidemiology, hospital administration, toxic algae in water supplies, and spread of food infections by vermin. Limitations of staff and space preclude expansion of the research program.

The most urgent needs of the School are for staff. Surveys of schools of public health carried out independently by the U. S. Public Health Service and by the American Public Health Association show that Minnesota has the smallest per capita expenditure for graduate students and the smallest faculty-student ratio. The expenditure per student was barely half the national average and barely one-fourth that of one university. Such data mean simply that the staff of the School is carrying a far heavier teaching burden than is found in other schools. Such a burden is inevitably reflected in the amount of research produced and the ability of the School to attract and retain staff.

With the completion of the Mayo Memorial, the School will obtain relief from its present cramped and scattered quarters but the problem of staff will remain. Until this is met the School will be operating below the desirable level of efficiency.—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 University Hospitals—a series of hospitals having a rated capacity of 450 patients.)

The Variety Club Heart Hospital was opened to patients during the first year of the biennium, and the first patients with heart disease were admitted on March 18, 1951. This new hospital is an integral part of the University of Minnesota Hospitals, and patients are admitted through the Main Hospital Admission Office. Both pediatric and adult patients are given complete physical examinations before referral to the Heart Hospital for special care. Cardiac patients may be treated on an out-patient basis or may be referred to one of the in-patient services. All patients admitted to the Heart Hospital are referred by the family physician in the same manner as other patients referred to the University Hospitals.

The Out-Patient Department of the Heart Hospital has a waiting room, eight examining rooms, a fluoroscopic room, laboratory, ECG and BMR rooms. The Minneapolis School Heart Clinic is a part of the out-patient clinic service for children. Adult clinics are held on Monday, Wednesday, and Friday.

Approximately 80 patients can be accommodated in the Heart Hospital, and complete in-patient services are available—including occupational therapy, social service, and a library for patients.

The Variety Club Theater is a part of the Heart Hospital facilities and can be used to show full-length movies, and on its completely equipped stage other types of entertainment are offered patients.

The Variety Club Heart Hospital was made possible by funds provided by the Variety Club of the Northwest, the United States Public Health Service, and the University of Minnesota. The fourth floor of the Heart Hospital provides facilities for research and study in the causes, prevention, and treatment of rheumatic fever and heart diseases, especially those affecting children. This program is sponsored by the American Legion and Women's Auxiliary, Department of Minnesota. The Clark Professorship provides for research in cardiac and cardiovascular diseases as related to the older age groups.

A new child psychiatric unit, eventually to provide patient space for 24 patients and an out-patient service, will be opened on October 1, 1952. Funds have been provided by the Legislature for the operation of this unit on a limited scale for the year 1952-53, and hopes are strong that a complete unit will be made available for the next biennium.

The Mayo Memorial Medical Center will provide much needed space for an expanded research and teaching program, in addition to providing for approximately 170 beds to become part of the in-patient service. With these expanded facilities the University of Minnesota Medical School 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 medical field.

Often the question arises, "Just how large should the University Hospitals be?" The University and the faculty of the Medical School, it appears, agree that the Hospitals should be large enough to do their job of teaching 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.

The University Hospitals assume the responsibility for providing the clinical laboratory facilities for undergraduate students in medicine, graduate students in medicine, postgraduate students in medicine, graduate students in nursing, undergraduate students in the degree course in nursing, practical nursing, and practical nursing and homemaking, undergraduate students in nutrition and dietetics, undergraduate students in physical therapy, occupational therapy, social service, pharmacy, medical technology, and others.

The number of students involved in training programs such as accomplished by the groups listed above requires that there be 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. None would be interested in having a training program unless the best care or the best methods of teaching were involved.

The University Hospitals present a great competitive unit for the funds of the state that are available for education. Consequently, the University would gladly divest itself of responsibility for the Hospitals were they not essential in the training program of professional personnel for the care of the sick. The University Hospitals studiously avoids competition with private practice, regarding it as unfair to train a physician and then unfairly compete with him. The staff, I am sure, is aware of this attitude and cooperates wholeheartedly.

Admission Policy—In applying for admission to the Hospitals (including the Heart Hospital) it is required that the patient be referred by his family physician or by a physician in his local community. This rule avoids the criticism that the Hospitals or its 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, Private, and, in the case of the Heart Hospital, the Variety Club of the Northwest Fund. There is no distinction 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. When applying for either out-patient or hospital care, these patients must present county papers filled in by both their physician and their county commissioner (or his representative).

Per diem patients are those who cannot afford to pay for the services of both a private physician and a private hospital. When applying for either out-patient or hospital care, these patients must present a special form filled in by themselves and their family physicians. They are required to pay their clinic or hospital expenses only, no charge being made for the professional services of the staff. From the standpoint of money received by the hospitals, there is no difference between a county patient and a per diem patient; consequently, the services and privileges tendered both are identical.

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.

Similarly, the *Child Psychiatric Fund* is a special grant from the Legislature which is used to hospitalize indigent children with psychiatric problems.

The *Eustis Fund* was set up by William Henry Eustis to care for indigent children under 16 years of age.

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. They are afforded the same treatment and privileges as are private patients in any private hospital.

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. Patients may be admitted for care on this fund on the usual recommendation of a physician. The Variety Club itself may at times wish to indicate and request service for certain patients in which they have a special interest, care to be paid for through this fund. No charge is made for the professional services of the staff—only for clinic or hospital expenses.

University Health Service patients are not considered as being Hospitals patients even though a Hospitals intern is assigned to that service. The University Health Service has its hospital quarters in the University Hospitals but is not a part of either the University Hospitals or the Medical School. It is a service institution maintained by the University with a director, staff, and budget of its own. The new University Health Service is located on Church Street west of the Hospitals. This provides out-patient care only. The infirmary continues to occupy the fourth floor of the north wing of the Hospitals.

In-Patient Department—The number of patients admitted was 10,831 for the year 1950-51 and 11,444 for 1951-52—an increase of 613. The total number of days of hospital treatment aggregated 142,885 for 1950-51 and 153,224 for 1951-52—the largest in the history of the Hospitals. The average number of days per patient stay was 13.3 in 1950-51 and 13.4 in 1951-52. Deaths for 1951-52 numbered 479 as compared with 459 the previous year. This is a mortality percentage of 4.1—the same as for 1950-51. (The figure for deaths includes stillbirths and coroner's cases.) Post-mortems for the year 1950-51 numbered 341, an average of 81 per cent of deaths, and in 1951-52, the number was 363, an average of 81 per cent.

The daily average number of patients was 391 in 1950-51 and 418 in 1951-52. Surgical operations performed during 1950-51 aggregated 7,783 and during 1951-52, 7,441—a decrease of 342.

Out-Patient Department—The number of new-patient visits was 16,113 in 1950-51 and 18,902 in 1951-52. Total patient visits were 100,656 for 1950-51 and 99,501 for 1951-52.

General Comments—The In-Patient service showed an increase of 10,339 patient days over last year, and the Out-Patient Department a decrease of 1,155 visits.

The Psychopathic Department admitted 287 patients during 1950-51 and 290 in 1951-52. The patients in the Psychopathic Hospital used 9,738 patient days in 1951-52 as against 9,605 during 1950-51.

The waiting list of the Hospitals showed 152 patients on July 1, 1952.

In the Out-Patient Department the cost per patient visit was \$4.09 in 1950-51 and \$4.35 in 1951-52, an increase of 26 cents per patient visit. The cost of operating the In-Patient Department was \$18.86 in 1950-51 and \$21.74 in 1951-52, an increase of \$2.88 per patient day.

The X-Ray Department reports 62,968 procedures for the year 1951-52 as against 65,670 for the year 1950-51.

The Department of Deep X-Ray Therapy gave 8,031 deep therapy treatments during 1951-52 as against 7,494 in 1950-51. There were 1,113 superficial therapy treatments given in 1951-52 and 1,126 in 1950-51.

COLLEGES AND SCHOOLS

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IN-PATIENT DEPARTMENT SUMMARY

	1950-51	1951-52
Total patients admitted		
Private	2,696	2,728
Per diem	1,899	2,330
Eustis	162	162
Teaching and Research	171	143
Staff	107	89
County	4,259	4,838
Health Service	1,085	843
Psychopathic	156	155
Private	93	58
Per diem	52	79
Variety Club Heart Hospital Fund	151*	19
	10,831	11,444
Total patients treated (discharged)		
Private	2,617	2,652
Per diem	1,834	2,163
Eustis	182	183
Teaching and Research	181	145
Staff	107	85
County	4,406	4,980
Health Service	1,083	843
Psychopathic	171	199
Private	84	65
Per diem	46	50
Variety Club Heart Hospital Fund		24
	10,711	11,389
Total days hospital care		
Private	23,726	21,536
Per diem	23,207	26,578
Eustis	2,709	2,395
Teaching and Research	2,230	1,404
Staff	467	452
County	76,241	86,868
Health Service	4,370	3,167
Psychopathic	5,977	5,828
Private	2,252	1,961
Per diem	1,635	2,422
Variety Club Heart Hospital Fund	71	613
	142,885	153,224
Average days per patient		
Private	9.0	8.1
Per diem	12.6	12.2
Eustis	14.8	13.0
Teaching and Research	12.3	9.6
Staff	4.3	5.3
County	17.3	17.4
Health Service	4.0	3.7
Psychopathic	34.9	29.2
Private	26.8	30.1
Per diem	35.5	48.4
Variety Club Heart Hospital Fund		25.5
Average length of stay per patient	13.3	13.4
Daily average number of patients		
Private	65.0	58.9
Per diem	63.5	72.8
Eustis	7.4	6.5
Teaching and Research	6.1	3.8
Staff	1.2	1.2
County	208.8	237.7
Health Service	11.9	8.6
Psychopathic	16.3	13.2
Private	6.2	5.3
Per diem	4.4	6.6
Variety Club Heart Hospital Fund		1.6
Daily average census for hospitals	391	418

* Represents transfers to the Heart Hospital—carried as admissions in bookkeeping report.

The number of hospital prescriptions filled was 109,430 in 1951-52 and 112,058 in 1950-51. For the Health Service and Out-Patient Department the year 1951-52 showed 34,562 prescriptions filled as against 35,570 for the previous year.

The Laboratory made 402,416 determinations during the year 1951-52 as against 411,344 the previous year.

The Physical Therapy Department reports 23,825 treatments for the year 1951-52 and 25,194 treatments for 1950-51.

The administration of the Hospitals wishes to thank the National Foundation for their assistance in connection with poliomyelitis; the Variety Club for their support to the Heart Hospital; the University 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 which year after year continues to provide entertainment, gifts, and cheer to our patients at Christmas; the Sunshine Club for its contributions; the Camp Fire Girls, the Girl Scouts, the Needlework Guild, the Junior League, the Federated Church Women, and the Gilfillan Fund of the Mayo Clinic. We wish also 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, M.D., *dean*

SCHOOL OF DENTISTRY

The Board of Regents, during this biennium, has approved a change in name of the dental building from Medical Sciences to Owre Hall. This honors the late Alfred Owre, professor and dean of the School of Dentistry, 1905 to 1927.

Students—The supply of well-qualified students requesting entrance to the School of Dentistry has continued. One hundred dental students have entered each year, and their performance in the School has been exceptionally commendable. There has been an erosion in each of our classes of between 10 and 15 per cent—most of which has occurred during the freshman year.

Conditions in the clinic, due to the larger classes, continue to be a serious problem. It seems impossible to schedule as many as 20 to 35 students on certain half-days during the week. However, student performance in clinical subjects and their accomplishments continued to improve. There has been an increase during the past two years in student performance of approximately 20 per cent over the previous year.

Facilities—Two new clinics have been added to the School and provide excellent facilities for clinical training in the fields of dentistry for children and orthodontics. The School has continued to place more emphasis on preventive measures in the design of its curriculum, and greater emphasis on dental care for the child. The new clinic for dentistry for children is a separate room with a waiting room specially designed for children. There are 16 operating units, 2 of which are located in isolated rooms.

Orthodontia training is also housed in new quarters with especially adapted equipment. Most of the training in this field has been centered around postgraduate and graduate students. Facilities for training students have been increased from 6 to 14 units. However, many more than 14 students may be in training at one time, using the same facilities on varying schedules.

Faculty—No great changes due to retirement or loss of faculty to other schools have occurred during the biennium. There has been one notable addition: the appointment of Dr. Helmut A. Zander to the chairmanship of the Division of Periodontia. Dr. Zander is well prepared, through special study in pathology and bacteriology and many years of experience in research in biological problems related to dentistry, to attack the problem of the diseases of the supporting tissues of the teeth from a biological standpoint.

A new laboratory for the study of pathological conditions of supporting tissues of the teeth has been established in the School and some space on the top floor of Owre Hall has been made available for animal quarters.

Graduate Education—Interest in graduate study in dentistry continues, but due to the length of the undergraduate dental curriculum and the increased age of candidates for graduate study most of our candidates require some financial assistance in order to pursue advanced work. This has decreased the number of students pursuing the graduate course.

Continuing Education—Postgraduate courses continue to be popular and are offered in accordance with the availability of facilities at the School. However, demands made by the profession for such study cannot be fulfilled because of the shortage of facilities and faculty.

During the biennium the School has carried a series of lecture programs to various communities throughout the state. The enrollment in these courses has been high, and they have proven popular. However, the current retrenchment program of the University has seriously hampered the dental faculty, and such activities, important as they are, may have to be curtailed because of staff shortages.—WILLIAM H. CRAWFORD, *dean*.

LAW SCHOOL

During the biennium, the total enrollment in the Law School continued to decline from the high reached in 1948. For the fall of 1950, the enrollment was 482, and in the fall of 1951 it was 403. This compared with a high of 797 reached in 1948, and with a normal prewar enrollment of from 300 to 350.

The reduced enrollment permitted the School to return to more normal functioning and to carry forward the recommendations of the Law Faculty Curriculum Committee designed to further implement the objectives of the four-year law school program to which the School is committed. Seminars were introduced and included municipal corporations, future interests, criminal law, international law, estate planning, and regulatory law. Some of these replaced courses previously given on the same subject. The faculty has adopted the requirement that one seminar should henceforth be required for graduation of all students on the four-year program. This resulted from the satisfaction felt with the seminar program thus far.

For those entering the Law School in the fall of 1953 and thereafter, the faculty increased the period of law study from three to three and one-half years in order to permit the inclusion of a substantial part of the training developed for the four-year course.

The trend nationally in legal education is toward more individual work on the part of the student through research, writing, and tutorial instruction. In most leading schools this has been implemented by the employment of teaching assistants and expanded teaching staff. In this respect this School was handicapped by the retrenchment program which necessitated the elimination of one unfilled position and of most of the teaching assistants. This was the more severely felt since the School operates with a comparatively small instructional staff.

Effective in 1952, the American Bar Association revised its standards for approval of law schools by increasing the total period of study required, including prelegal and legal, to six years. The full impact of this step had not been felt at the close of the biennium. A substantial number of schools adopted in consequence a four-year program patterned on the Minnesota plan.

The demand for graduates of the School continued high. This was a product in part of the Korean War and the resulting flow of young men into military service. There was some reduction in the enrollment of the School as well as in the total enrollment nationally in law schools. In addition, a substantial percentage of graduates went directly into service at the conclusion of their legal training. The location of those who remained was facilitated by the assistance given by the placement service of the School.

The law library at the close of the year had risen to a total of approximately 185,000 volumes. As indicated in the previous biennial report, the space

in Fraser Hall has reached a critical condition and additional space is an urgent necessity.—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
1950-51	65	412	389	353
1951-52	35	337	311	285

Graduate Enrollment—Graduate students with majors in pharmaceutical chemistry numbered 20 in 1950-51 and 21 in 1951-52. Each year there were 2 students who majored in pharmacognosy. Two students in 1951-52 minored in pharmaceutical chemistry.

Graduates—Undergraduate and graduate degrees awarded during the biennium are shown in the following table:

Year	B.S. in Phm.	M.S.	Ph.D.
1950-51	81	0	4
1951-52	77	1	2

Curriculum—No major changes were made in the professional part of the curriculum during the biennium.

Faculty—Assistant Professor Ragnar Almin resigned from the staff on September 15, 1951. Robert Miller, formerly assistant professor of pharmaceutical chemistry at the University of Washington, succeeded him on a temporary appointment. Mrs. Ruth Livingston (B.S. in Pharmacy, University of Minnesota, '21) was appointed student pharmacist supervisor to fill the vacancy caused by the resignation of William Trumm.

Scholarships and Fellowships—Nine Samuel Melendy Memorial Scholarships of \$200 each were awarded in 1950-51 and 10 in 1951-52. One student each year was awarded a Minnesota State Pharmaceutical Association Scholarship of \$225.

Five graduate students in 1950-51 and 3 in 1951-52 received Samuel W. Melendy Memorial Fellowships of \$1,000 each. In addition, 3 graduate students in 1950-51 and 7 in 1951-52 were awarded fellowships by the American Foundation for Pharmaceutical Education.

Pharmacy ROTC—Major William Luehrs, MSC, replaced Colonel Leonard P. Zagelow, MSC, as assistant professor of military science and tactics. During the biennium 21 students who received the B.S. degree in Pharmacy were commissioned as second lieutenants in the Medical Service Corps Reserve. Six students who had completed the courses in MS&T made application to withdraw from the ROTC and not be required to accept a reserve commission. All cases were referred to the all-University Disciplinary Committee. Three of the applications were approved and three rejected. All six applicants had seen prior military service.

Following are the enrollment data for Pharmacy ROTC:

Course	1950-51	1951-52
I (basic)	71	71
II (basic) .....	.....	30
III (advanced)	30	33
IV (advanced) .....	.....	18

Continuation Study—Continuation courses for licensed pharmacists were held in the Center for Continuation Study on February 19, 20, and 21, 1951, and March 3, 4, and 5, 1952. Fifty registered pharmacists were in attendance in 1951 and 49 in 1952.

Library—Approximately 473 books have been added by purchase or gift during the biennium. As of June 30, 1952, the total number of books and periodicals in the Pharmacy Library was approximately 7,373.

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 155 graduates of Minnesota were licensed to practice their profession.

As accurately as can be determined, approximately 80 per cent of the students receiving 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. Of the 6 individuals receiving their Ph.D. degrees, 3 entered the teaching profession, and 3 are research chemists with pharmaceutical manufacturers.—CHARLES H. ROGERS, *dean*.

COLLEGE OF EDUCATION

Overshadowing all other events in the College of Education during the biennium was the death of Dean Wesley E. Peik on December 6, 1951. For fourteen years, Professor Peik had served as dean of the College of Education, friend and informed adviser to the public school educators of Minnesota, and outstanding national leader in the improvement of the education of teachers. Tributes to his contribution in teacher education were received from all over the nation—from professional groups, from school and college administrators, and from classroom teachers. Within the College of Education, Dean Peik was regarded as a great democratic staff leader. Perhaps the finest tribute of all to his leadership came through the effective cooperation of the entire staff of the College in meeting together the problems of the interim before the appointment of a new dean.

During the last seven months of the biennium, a staff committee appointed by President Morrill, on nomination by faculty members, worked with the President on the problem of finding Dean Peik's successor. Related to the work of this committee were many thoughtful, forward-looking discussions of the problems and future of the College, with virtually all of the staff participating.

As the biennium ended, great satisfaction was expressed by all the faculty and friends of the College when the Board of Regents announced the selection of the new dean, Professor Walter W. Cook.

From the many activities and needs of the College of Education during the biennium, a few have been chosen for special comment.

The Student Personnel Office—The Student Personnel Office made good strides in carrying forward the program of continuing selection for students, following the plans of the previous biennium. Under this program, the number of students accepted for teacher education in overcrowded fields, such as social studies, has been reduced, and the number for such shortage fields as elementary education has been increased. After careful initial selection, involving tested abilities and attitudes, interviews, and assessment of previous records, the Student Personnel Office continued to confer with students and their advisers to insure that the end result at graduation would be the provision of soundly trained prospective teachers. The instructors in the introductory education courses of the junior year, the office of the director of laboratory experiences, and the counselors and advisers cooperated in additional selection of those students admitted to the senior year's practice work. In this biennium, the work of selection over the past few years has been evident in the morale and character of the students in the College.

Student-Faculty Committees—By unanimous vote of the faculty, student members were added in this biennium to all faculty committees dealing with policies affecting the undergraduate program. The selection of these student members has been carefully handled through cooperation between the dean and the Student Intermediary Board. First experience with the operation of this policy has shown that although students' ideas are useful in the work of our committees, plans need to be considered by students and faculty members together for the most effective use of the new members.

Laboratory Schools—The second year of the biennium saw the work under way on a new building which is to house the secondary laboratory school, as

well as meeting some other needs of the College. Professor Minard W. Stout, principal of University High School, resigned at the end of the biennium to accept the presidency of the University of Nevada, and Sterling Mitchell was appointed as his successor. In University Elementary School, the fourth and fifth grades were added during the biennium, and John Jarolimek was selected to serve as principal of the school.

Bureau of Field Studies and Surveys—In July, 1951, work was started in the Bureau of Field Studies and Surveys on the Minnesota School Facilities Survey, under allocation and grant from the State Department of Education. Appropriations for this work have been made from both the federal government and the state. The important on-going service of this Bureau to the schools of the state in the current state-wide emergency of building planning was continued through the biennium, with school building surveys completed in 19 communities, and partially completed in several others.

Bureau of Recommendations—Extensive service to the graduates of the College and to the schools of the state was shown in the handling through our Bureau of Recommendations of more than 6,000 vacancy notices in each year of the biennium. The numbers of registrants available for positions in each year fell far below the demand, as in the previous biennium. Placement of graduates in new positions reached an all-time high of 1,016 in 1951—an increase of 146 over the previous year's total. Some of the problems of the College and of the schools themselves are pointed up by the ratio of demand to supply in some of the shortage fields: elementary teaching, 9 to 1; business teaching, 10 to 1; library, 5 to 1; women's physical education, 6 to 1.

Bureau of Educational Research—The director and small staff of the Bureau of Educational Research give assistance to the faculty in designing research and providing clerical and statistical aid for research studies. Under this plan, the research work of the faculty is strengthened, and useful studies are carried to completion each year. A selection of the titles of research studies during the biennium shows the range of the work of this Bureau: Measurement of Teacher Morale; Development of Silent Reading Diagnostic Tests; Theory of Linear Hypotheses with Applications to Educational Problems; Studies in Rural Education; Comparison of Two Methods of Instruction in Beginning Drawing; Discovering Community Needs for Adult Classes in Homemaking; Analysis of Doctoral Examinations.

Counselor Training—We have been far behind other states in the provision of staff for in-service training of school staff members in counseling. At the beginning of 1950-51, the College added a full-time counselor-trainer to its staff, with salary and expenses reimbursed to the extent of 50 per cent under agreement with the State Department of Education. With this additional help, several sections of graduate courses for counselors have been offered in various towns of the state, regional conferences on counseling have been held, and extensive assistance has been rendered to the counselors and teachers of individual schools.

Retrenchment Problems—The College of Education, in common with all other colleges in the University, has faced difficulties under the budget retrenchment of this biennium. During the years of larger budgets, increases for the College of Education were not used, in the main, to cushion the services existent before the war or to relieve pressure on overloaded staff members by adding sections of courses or more teaching assistants. Instead, the College added services long requested by the schools of the state and recognized by the staff as essential in meeting our basic responsibilities. These included the Psycho-Educational Clinic, business and distributive education, a statistics laboratory, the elementary laboratory school, provision for doubled enrollment of students in elementary teacher education, and many other facilities. Consequently, meeting the necessary budget retrenchment meant losing some important positions, such as a professorship in social studies education and an additional needed professorship in educational administration, previously budgeted but not filled. Salaries of staff on leave of absence and funds from special course fees have been used to cover regular instruction and supervision of practice work, an emergency measure regarded as unsound but necessary under the circumstances.

Faculty Advisory Load—As shown by the studies of the Bureau of Institutional Research, the College of Education faculty stands very high in the number of state services it carries, and also undesirably high in the number of student advisees for each staff member. The advisory problem is especially acute in the graduate program, where much more staff time is needed than can be provided under the present budget. Excluding educational psychology, which registers many graduate students, all the other education fields registered approximately 15 per cent of the University's graduate students; but at the same time, they carried nearly one-fourth of the graduate students taking 5 credits or less. This means that the load of graduate students for whom advisory services must be provided is two to three times as heavy in the College of Education, in proportion to class-credit registration, as in any division registering mainly full-time graduate students. This is a problem difficult to meet in budget planning and allocation of funds, but it is one of which the Graduate School dean, also, is well aware.

Teacher Supply—For the fifteen years prior to 1946, each year's entering class in the first grade of the elementary schools was approximately the same size as its predecessor. The upswing in the birth rate began in 1940, however, and by 1946, the enrollment in the first grade showed the sharp rise which is still continuing. Nationally, the number of births increased 58 per cent between 1940 and 1951. In the state of Minnesota, the increase was over 30 per cent. Since 1946, consequently, there has been a severe shortage of qualified elementary school teachers, a situation which will be further aggravated by the continued increase in the number of pupils, estimated at one million each year until 1957. By 1954, the enrollment bulge will affect the high schools, and in 1963, the number of boys and girls of high school age nationally will be about one and one-half times the present number.

The seriousness of this problem for all teacher education institutions is obvious. For the College of Education, it means increased efforts to interest strong students in the teaching profession. It means increased consultative services to assist schools in handling their difficult problems. It means training more graduate students for administrative positions and for other areas of leadership and special service in the schools. We must attempt to enroll students for teacher education up to our capacity in every major teaching field, including all secondary school subjects. In elementary education, our instructional facilities are already overused in terms of desirable class size and advisory loads, and we cannot register increased numbers, in order to give further relief to the teacher shortage in the elementary schools, without increased budget provisions. The College of Education and the other divisions of the University cooperating in the education of teachers face in the years immediately ahead inescapable problems of staff load and program reassessment, in order that all may carry as well as possible their share of the responsibility for staffing and improving the schools of the state.—MARCIA EDWARDS, *acting dean*.

SCHOOL OF BUSINESS ADMINISTRATION

Economic and Business Research—The School of Business Administration was encouraged during the past biennium by a small initial grant from the Legislature for economic and business research. Naturally this was inadequate for the establishment of the Bureau of Business Research which has been dreamed of for many years, but as a vote of confidence from the Legislature it was a hopeful sign. The faculty decided that the best demonstration for use of such a grant would be a publication with wide appeal to the businessmen. To show its appreciation for this encouraging sign, the faculty contributed its services in the form of articles, and the appropriation was spent for printing, postage, and clerical help. The responses to the first issues were state-wide and heartening.

Two research projects were carried on for state agencies in areas which would be a natural function of a Bureau of Business Research. At the request of the Upper Mississippi and St. Croix River Improvement Commission a study was made of potential river traffic on the Mississippi River as it serves Minnesota. Another research study was undertaken for the Interim Legisla-

tive Committee on Aeronautics. This is a study of the needs and costs of a system of minor airports and air strips, to assist the committee in making recommendations to the next Legislature.

A pilot study on savings and capital formation among Minnesota companies was undertaken with private support. This study has led to other activities and potential research which may extend well into the future.

Students and Faculty—The enrollment in the School has fallen off as the veterans have achieved their goals and earned their diplomas. The total enrollment for the academic year 1950-51 was 1,042 and in 1951-52 it was 725. This reduction in enrollment has been accompanied by a reduction in faculty, although not to the same degree, and the result has been a more effective job in teaching.

The past biennium has seen the retirement of another pair of the original faculty who established and built the reputation of the present School. Professors Bruce D. Mudgett and Richard A. Graves, in statistics and insurance, respectively, have passed on their responsibilities to younger replacements. In the past biennium several highly competent and promising younger men have been added to the senior faculty. They are a stimulating addition to the staff and a challenge to its resources for maintaining interest and professional growth through research and a realistic curriculum.

Conferences and Special Training—The major teaching function of the School is for the undergraduate and graduate student. However, the educational service extends beyond the instruction of candidates for degrees. During the past biennium the School has been increasingly busy with special educational efforts for limited groups in the community. In several of these efforts enthusiastic and generous support has been given by businessmen of the state who have expressed their confidence in the programs of the University. One of the most significant conferences held by the School on our campus in a long time was the Conference on Savings, Inflation, and Economic Progress. Speakers of world-wide renown attracted an audience from the entire country and received generous attention from the national press. It was a timely conference which brought urgent appeals for a repetition at an early date.

Another experiment in adult education was the Business Executives' Research Committee. This was a cooperative effort in community research with direct appeal to a selected group of younger business executives who would be the business leaders of the next generation. The emphasis was on active, direct participation through the year, rather than in passive listening to a series of lectures. This one approach to executive development has been a matter of increasing concern to schools of business administration throughout the country. We have been highly pleased with the results of this experiment in the wide demand for the report of the first study and in the expanding circle of contacts with the business community.

The Upper Midwest Workshop on Economic Education was continued in both summers of the biennium, through the generosity of the businessmen of the state. About 125 additional selected secondary school teachers in the social sciences in Minnesota and the surrounding states were given instruction in "the economic facts of life" which they could take back to their classes for a better understanding of our economic system. The plan was made more effective in the past biennium by a follow-up service in which a representative of the University was able to go into the field to help the participants make their learning more effective in the high schools.

The Industrial Management Training Course for Naval Officers at the Duluth Branch has been continued and expanded for the last two summers. The combination of facilities, program, and climate at the Duluth Branch has made this the preferred and exclusive program of the Navy Air Arm and the prospects are excellent for the expansion of this service to other technical branches of the Navy. This has been a joint project of the School of Business Administration and the faculty of the Duluth Branch.

Special educational services have been offered to other adult groups on the campus. The School has joined with other units on the campus in educational hospitality to several foreign teams who have visited here under the auspices of the Economic Cooperation Administration and its successor, the

Mutual Security Agency. There has continued the program of brief, specialized conferences for groups of businessmen such as those interested in market research, insurance, and various labor-management groups which are reported on by the Industrial Relations Center.

Professional Services—Individual members of the faculty have rendered local and national service through their special professional competence. In addition to many speeches before organizations throughout the state the faculty has given service to such agencies as the Office of Price Stabilization, the Office of Naval Research, several state agencies in Minnesota, the U. S. Treasury, the Military Transport service, and the U. S. Government of Occupation in Japan and Germany. The increasing demands for research and service by the faculty have pointed up the needs in these areas primarily for facilities and coordination. The School is operating under handicaps of space which will become more acute with the approach of a cycle of increased enrollment. The increasing responsibilities and complexities of research in business and economics will call for more specialized and careful organization to insure effective research without interference with the School's primary responsibility in teaching.—RICHARD L. KOZELKA, *dean*.

GRADUATE SCHOOL

The Central Emphasis—The activities of the Graduate School, ranging from graduate enrollments and degrees to advanced programs in more than 90 fields of study, from faculty funds and researches to special institutes and publications, from the Minneapolis campus to St. Paul and Rochester and Duluth, and from problems of fellowships to those of foundation and other grants-in-aid of scholarship may at first glance seem diverse and scattered. But all are given consistency of meaning and objective through the underlying central emphasis upon scholarship and education at a high level.

The two years have been packed with activities accentuated by large enrollments and vigorous researches, coupled with intensive continuing study of methods, organization, and traditional practices. If the total picture is one of fair achievement, the credit must go largely to a graduate faculty that, whatever the pressures upon its time and energy, has been unfaltering in its pursuit of major objectives. In the graduate enterprise, however, no faculty could succeed greatly unless it worked with a body of highly selected students on the one hand, and with adequate facilities and resources on the other. The Graduate School has tried to strengthen the hands of its faculty by its standards of student selection, applied in full cooperation with the faculty, and by strengthening the facilities, resources, and procedures with which the teaching and research staffs have functioned. The Graduate School is a vast co-operative and democratic unit, and in surveying its activities one must pay tribute to the faculty itself and its numerous hard-working committees. They have made it possible to cope effectively, and with never-ceasing emphasis upon quality, with the many problems occasioned by more than 5,000 individual graduate students, an increasing group of doctoral candidates, extensive research, and certain changes and new departures that have marked the total graduate scene.

Enrollment—The total number of graduate students in residence in 1950-51, including those registered in the Mayo Foundation and in the summer terms as well as the regular academic year, was 5,850; and in 1951-52 the number decreased to 5,544. Thus the average enrollment was 5,697 as compared with 5,406 during the preceding biennium and 4,677 for 1946-48. Such average figures, however, do not portray with precision a downward trend in enrollment that was clearly marked in the second year of the biennium herewith reported, for during the regular academic years the total of graduate students declined from 3,739 in 1950-51 to 3,199 in 1951-52. This considerable change in the graduate picture was not reflected, on the other hand, in the figures for summer graduate enrollment, since the number of summer students increased beyond the previous biennium to 2,910 in 1950 and 3,011 in 1951. The general situation portended a decline for the summer of 1952, after steady increases throughout the postwar period. (See Table I for further details.)

TABLE I. GRADUATE SCHOOL STUDENTS IN RESIDENCE, INCLUDING MAYO FOUNDATION FELLOWS

Registrants	1950-51			1951-52		
	Men	Women	Total	Men	Women	Total
Fall, winter, and/or spring	1,887	453	2,340	1,541	367	1,908
Summer Session only	1,143	368	1,511	1,333	387	1,720
Both fall, winter, spring, and Summer Session	1,217	182	1,399	1,125	166	1,291
Mayo Foundation Fellows	589	11	600	597	28	625
Totals	4,836	1,014	5,850	4,596	948	5,544
Totals, academic year (exclusive of Mayo Fellows)	3,104	635	3,739	2,666	533	3,199
Total individuals in two summer terms, less duplicates (exclusive of Mayo Fellows)	2,360	550	2,910	2,458	553	3,011

Meanwhile, following great increases during two bienniums, veteran registrations have gone sharply downward. This trend has appeared notably in the regular academic years, for after having constituted more than half the total registration, veteran registrations dropped to 43.1 per cent in 1950-51 and 35.9 per cent in 1951-52. The summer registrations, however, reflecting the purposes of teachers and other regularly employed persons to carry forward their training under the G.I. Bill of Rights, continued to show a strong veteran tinge. In fact, the veterans continued to make up approximately three-fifths of the summer registrations throughout the biennium.

The over-all ratio of men to women in graduate study at Minnesota continued to be approximately 5 to 1. If anything, the figures indicate a small increase during the biennium in the proportion of men to women as compared to the previous two years. Employment opportunities, shifts in the age for marriage, and other factors, seem to be establishing a ratio significantly different from that which prevailed before the war—in 1939-40 the ratio was 2.39 men to 1 woman.

Subsidies—As in previous years, staff appointments of various kinds, but notably as teaching and research assistants and as medical and Mayo fellows, accounted for subsidies to approximately two-fifths of the graduate students enrolled during the regular academic years. Graduate education is expensive both for the institution and for individual students, and as large numbers of fellowships are not available the assistantships take on great importance. This importance centers both in encouragement and financial aid to highly promising students and in the training afforded by such assistantships in teaching and research under competent direction.

Foreign Students—The international distinction of the Graduate School was reflected in increasing numbers of graduate students from other countries of the world. The totals, 467 in 1950-51 and 526 in 1951-52, may be compared with the figures 407 and 439 in the two preceding years. Numbers from China continued to decline, and there were slight decreases in those from India, whereas Canadian enrollments increased significantly, those from the British Isles more than doubled, and there appeared to be a rise of Latin-American interest in graduate study. Government programs accounted for increasing numbers from Germany, Austria, and Japan. Table II gives further detail on foreign students. The majority of foreign students continued to seek out advanced training in the medical, agricultural, and physical sciences, but in the second year of the current biennium approximately one-third of the foreign graduate students specialized in education, social sciences, and literature.

Faculty cooperation in all areas has been cordial and effective in forwarding the foreign student policies of the Graduate School. The Committee on Foreign Students, of which the dean is chairman, continued to deal with questions of policy and, through a subcommittee, to select appointees for Foreign Student Tuition Scholarships, the number of which remains at 40. In dealing with the many problems of foreign graduate students, who comprise approximately four-fifths of the foreign students in the University of Minnesota, the

TABLE II. FOREIGN STUDENTS REGISTERED IN THE GRADUATE SCHOOL.

Country	1950-51	1951-52	Country	1950-51	1951-52
Algeria	1		Korea	3	2
Argentina	2		Latvia	1	3
Australia	3	8	Lebanon	1	3
Austria	6	8	Malaya	1	2
Belgium	6	9	Malta	1	1
Bolivia	1		Mexico	8	11
Brazil		5	Netherlands	3	10
Burma	1	1	Netherlands Guiana	1	
Canada	163	161	New Zealand		2
Chile	1	2	Nicaragua	3	1
China	67	55	Nigeria		3
Colombia	3	6	Norway	18	19
Costa Rica	1	1	Pakistan	3	3
Cuba	1	3	Panama	2	1
Czechoslovakia		1	Peru	5	4
Denmark	3	3	Philippine Islands	2	5
Ecuador	1	2	Poland	3	4
Egypt	13	17	Portugal	1	2
England	15	18	Russia	1	1
Estonia	2		Salvadore	1	1
Finland	3	4	Scotland	4	8
France	6	5	South Africa	1	2
Germany	11	14	Spain	1	1
Gold Coast	2	2	Sweden	5	2
Greece	7	11	Switzerland		2
Guatemala	4	2	Syria	1	1
Hungary	4	3	Thailand	4	6
Iceland	2	1	Turkey	2	3
India	36	33	Uruguay		1
Indonesia	2	4	Yugoslavia		1
Iran	1	4			
Iraq	3	5	Totals	467	526
Ireland	6	8			
Israel	1	4	Total Countries Represented	59	61
Italy	2	6			
Japan	13	15			

Graduate School benefited greatly by the excellent services of the Foreign Student Adviser's Office under Forrest G. Moore. Numerous student organizations have also aided in various ways. An unmet need is that of a certificate of attendance for nondegree foreign students who have completed a year of academic residence and study. Such a certificate would tend to draw foreign students away from the mere pursuit of higher degrees (for which frequently they cannot complete the requirements because of time factors) and would permit them to work out programs centered in their individual purposes unrestricted by degree requirements.

Emphasis upon the international reputation of the Graduate School should not close our eyes to the fact that more than half of all our graduate students come from the state of Minnesota itself and that approximately two-thirds of the graduate students are drawn from Minnesota and the economic area adjacent to it. Thus, the Graduate School is not neglecting its service to the home community while making its resources available to students from more than threescore countries of the world.

Degrees—Though somewhat under the total of 1,963 for the preceding biennium, the number of graduate degrees conferred by the University during the past two years—1,894—still represented a high level. The decrease came in the number of Master's degrees, whereas Doctor's degrees advanced from 302 in the preceding biennium to 378 during the past two years. There were 1,516 Master's degrees. The number of Doctor's degrees granted exceeded that in any previous biennium in the history of the Graduate School. For 1951-52, agriculture contributed the largest number of Ph.D.'s, with physical sciences, education, and social sciences next in order. The order for Master's degrees in the same year was education, medicine, social sciences, physical sciences, and agriculture.

Special Programs—A program to provide basic training in intelligence research was inaugurated in 1951, and toward the close of the biennium plans were developing for a Master's program in regional and urban planning. Programs at the Ph.D. level were authorized in music, comparative literature,

and journalism, and Master's programs were extended to training for art museum work, music education, geophysics, cancer biology, and comparative literature. The program leading to the Ph.D. in social sciences, offered experimentally in individual cases during the past two bienniums, was terminated by faculty judgment in 1952.

Meanwhile the American Studies program, in both the academic years and the summer terms, proceeded with vigor and success, its quality having attracted able students from many parts of the country. The interdepartmental program in biophysics made progress, with modest graduate enrollments. The newly initiated two-year program leading to the degree, master of fine arts, was carried forward conservatively, with careful attention to the selection of students, and two degrees in this field were awarded. The graduate program in statistics, under a special faculty committee of five members, had some 20 students regularly enrolled. Much faculty thought was devoted during the biennium to programs and plans in international relations and area studies, and the Center for International Relations, under the direction of Professor C. H. McLaughlin, made splendid contributions in its reference work, research, and general services. The Graduate School has not embarked upon Ph.D. programs in area studies, but offers courses in various areas at the Master's level, each with a special adviser. Arrangements for the ultimate acquisition of the remarkable Ames Library of South Asia point to that area as one of enlarging interest for the future. The field of cancer biology continued to offer training to the Ph.D. degree, with few, but highly selected, graduate students. A relatively new departure is the Master's program in library science, in which there were some 20 candidates for degrees. Two years ago attention was directed to a new kind of Master's program for engineers engaged in full-time professional work, arranged in cooperation with the Extension Division and the Institute of Technology. No fewer than 64 registrations touching seven fields of engineering indicated a genuine need for this program, though no higher degrees were earned as a result of it.

Fellowships, Scholarships, and Fees—Six Greater University Graduate Fellowships were awarded during the biennium, with a screening of nearly 150 applicants. The splendid support of these fellowships by alumni and friends of the University through the Greater University Fund is deeply appreciated by the Graduate School. The array of top talent in need of encouragement is so great, however, that many more fellowships of this kind are needed. Meanwhile through the National Science Foundation and the system of Fulbright fellowships, many graduate students have been given generous support by means of outside awards to carry forward advanced studies. An initial gift of \$3,000 from the John Cowles Foundation has made possible fellowship and scholarship aid to students from Southeast Asia. During the biennium, beyond these developments, some 41 new fellowships were established and 40 Foreign Student Tuition Scholarships administered. Various other fellowships were terminated because of exhaustion of funds.

In 1951 the tuition structure for graduate students underwent a considerable change, with increases in resident and nonresident tuition and the abolition of tuition exemption for teaching and research assistants and for fellows. A blanket arrangement was made whereby holders of such appointments, whatever their geographic origins, would pay tuition at the resident rate. The change, fortunately, was accompanied by substantial increases in the stipends for assistants, though the fellowships, for the most part, were left at their previous levels, many of them supported by income from fixed endowments. In order to fulfill certain commitments to earlier donors, the Graduate School was granted authority to administer 20 special tuition scholarships.

I cannot emphasize too strongly the need for additional graduate fellowships with stipends of \$1,200 to \$1,500. Mounting living costs plus increases in tuition have made financial aids for graduate students a problem of major proportions. Its gravity is increased by the competition of other universities for the training of highly selected talent.

Social Science Research Center—The contributions of this agency, started in the Graduate School in 1947, were many and significant during the biennium.

The fund-raising function of the Center includes assistance in the preparation of research proposals and the facilitating of contacts with fund-granting agencies. Once secured, however, research grants do not normally come under the administrative control of the Center. During the biennium the Center was instrumental in securing for faculty research more than \$400,000 from sources outside the University.

In the spring of 1952 the Center sponsored a lecture series on "Human Problems of the Garrison State." Through panels and committee conferences, the Center has continued to foster research and teaching interests in the broad range of the social sciences. In the summer of 1952 it arranged and carried out a training program for a group of visiting French social scientists. It is continuing its inventory of University research in the social sciences and is exploring possibilities for strengthening the University in the entire field of social-science teaching and research. The enterprise as a whole must be regarded as a demonstration of the effectiveness of faculty cooperation in coordinating research and advancing fundamental work in a large area of scholarship and education.

Scandinavian Area Program—The five-year grant from the Carnegie Corporation of New York for the development of a Scandinavian Area Program came to an end in 1952. This interesting program has trained young people for positions that call for knowledge of the Scandinavian scene. It has stirred student and public interest in the interrelations of Scandinavia with the world today. It has proved a stimulus to interdepartmental cooperation, through the participation of the faculty in many areas with the department primarily concerned with Scandinavian studies. It has enriched the library collections in the Scandinavian field. A series of well-planned conferences or institutes, with speakers from abroad and from many parts of the United States, has resulted in several published volumes.

Numerous public lectures have enlivened the program, which also has been strengthened by visiting lecturers from the various Scandinavian countries, including for 1951-52 experts from Sweden in art history and urban life. Professor John I. Kolehmainen of Heidelberg College also joined the staff during the second year of the biennium. Fellowships have attracted graduate students of high quality, and in 1951-52 there were 10 candidates for the Master's degree, while other advanced students with regular departmental majors and the Scandinavian Area as a minor prepared for the Ph.D. That the program, viewed as a whole, has made constructive contributions to American understanding of the Scandinavian world and to the training of specialists in this field is certain.

The Preparation of College Teachers—The dean continued his activity on the national level in the movement looking toward improvements in the training of college teachers. Conferences in 1949 and 1950 sponsored by the American Council on Education and the U. S. Office of Education centered in this problem, resulted in two published volumes of proceedings, and led in 1952 to the formation of a national committee on college teaching, with the dean as chairman.

Our own College of Education, it might be pointed out, now offers courses in such subjects as effective college teaching, the improvement of college instruction, curriculum trends in American colleges, and directed experience in college instruction, while in many departments serious attention is being devoted to the strengthening of the system of teaching assistantships as a means of training for the college teacher.

The University Bureau of Institutional Research, under Professor Robert J. Keller, continued its analysis of returns from more than 1,100 alumni who earned the Ph.D. degree at Minnesota in the period 1935-49. The information supplied is developing a directory of University of Minnesota Ph.D.'s; giving detailed statistics on many matters, including distribution of majors, age of students, length of time involved in Ph.D. study, and the like; making possible an evaluation of graduate programs in terms of the contributions, status, and self-appraisal of the degree holders; and throwing light upon the adequacy or inadequacy of the University's Ph.D. training for the profession of college teaching. A preliminary report will appear in a forthcoming volume of *Studies in Higher Education*.

Organization and Procedures—The postwar enrollments at all levels of higher education reached into the Graduate School to produce certain stresses and strains on both organization and procedures. Consequently the Graduate School continued the analysis and study of its own operations and procedures in an effort to improve efficiency and economy without sacrificing standards or personal relations with students. Periodic reappraisal of functions and continuous self-study are essential if graduate education is to remain a vital force in the preparation of specialists and research men and teachers in a society of growing complexity, coupled with an insistence on the extension of educational opportunity.

Language Requirements for the Ph.D.—The last biennial report noted the action of the graduate faculty in modifying the traditional Ph.D. language requirements, to provide greater flexibility not only in the choice of foreign languages but also in the choice of collateral fields or research techniques as a substitute for one foreign language, in cases where such collateral fields or research techniques clearly would strengthen the candidate's preparation. The plan, inaugurated at the start of the academic year 1949-50, has been in successful operation since that time, with the approval of the faculty.

Standards of Scholarship—A new development in the Graduate School is the careful quarterly evaluation of the scholastic achievement of all students. The great majority of students are admitted to graduate study unconditionally, upon faculty recommendations, but not a few admissions are probationary or conditional. Even with the careful scrutiny of records at the time of admission, experience indicates that roughly 10 per cent of the students make questionable records at the graduate level. A system of checks and balances has been evolved to take account of this fact. Evidence indicates that the plan is working satisfactorily.

Summer Research Appointments—This summer plan for the encouragement of faculty research and writing, begun in 1946, was continued successfully during the biennium, with 11 new appointments for each of the two summers, thus bringing the grand total of appointments for the seven-year period to 73. There was, as usual, a wide range both in the fields and subject matter represented by the appointments and in the academic ranks of the appointees.

Regional Writing—During the biennium 5 additional fellowships were awarded in the Graduate School's project for creative work interpreting the life of Minnesota and the Upper Midwest—one having to do with the great music of the world as interpreted in this region; one an artist's impressions of the Midwest at mid-century; a third dealing with the history of the theater and dramatic entertainment in Minnesota; the fourth a regional novel; and the fifth a study of the noted panoramist, Henry Lewis. The project as a whole has added 16 published volumes to the literature of the region, but beyond this visible result, it has undoubtedly given wide impetus to creative work in history, biography, fiction, essays, and other literary forms applied to an important region of the United States.

Research—The research picture changes in its details from biennium to biennium, but certain fundamentals persist. One is the vitality of faculty research interest and drive. Some years ago a distinguished American scholar spoke of the University of Minnesota as an exciting institution because it lived always on the edge of discovery. No general review of the Graduate School over a two-year period can fail to underline the truth of this impression. In every area, faculty scholars with fine disregard of union-approved concepts of working hours are pushing forward researches on the frontiers of knowledge. They are aided by graduate students in training and by all the resources of a great university, but the basic factors are their own will and imagination. The Graduate School has given support through its varied funds, has tried to forward coordination wherever feasible, and has emphasized the intimate connection of the research enterprise with high-level training. It has necessarily taken a special interest in fundamental research—research aimed at the uncovering of new truth, even though its application may be hidden in the mists of the future.

General Research Fund—This fund, providing \$90,000 a year, has supported some 60 projects each year for studies in natural and human resources, with a range extending across areas of diverse research interest. Projects have had to do with income-tax administration, photosynthesis, honeybee diseases, the European corn borer, molecular beams, the ethnic backgrounds of the population, Vitamin C, plant diseases, electron-microscopic investigations, maize, ceramics, iron-bearing rocks, life in a small Minnesota community, the mediation of social conflict, analyses of wood and lignin, theories of crushing and grinding, and nutrient deficiencies of plants. These are only a few, but representative, illustrations of research undertakings, the results of which contribute to the advance of human knowledge and welfare.

Medical and Cancer Research—The legislative grants for Medical and Cancer Research set at \$60,000 a year, have related to physical man, basic problems of physical life, diseases, therapies, and underlying conditions and problems. This fund is of particular importance in giving support at the beginning to researches that could not otherwise find financial subsidies. In a typical year, some 35 to 40 medical scholars are aided through the fund in studies having to do with heart diseases, cancer, lungs, hormones, brain tumors, diabetes, ulcers, the use of radioisotopes in the analysis of tissues and tissue components, wound healing, the aging process in man, convulsive disorders in children, and many other problems. Few funds for research, year in and year out, can show a more positive advancing line of contributions to the welfare of people.

Nonmedical Research Fund—This fund, though modest in amount and normally used for relatively small grants, has proved of high value in aiding researches in the range of social, educational, humane, physical, and biological fields of interest. The numerous projects supported may find representative illustrations in botanical and zoological researches having to do with ecology, pollen, genetics, and protoplasm; in physical-science problems relating to the preparation of compounds, reactions of ammonia, and motions of stars; social-science studies in journalism, economic doctrines, national income, productivity in industry, postwar conditions in Japan, and social legislation; educational researches concerned with methodology, human values, language skills in children, the play of adolescents, and preparation for marriage; and humane studies in the elements of design, the literature of social change, concepts of language, the history of art, and the interpretation of westward expansion. Grants to scholars in a wide variety of fields and departments have been productive of many published articles and books.

Greater University Fund—Substantial assistance has been received from this fund to meet needs for special research equipment and other aids that could not be supplied through regular funds. Thus many serious obstacles in the way of effective research have been removed. During the biennium an opaque projector was secured, for journalism; apparatus for amplifying animal sounds, for veterinary medicine; a laboratory press, for forestry; a recording camera, for physical medicine; a flame photometer, for chemistry; testing equipment, for soils; a thermacouple, for poultry husbandry; a heart stimulator, for surgery; a micromanipulator, for public health; and a Schlieren optical system, for mechanical engineering. To these should be added the provision of children's aid scholarships for the Child Study Center. It would be difficult to exaggerate the constructive value of such additions to our research resources, made possible as they are by the generosity of University alumni and friends, through the Greater University Fund.

Minnesota Institute of Research—This department has continued its vigorous support of the researches in the properties and market qualities of concentrated and dry milk products. Further observations have been made on processing and drying under conditions of low oxygen tension. Work has continued on the effects of various degrees of heat treatment. A national survey of fresh raw milk has been conducted to determine the influence of such factors as season, geographical location, and breed on the properties of milk proteins. Experiments have been conducted on the use of nonfat, dry milk solids in the making of cottage cheese. A Venturi atomizer in spray dry-

ing has been investigated. These and other developments mark the advance of research relating to dry milk products, which now bring a greater return to the Minnesota farmer than any dairy product except butter. These studies point the way to an expanding commercial development of high promise to Minnesota agriculture. Another project of interest centers in the study of biological and management problems relating to our commercial fishery resources.

The major project of the Institute, the production of linen yarn from seed flax straw, has now reached so advanced a stage that its successful commercialization seems probable. Two major lines of investigation concerned with the production of the linen yarn were carried on during the biennium. The first involved the use of the weeding and harvesting machinery to produce a very fine linen yarn. The other major effort developed because of an independent survey made by an outside group on the economics of the process. It was suggested by this group that the usual harvesting machinery be adapted to the recovery of the straw without using the harvesting equipment developed for the fine yarns. A good grade of linen yarn was produced by this method, and it was woven into yardage by commercial weavers who pronounced it a satisfactory product. As a result, it was recommended by a group of textile engineers that a small commercial plant be set up to produce a sufficient quantity of linen yarn to determine accurately and fully the economics of the process. This is now being done. It is hoped that from these beginnings will emerge an industry that will contribute to the economic advance of the state.

Hormel Institute—This agency centers its work in research and education in important areas of the agricultural sciences. Its large and well-equipped laboratory at Austin now has seven sections, with a staff of 39, of whom 8 carry on their researches on the other campuses of the University. A large animal building, completed in 1950, is used for studies of the nutrition and diseases of pigs. Major emphasis in the research enterprises of the Institute is on pure science and creative scholarship, and, notwithstanding physical separation from the Minneapolis and St. Paul campuses, its atmosphere is a university atmosphere. Its staff is in constant cooperation with scholars in Rochester, St. Paul, and Minneapolis; the Institute provides facilities for graduate students; and certain of its staff members engage in teaching activities.

The many improvements in physical facilities of the biennium cannot be detailed here, but it may be noted that the budget of the Institute, set at \$10,000 when work began, now is in excess of \$190,000. Researches on the chemistry and biochemistry of fats and oils have constituted a major area of Institute activity since the beginning, and during the biennium much advance was made in knowledge of the mechanism of the oxidation of fats and the structures of resultant products—advances that may have high value in the prevention of rancidity and the use of protective coats from drying oils.

Other researches of interest were carried forward. In bacteriology, the effects of low temperatures on microorganisms were studied, and the mechanism of enzyme operations that cause food deterioration at low temperatures was discovered and methods for retarding its activity were devised. In swine nutrition, the independent discovery by the Institute that certain antibiotics stimulate the growth of pigs was followed by further studies as to optimum amounts and conditions for the use of such antibiotics under farm conditions. In veterinary medicine, advances were made in the study of hog cholera and transmissible gastroenteritis. In genetics, a separate section was established, and progress was made in the development of a small breed of swine for experimental purposes—something that may prove a genuine boon to medical research. There is evidence that the discoveries made by the Institute have found wide practical application and are leading to improved farm practices.

Dight Institute—The Charles Fremont Dight Institute of Human Genetics, under the leadership of its director, Professor Sheldon C. Reed, extended its program of informal education in human genetics to a much wider audience during the biennium. More detailed instruction to students in pediatrics was provided by its assistant director, Dr. Ray C. Anderson; formal course offer-

ings in genetics continued through the Department of Zoology; and a public lecture by William Vogt was arranged in 1951, in cooperation with the Minnesota Human Genetics League, on the conservation of natural and human resources. Progress was made on the large research project relating to mental deficiency, with financial aid from the League and from the Minnesota Division of Public Institutions, and with the assistance of Dr. J. A. Bök of the State Institute for Human Genetics at Upsala, Sweden, and Dr. John Schut of the Anoka State Hospital. Research in human breast cancer was carried forward with substantial grants from the American Cancer Society and the United States Public Health Service. The Institute also advanced its studies of heredity in fibrosis of the pancreas, Huntington's chorea, a new kind of vision deficiency, diabetes mellitus, and in normal intelligence and differential fertility, with various publications in scientific journals.

The deep interest of Helen Bunn of St. Paul in a positive, long-time, medical approach to the problems of defective heredity and overpopulation led to a bequest by her of \$10,000 to the Dight Institute which came to the Institute upon Miss Bunn's death in 1951. This bequest is at once a memorial to a citizen of high public spirit and an encouragement to the fundamental studies of the Institute.

Meanwhile, the work of the Institute in counseling and public service, of high value to state and local welfare groups and to physicians, has grown steadily. Its practical and scientific utility was given unusual recognition during the biennium by a generous grant from the Rockefeller Foundation, which made available the sum of \$27,300 for the three-year period beginning July 1, 1951.

Dental Research—A small fund for research aid in Dentistry continues to be administered through the Graduate School. This has been used for special studies in amalgam alloys, caries, orthodontic treatment, and basic problems having to do with the elements of teeth and bones. It may be of interest to note, in this connection, that the graduate program in dental education, with a special committee in charge under the leadership of Dean William H. Crawford, is making steady progress and that in 1951-52 there were 16 graduate students in this field.

Mayo Foundation—The Mayo Foundation, a division of the Graduate School, submits a special report for the biennium through its director, Dr. Victor Johnson. It is sufficient to note here that its enrollment has continued at high level, with 600 and 625 medical fellows in the two years of the biennium. The joint committee, representing the graduate medical faculties on the Minneapolis and the Rochester campuses, has held frequent conferences on problems of policy and the coordination of graduate programs in the two units.

The Duluth Branch—The plan for a limited amount of graduate work, primarily in elementary and secondary education, at the Duluth Branch in its summer terms, was continued through the biennium, and a few courses were authorized for the academic year. Courses are validated for credit and staff members approved for the graduate faculty after review by the faculty in related areas on the Minneapolis Campus and by the Graduate School as such. This experiment, designed for teacher training at the graduate level in northeastern Minnesota, has thus far set up a variety of courses in education, with some fifteen staff members duly authorized to teach them. The courses include such important subjects as the psychology of learning, critical issues in contemporary education, rural education and community leadership, remedial reading, and the history of state and region. Candidates for the Master's degree enroll on the Minneapolis Campus for the filling out and completion of their programs.

Administration—As the biennium came to an end, the Executive Committee of the Graduate School consisted of Professors Clarence E. Mickel, Donald B. Lawrence, H. Harvard Arnason, Maurice B. Visscher, Walter W. Cook, Richard C. Jordan, and Elio D. Monachesi, with the dean acting as chairman and the assistant dean and the administrative secretary participating, the latter as secretary. In 1951 the offices of the Graduate School were moved into new quarters in Johnston Hall, with improved facilities for a

staff and functions that had long since outgrown the space provided in the Administration Building. One feature of the new quarters was a Conference Room for committee and staff use. A happy development was the setting aside, on the floor above the Graduate School offices, of a series of rooms for faculty and student use in oral examinations for the Master and Ph.D. degrees.

Noncurricular Aspects of Student Life—This survey cannot be closed without adding a word of praise for the Graduate Student-Faculty Club, which has made many contributions, outside the sphere of formal class and laboratory study, to the pleasure and richness of graduate-student experience. It has arranged tea and coffee hours, mixers, dances, boat trips, and discussions, and established headquarters in rooms assigned to it in the building known as "Temporary South of Folwell." Though its impact at best seems to touch only a minority of the graduate students, it has forwarded a richer social pattern of living for all who have participated in its activities. Its efforts re-enforce the truth that graduate education is self-education on a larger campus than classroom or laboratory.—THEODORE C. BLEGEN, *dean*.

THE MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH

As part of the University, the Mayo Foundation is conscious of the two major functions of any university: education and research. A university may justify its existence only insofar as it educates and trains students whose accomplishments will continue to reflect credit upon the university and as it expands man's knowledge, understanding, and appreciation of himself, of the world and of the many intricate interrelationships of the animate and inanimate inhabitants of the universe.

In medical education and research a third responsibility presents itself: the care of the sick. Fortunately, in fulfilling this responsibility, the University functions of research and teaching can be strengthened. In fact, without an appropriate ingredient of clinical practice, medical education and research may be tremendously handicapped.

It is an aim of the Mayo Foundation to effect a proper balance of education, research, and patient care so that each of the three augments the effectiveness of the others. Fortunately again, in medicine, this is not only possible, but it is the best way of achieving the desired triple goal.

Research—The completion of the expanded Medical Sciences Building in 1952 was an important development in the Foundation's research program for fellows and faculty. Since 1924, laboratory research at the Mayo Foundation was carried on mainly under the able direction of Dr. Frank C. Mann at the Institute for Experimental Medicine located five miles from Rochester.

The construction of the original Medical Sciences Building in 1942 was aimed at a closer correlation of clinical and laboratory investigation. The fruitfulness of this program led to the present expansion of the building and the transfer of virtually all laboratory research facilities into Rochester, where on the one hand they are close to the source of clinical research material, and on the other hand, they are readily available to clinical investigators requiring laboratory facilities.

The principle of propinquity of laboratory and clinical facilities has been adopted as a policy, to facilitate collaborative research by laboratory and clinical investigators. Such research seeks to capitalize maximally upon a major research asset of the institution, the tremendous volume of clinical material available for study. Collaborative investigations have paid gratifying dividends in the past: the biennium has seen the award of a Nobel prize to a chemist and clinician for contributions jointly to our knowledge of the adrenal gland and to an improvement in the therapy of several diseases. Cooperative investigations by physiologists, internists, and surgeons on the circulation in patients with congenital circulatory anomalies have materially augmented our understanding of basic principles in the circulation of the blood in man as well as providing clinically invaluable guides to the thoracic surgeon.

The opening of the Medical Sciences Building in Rochester should materially augment the prosecution of such fruitful collaborative research.

Research by Mayo Foundation fellows in the biennium is reflected in the large number of scientific papers published and also in the awarding by the University of 141 Master's degrees (all but 2 with field named) and 10 doctor of philosophy degrees. This number represents about one-half of the fellows completing their work in the biennium. In the spring quarter, 1952, there were 92 fellows working full time in basic science laboratories and 17 working half time. This was approximately 20 per cent of the total fellowship population for the quarter.

Fellows—In a large measure, the quality of performance by any university department depends upon the quality of the students it attracts and selects. Today, in the country at large, there are four times as many opportunities for residency and fellowship training as there were before the war. There are many more training posts than are required to replace the specialists who die. By comparison with many other institutions, the Mayo Foundation is faring very well, continuing to attract good students. The maintenance and improvement of a graduate educational program of a high order and the fostering of a research climate continue to provide the inducement for physicians to seek appointments in large numbers. At the close of the biennium, spring quarter, 1952, there were 504 fellows at work: 141 in internal medicine, 136 in general surgery, and 227 in other fields. Fifty-six fellows were on military leaves of absence.

Military Service—The needs for medical officers are such that increasing numbers of fellows must interrupt their fellowships to enter the services. Still other appointees are called to active duty before commencing their fellowships. These eventualities necessitate difficult adjustments as regards assignments of fellows and numbers of fellows appointed, if one is to employ maximally all the educational opportunities of the institution at all times. An equilibrium will probably soon be reached, in which the number of fellows returning will approximate those leaving. At that time there will probably be 100 or more fellows on military leave.

Faculty—The responsibilities of the faculty are well balanced in the three areas of activity of the institution: research, education, and patient care. Consistently, in the past years, as increases in the patient load have occurred, and as the clinical staff has been augmented, there have been corresponding increases in laboratory and research staff and facilities. For about 25 years, there have been surprisingly constant ratios between the numbers of patients seen, numbers on the entire faculty of the Foundation, fellows, laboratory faculty, and research faculty. In June, 1952, the faculty of the Foundation numbered 250 with appointments on the staff of the Graduate School of the University.

Collaboration with Other Divisions of the Graduate School—The faculty of the Mayo Foundation, largely through its Medical Graduate Committee which holds weekly meetings, cooperates with the faculty and committees on the Minneapolis Campus in the establishment of policies, the evaluation of theses for the Master's and Doctor's degrees, and the examination of candidates for degrees. There have been several instances of Foundation fellows spending a period of time at the University campus, especially for course work needed by the fellow and not available in Rochester. Such fellows continue on Foundation stipends. Some have served as laboratory teaching assistants in the Minneapolis departments of the Medical School.—VICTOR JOHNSON, *director*, and K. B. CORBIN, *associate director*.

THE GENERAL COLLEGE

The General College Comes of Age—The General College, youngest in the University's family of colleges, completed its second decade at the close of the 1950-1952 biennium. In a great many respects the program embarked upon in 1932 had been revolutionary as well as pioneering and experimental, and for years the College was the cynosure of the interested and critical but

not always admiring eyes of the educational world. A survey of developments of the last two years, however, indicates that the General College no longer stands alone in the field of general education, that its curricular and administrative innovations have lost their revolutionary and pioneering flavor, that on the whole its experiments in general education have been successful and certainly widely copied, and that there might even be reason to believe the College is beginning to lose its role as prophet without honor on its home campus.

When the General College was established in 1932, the University of Minnesota, and indeed most other colleges and universities, were questioning tradition, analyzing anew their functions and responsibilities, searching for new or improved means of equipping college students to function as mature individuals and thinking citizens in a dynamic, democratic society. The aftermath of World War I and the impact of the great depression were echoed on college campuses by a new and sharp realization of the need for collegiate adjustment to changed conditions. The program of the General College, which sets the discerning, critical, rounded individual as its aim and which emphasizes the student-centered rather than the subject-centered curriculum, was an experimental portion of this University's response to the need for change.

The years that followed can be characterized as having been a period of exciting change and stimulating readjustment, of inspired innovation, and, on occasion, of considerable confusion. The concept of education the faculty of the College was beginning then to explore was a new concept; the general education movement was in its infancy. Slowly at first, but with increasing momentum, experiments in general education, such as that of the General College, became more and more common, and general education programs, general education courses, general education premises have aroused discussion and controversy, and have been applied or utilized in an ever increasing number of schools and colleges all over the nation, especially since World War II. In marked contrast to all this activity on other campuses, the last two years have found the General College in a relatively stable position, engaged in the undramatic but necessary and satisfying pursuit of consolidating its gains.

This is not to say that the College has not been a part of the postwar burgeoning of the general education movement. Young as it is, academically speaking, the College has had more experience in general education than most, and its experience has been increasingly called upon by others during the last two years. Inquiries concerning the General College program, for example, have always been numerous and continue to come from all parts of the country and even from abroad. Each month brings its quota of visitors to question and to observe. In this biennium faculty members have been asked to speak to lay and professional groups about General College general education in California, Ohio, Iowa, Florida, Missouri, New Jersey, New York, Michigan, and Massachusetts.

The College was asked to send faculty members to serve as consultants in the study of general education in California junior colleges, financed by the Carnegie Foundation for the Advancement of Teaching, and to the conference on general education in mid-century held at Florida State University in 1950. It has been one of nineteen institutions cooperating in the American Council on Education's three-year study of evaluation in general education, and its dean has served as a member of the United States Commissioner of Education's advisory committee on general education. The report of its 1949 national conference on general education, *General Education in Transition*, edited by Dean H. T. Morse, was published by the University of Minnesota Press in 1951.

While playing this active part in the development of the national general education movement, the college has won increasing acceptance of its program on the home front. It is specially gratifying to be able to report that when the College moved from its native Westbrook Hall to Nicholson Hall at the beginning of this biennium it seems to have left its ancient quarantine sign behind. Two trends noted in the 1948-50 biennial report are still apparent: the increasing number of students who enroll in the General College even though they may be eligible for admission to other colleges of the University, and the increase in favorable recognition of the two-year degree in the non-

academic world. Moreover, precisely defined and mutually agreeable transfer and accreditation policies have now been worked out between the General College and all other colleges of the University admitting freshmen. General College courses tend to be more and more in demand as specific requirements or recommended electives in such professional curricula as those in home economics, education, and nursing. General College courses can be used to fulfill group requirements of the Junior College of Science, Literature, and the Arts, and one of its courses has been utilized as a means of training prospective teachers from the College of Education.

That this should be true is due to the growing recognition here of the value of General College general education offerings and to the professional competence and ability of the General College staff. During the past two years, members of the faculty have been asked to teach courses in other departments and colleges of the University, as well as outside the University in such institutions as Hamline University, Michigan State College, and New York University. They have taken a more active part in all-University committee assignments, and as members and office holders in national professional organizations. They have been named in greater number to the faculty of the University's Graduate School where they have participated in teaching courses, examining candidates for advanced degrees, and serving as major advisers in specialized fields for the M.A. and Ph.D.

The College was honored through two members of its faculty who spent the 1951-52 academic year on leave, one studying physical science and mathematics courses in general education in other institutions, on a fellowship from the Fund for the Advancement of Education of the Ford Foundation; the other serving as a member of a team of guidance specialists helping to set up personnel services in Japanese universities, and sponsored by the Supreme Commander of the Allies in the Pacific.

In spite of the necessity for severe retrenchment in each of the annual budgets, the General College has been able to retain key members of its faculty. They have been able, therefore, to continue many of the joint activities described in the 1948-50 report. Seminars for new faculty continue to be held at the beginning of every academic year. Colloquia and general faculty meetings occur regularly. During the 1951-52 term, the faculty, working as a committee of the whole, produced the fifth form of the College's distinctive comprehensive examination. In 1951, and again in 1952, the faculty voted to submit its instruction to evaluation by students through use of Form B of the University of Minnesota Student Report on Classroom Teaching.

During this period the Advisory Committee of the College, which had originally served in a semi-administrative capacity, was discontinued. In a letter dated March 26, 1952, President Morrill wrote to members of this committee:

Originally appointed in 1940, with a revision of personnel and function in 1945, the General College Advisory Committee, which was a presidentially commissioned group, rendered important service to the College and to the University as a whole, notably in the realm of policy-making. The General College now enjoys full status as an administrative and instructional unit, comparable with the other colleges of the University, with a faculty to whom it is important to assign full responsibility for policy-making, curriculum, etc. I have reviewed with Dean Morse the history and present operations of the Advisory Committee and it no longer seems to both of us necessary to call upon this Committee for continuing service. Accordingly, the General College Advisory Committee is now discharged. . .

With these words, the College again became a completely independent unit, as in 1952 it enters upon its twenty-first year. Although recognizing that the stimulating period of its revolutionary and pioneering beginnings and early evolution are a thing of the past, the faculty is determined to preserve the experimental nature of the College, its program, and its policies. It firmly intends to prevent stability and recognition from developing into complacent ossification. During the coming biennium, for example, the faculty hopes to be able to continue the work of revamping the literature, writing, and social studies courses begun during the 1951-52 academic year. The counseling division has plans for conducting a long-range evaluation program. Results of the American Council on Education evaluation studies need to be examined and

assimilated. More work must be done towards reaching the set goal of three equivalent forms of the comprehensive examination.

Certain difficulties will stand in the way of this accomplishment. The necessity for financial retrenchment has not yet seriously impaired the quality of the College's curricular offering. It has of necessity, however, thrown heavy additional burdens upon the remaining staff members. It may, therefore, have the effect of slowing, or halting temporarily, the evolution of the program or of suspending long-range experiments. During the past two years it has not been possible to inaugurate new experimental courses, with the exception of a very successful and timely social studies course which makes instruction on the Far East at last available to undergraduates. For the most part, the reduced faculty has been faced with the necessity of maintaining almost the full curricular offering of the College. Some of the remaining staff have accordingly found that the time which might have been spent in research and experimentation has been consumed by preparing to teach in fields somewhat outside those of their major preparation.

Although student enrollment in the College has dropped off from that of the years immediately following World War II, yet that of the General College has not fallen in proportion to the drop experienced in colleges and universities generally. Classes, therefore, continue to be larger than desirable, and advisee loads are heavy. In some respects, the predicted period of small enrollments which should have meant a period of study, planning, and revision, would have been a fruitful respite for the faculty. On the other hand, thanks to the encouragement and support of President Morrill, the College has been able to maintain the integrity of its program and now enjoys building accommodations and equipment such as it has never had before. With this support, and with these facilities, it is hoped and expected that much can and will be accomplished during the 1952-54 biennium.—HORACE T. MORSE, dean.

UNIVERSITY COLLEGE

During the biennium, 69 students received degrees through University College. The number of students registered at any time in the College was below 100. This registration is smaller than that of the previous biennium. The decrease arises from the over-all decline in enrollment in the entire University and from policies followed in this College.

Whenever a number of students requests admission to the College on the basis of programs that have a common core of courses, the orthodox colleges are encouraged to consider modifications in their curricula and to accept candidates for degrees who would follow the new program. Modifications in required courses have occurred in a number of instances, especially in the College of Science, Literature, and the Arts. The acceptance of interdepartmental majors in that college, with a variety of programs not restricted to the conventional major and minor, has reduced the demand for admission to University College. Other colleges are encouraged to relax their requirements for a degree—not in the quality or quantity of work and courses, but in demanding a strict conformity to a stated program.

The members of the faculties of other colleges continue to give time in advising individual students who apply for admission to this College. It is through their aid that we can give the counseling required in an arrangement such as is followed in University College.—J. WILLIAM BUCHTA, chairman, University College Committee.

DULUTH BRANCH

In meeting the higher education needs of its natural area and in its contribution to total University development, the Duluth Branch, in the fifth and sixth years of its existence, has continued to meet a broadening challenge.

Sharing in the academic retrenchment resulting from a legislative appropriation considerably less than estimated needs, the Duluth Branch pursued a vigorous academic course despite a continuing severe handicap in physical facilities that fall far below the recommended minimum.

Academic Structure—The Duluth Branch continued to serve three primary functions:

1. To offer preprofessional courses of two or four years' duration, designed to equip students either for continuing with advanced, technical professional training, or to take positions at preprofessional levels in business and industry.
2. To provide a four-year undergraduate, liberal arts education.
3. To provide pre-service and in-service training programs for elementary and secondary school teachers.

To fulfill these functions, the Duluth Branch is permitted by the Regents to offer curricula leading to the degrees: associate in arts, bachelor of arts, and bachelor of science. The University of Minnesota is a single educational unit. The Duluth Branch is an integral part of the University. Diplomas awarded at Duluth are identical with those given to students who participate in exercises on the Minneapolis Campus.

As an integral unit of the University, the Duluth Branch adheres to standards of staffing and instruction comparable to those prevailing in other University departments where related—though not necessarily identical—courses are offered.

The program of studies at the Duluth Branch is contained within the Division of Education and Psychology, the Division of Humanities, the Division of Science and Mathematics, the Division of Social Studies, and the Department of Air Science and Tactics. Majors are offered for the Bachelors' degrees in the following fields: art, biology, botany, business and economics, chemistry, elementary education, English, French, geography, German, history, home economics, industrial education, mathematics, music, nursery-kindergarten-primary education, physical education for men, physical education for women, physics, political science, psychology, sociology, social studies, speech and dramatics, and zoology. In addition to these curricula, the institution offers preprofessional work in agriculture, dentistry, forestry, journalism, law, medicine, pharmacy, social work, theology, and veterinary medicine.

Every student who completes a Bachelor's degree is required to complete one major, one minor, and 60 general education credits, distributed through the four divisions. A total of 180 credits is required for a bachelor of arts degree. The total required for the bachelor of science degree is 192. Students may receive the associate in arts degree at the end of two years upon the completion of 60 credits in general education, plus electives for a total of 90 or more credits. Including the June, 1952, commencement, 778 bachelor of arts, 644 bachelor of science, and 38 associate in arts degrees have been awarded at the Duluth Branch.

The Duluth Branch faculty has control over and is responsible for entrance requirements, curricula, instruction, examination, grading, degrees, discipline, student activities, athletics, and the library. These powers are exercised within the framework of general policies established by the Board of Regents as a whole and are subject to the limitations imposed by the Senate on a college or a faculty of a college of a university.

Graduate Program—For the large number of in-service elementary and secondary teachers seeking advanced study, the Duluth Branch graduate program in conjunction with the Graduate School continued to meet a long-standing need.

Air Force ROTC—Established in 1948 as a satellite of the Minneapolis Campus unit, the Duluth Branch Air Force ROTC unit in January, 1951, was given permanent status by the Air Force, responsible directly to the Tenth Air Force. In 1952, along with other ROTC units throughout the country, the Duluth Branch unit became a part of the Air University. In the four years of its existence, approximately 875 cadets have been enrolled.

Buildings and Grounds—Despite a ninety-day summer work stoppage caused by a local labor dispute, the \$1,600,000 Health and Physical Education Building on the new campus was nearly completed during the biennium.

The first phases of a four-stage development of a football field adjoining the Health and Physical Education Building were completed.

The Alworth Estate greenhouse was moved to the Science Building, and completed with a connecting addition to the building. The greenhouse is now

a valuable study and research adjunct of the Duluth Branch Science and Mathematics Division.

New Campus Plan—On October 13, 1951, the Board of Regents made an important decision regarding the Duluth Campus. This was based upon a careful and exhaustive research of the future need and scope of the Duluth facilities.

Population figures, birth rates, school enrollments in the area, curriculum preferences among high school students in the area, UMD's own curriculum experience, climate, topography, area, view, sunlight, traffic, and many other factors entered into the study. This research indicates that by 1970, the Duluth Branch may expect to serve a student body of between 3,000 and 3,500 students.

To accommodate such a student body, an "all-weather" campus with a number of innovations in college architecture and topographical utilization has been designed under the general direction of the University advisory architect.

Covered corridors built against the slope will permit the student of 1970 to walk in shirt-sleeve comfort to any major building. Eight-bed cottage-like dormitory units, their backs against the prevailing northerly winds and their windowed fronts to the sun, will provide economic housing both in original cost and in maintenance.

The campus plan enjoyed the full participation of Duluth Branch faculty and Minneapolis Campus administrative, faculty, and technical representatives.—JOHN E. KING, *provost*.

GENERAL EXTENSION DIVISION

Extension Classes—Enrollments in evening extension classes dropped somewhat during the biennium. The total for 1951 was 19,064, as compared to 20,747 in 1950; the 1952 figure of 18,810 may indicate a leveling off, as it compares favorably with the 1948 total. Statistics for extension classes and for short courses appear in Table I. Courses are grouped under collegiate (pre-

TABLE I. EXTENSION CLASSES AND SHORT COURSES

	1950-51	1951-52
Summary of extension classes:		
Number of student registrations		
Collegiate	10,781	10,811
Business	5,854	5,485
Engineering	2,429	2,514
Total	19,064	18,810
Net loss over previous year	1,683	254
Number of classes given	839	863
Number of individuals in classes	11,220	11,202
Net loss over previous year	1,070	18
Summary of short courses:		
Number of short courses	11	17
Number of registrations in short courses	2,477	2,083

dominately liberal arts), business, and engineering. The trend during the biennium is still in the direction of growth in business and engineering subjects. Service to the metropolitan areas of the Twin Cities and Duluth continues to improve, but the steady demand for out-state extension class service has not yet been satisfactorily met.—HUNTINGTON MILLER, *assistant dean*.

Correspondence Study—The statistical analysis indicates that the Correspondence Study Department had an effective biennium. New enrollments accepted during 1950-52 reflect a 10 per cent increase over the 1948-50 period. The fiscal year, 1950-51, shows a decrease of 6 per cent, but for 1951-52 the increase in new registrations is 22.5 per cent. This over-all improvement is due to contractual enrollments made by veterans under Public Laws 346 and 16 and military personnel under special agreements with the United States Armed Forces Institute.

A more careful examination of the statistics clearly points out the significant expansion of military registrations. In the first half of the biennium

3,212 new registrations were processed. Of this number 72 per cent were "civilians," 15 per cent veterans, and 13 per cent military personnel. For the second half of the biennium the figures are: "civilians," 2,310 registrations or 68.6 per cent; veterans, 628 registrations or 16 per cent; and military, 999 registrations or 25.4 per cent.

The military enrollment exceeded a 100 per cent increase—417 in 1950-51 to 999 in 1951-52. Veteran registration remained relatively constant—587 to 628. An expected decrease in veteran enrollment did not appear as veterans entered correspondence study to preserve entitlement after July 25, 1951. The relatively slight drop in "civilian" registration may or may not be significant. In all probability many of the noncivilians would enroll as civilians if no contractual agreement were in force. On the other hand, some are attracted to correspondence study by the reduced rates offered under the special contracts. Operations of the Correspondence Study Department are summarized in Table II.

TABLE II. CORRESPONDENCE STUDY ENROLLMENTS

	1950-51	1951-52
Regular Courses		
Registrations in force, beginning of year	2,999	3,062
New registrations during the year	3,212	3,937
New registrations made through the USAFI	417	999
New registrations made under the G.I. Bill of Rights	586	628
Reinstatements from previous years	108	119
Reinstatements (registrations expiring within the year)	773	704
Total registrations in force during the year	6,319	7,118
Registrations terminating during year	4,030	4,083
Registrations in force at close of year	3,062	3,739
Special Courses		
Citizenship		
New registrations during year	112	79
Individuals enrolled (regular courses)		
New registrations	2,664	3,314
Total active registrations during year	5,287	5,896
Lesson Reports Received		
Regular courses and citizenship	33,747	35,705
Geographical Distribution of New Students		
Minnesota	1,511	1,583
Other states	967	1,244
Out of the United States	42	40
Army Post Office	66	249
Fleet Post Office	78	198
Number of states represented	47	48
Number of foreign countries represented	16	13
Courses Offered	275	276
Instructors	122	122

It is encouraging to note that correspondence students have a significant completion rate. About 40 per cent complete all assignments and examinations. The department processed more than 70,000 lessons during the biennium.

During 1950-52 administrative attention has been focused on revising courses rather than adapting additional subjects to the home-study method. The new courses added in the biennium include: Production Management; Russian History 1-2-3; Comparative European Governments; Techniques of Inter-Group Education; Geography of Commercial Production; and the Physical Education Program in the Elementary and Secondary School. Considerable improvement has been made in the appearance of course study guides by using the multilithing process. The student receives more readable copy and a more attractive outline of the course.

The department seems to be financially sound in spite of recent increases granted to the instructional staff without a compensating increase in enrollment fees. The income for the biennium compares favorably with the peak period of 1948-50. There is one general caution that must temper all financial aspects of correspondence study, namely, the fact that an increased completion rate means additional expenses without increased income. Thus it is always possible to have a marked increase in instructional costs with precisely the same income, as students pay all fees at time of registration.

Geographically it is apparent that correspondence study serves the adults of this state who are unable to enroll in resident classes. About 50 per cent of the individuals enrolled in the biennium reside in Minnesota. Additional state residents would be included in the military addresses all over the world.—F. LLOYD HANSEN, *director*.

Community Program Service—This department consists of three subdivisions: the Lecture and Lyceum Bureau provides school assembly programs for the area; the Off-Campus Concert and Lecture Bureau provides college and community entertainment of an educational, dramatic, or artistic nature; the Loan Play Library helps schools and communities select plays by providing a library for study and examination. Statistics are found in Table III. For the

TABLE III. COMMUNITY PROGRAM SERVICE

	1950-51	1951-52
Lecture and Lyceum		
Number of programs used	29	22
Number of schools and organizations served	882	767
Number of engagements filled	4,190	3,297
Off-Campus Concerts and Lectures		
Number of programs used	49	36
Number of colleges and organizations served	179	103
Number of engagements filled	542	442
Loan Play Library		
Total number of plays in library	5,074	5,449
Number of requests filled	807	1,109
Number of copies sent out	3,719	4,172

biennium, the Lecture and Lyceum Bureau reduced the number of programs used and at the same time made substantial gains over the last biennium both in number of organizations served and the number of engagements filled. The biennial total for the Off-Campus Concert and Lecture Bureau shows an increase over 1948-50. The number of requests filled by the Loan Play Library in 1951-52 is an all-time high; the size of the library is steadily increasing.—JAMES S. LOMBARD, *director*.

Radio Station KUOM—The primary purpose of KUOM is to disseminate, through radio and television, the educational resources of the state of Minnesota to a state-wide audience, to contribute to, and advance, the University's instructional objectives by broadcasting educational programs based on both University and non-University resources. Coverage of the state is widespread—directly to those who live within range of the transmitter, indirectly through the tape-recorded programs supplied to many radio stations throughout the state. KUOM is on the air 2,368 hours each year, broadcasting approximately 6,760 programs annually on a wave length of 770 kilocycles. Broadcast hours are 10:30 a.m. to sunset, Monday through Friday, and 10:30 a.m. to 12:30 p.m. and 2:00 p.m. to sunset on Saturday; WCAL of St. Olaf College, Northfield, takes the remaining time. Broadcast time is divided approximately as follows: serious and semiclassical music, 41.3 per cent; University of the Air and Minnesota School of the Air, 41 per cent; news broadcasts, 9.5 per cent; agricultural programs, 5.6 per cent; miscellaneous features, 2.6 per cent.

The major project of 1950-51 was the writing and production of *Minnesota Mid-Century*, a series of 13 one-half hour programs carried by 39 of the state's 44 radio stations. Of documentary type, emphasis was on agriculture and also included wildlife, conservation, lumbering, milling, iron mining, and mental health. It received the 1951 *Variety* magazine Survey Award and one program of the series received the First Award, 1952, of the Institute for Education by Radio-Television. Other special programming during the biennium included a television documentary from the Mines Experiment Station in cooperation with WTCN-TV and a series on *The Minnesota Family*, done with other departments of the University. The Minnesota State Department of Education's Tape Transcription Exchange continued to be instrumental in broadening KUOM's extension function. Hundreds of schools and organized listening groups throughout Minnesota and the Upper Midwest region obtained KUOM-taped programs through this outlet, whose Tapes for Teaching Project is 60 per cent comprised of Minnesota School of the Air programs.

University football games were fed to 20 area stations by KUOM. In 1952, the University purchased closed circuit television equipment which has been developed jointly by KUOM and other University departments. During the 1950-52 biennium, 11 national awards were granted KUOM in recognition of widely diverse services. In addition to those already mentioned, awards were made by the National Safety Council, the National Association of Conservation Education, and the Alfred I. duPont Awards Foundation.

The problem still remains of increasing geographical coverage of the state and of securing evening broadcast hours. Consideration should be given to some arrangement for remunerating University staff members who contribute their time and effort to reaching an audience which may be as important as the audience reached through other of the University's educational media.—BURTON PAULU, *director*.

Municipal Reference Bureau—The Municipal Reference Bureau continued, as part of the University, to serve students and faculty as a reference source and, as headquarters of the League of Minnesota Municipalities, the extension of its facilities to government officials throughout the state. The Bureau's statistical record is found in Table IV. Publications handled by the Bureau included the League magazine, *Minnesota Municipalities*, and 15 reprints of value to local government officialdom in several areas. Frequent, close contact with municipalities and their officials was brought about through a field representative, who traveled 4,000 miles from September, 1950 through May,

TABLE IV. MUNICIPAL REFERENCE BUREAU ACTIVITIES

	1950-51	1951-52
Number of inquiries	2,174	3,010
Monthly magazine		
Total number of copies published	86,933	91,776
Average monthly number published	7,240	7,648
Annual convention attendance	642	595
Attendance at regional meetings	1,194	1,463
Number of regional meetings held	17	17
Number of cities receiving charter consultation service	17	9
Attendance at short courses	481	604
Number of short courses held	6	6

1951, visiting 74 municipalities and 118 officials. The director of the bureau maintained continuing contact with the League of Minnesota Municipalities as its executive secretary. He also served as a member of the National Committee on Government Accounting, the American Municipal Association Home Rule Committee, the Governor's Advisory Committee on Waters, the Governor's Advisory Committee on Youth, the State Advisory Committee on Unemployment, the State Civil Defense Advisory Council, and on both the executive and legislative committees of the Minnesota Safety Council.—CLARENCE C. LUDWIG, *director*.

Center for Continuation Study—The number of courses offered by the Center for Continuation Study and the number of course registrants dropped slightly during 1950-52 from the record set in the preceding biennium. During the biennium 1950-52 the Center offered 223 courses with a total registration of 13,422 as compared with 241 courses registering 13,683 in 1948-50. The total of 1,178½ course days over the two-year period indicates that the Center housed an average of nearly two and one-half courses on each working day

TABLE V. CONTINUATION COURSES AND INSTITUTES

	1942-44	1944-46	1946-48	1948-50	1950-52	Totals 1936-52	Per Cent or Average
Number of courses	139	119	174	241	223	1,160	
Number of registrations	6,071	6,756	8,992	13,683	13,422	61,328	100
Minnesota	4,438	5,433	7,134	10,914	10,476	47,695	78
Other U. S. states	1,543	1,266	1,791	2,633	2,814	13,026	21
Foreign countries	90	56	67	136	132	607	1
Male	3,115	3,667	6,114	9,030	9,263	38,940	63
Female	2,956	3,089	2,878	4,653	4,159	22,388	37
Number on faculty	1,850	2,024	2,676	3,515	3,195	18,242	16
Course-days	1,470	841½	1,678½	1,362½	1,178½	7,935	7
Course-hours	9,074	4,793½	6,648½	5,800	7,353¾	41,911¼	36

TABLE VI. CONTINUATION COURSES AND INSTITUTES BY TYPES, 1936-52

Courses	Number of Courses	Registration	Minnesota	Other States	Foreign Countries	Men	Women	Number on Faculty	Course-Hours	Course-Days
Medical	236	10,478	5,152	5,036	290	9,549	929	4,964	11,611½	2,185½
Educational	143	8,128	6,793	1,312	23	3,293	4,835	2,467	3,705¼	617½
Hospital service and public health	137	7,980	6,164	1,767	49	853	7,127	2,378	6,148¼	1,694¼
Commercial	81	6,390	5,764	601	25	5,937	453	1,321	1,860¼	268½
State-municipal functions	101	5,790	5,528	231	31	5,422	368	1,643	1,841¼	291½
Technological	40	5,169	3,973	1,138	58	5,153	16	669	650¼	99½
Social welfare	76	4,388	3,803	567	18	1,657	2,731	1,173	1,626¾	274
Civic and cultural	55	3,145	2,944	195	6	686	2,459	798	1,192	199¼
Dental	138	2,970	2,159	781	30	2,824	146	986	3,670½	650½
Nursing	39	2,438	2,030	393	15	17	2,421	643	847¾	224½
Labor	15	1,147	1,074	64	9	1,066	81	203	162	27½
Legal	15	1,053	1,023	30	0	1,011	42	109	336¼	57½
Pharmaceutical	16	768	708	58	2	598	170	292	343½	46
Kenny technique (technicians, nurses)	38	537	29	476	32	10	527	261	7,062	1,140
National defense	6	506	505	1	0	450	56	147	155	22
Kenny technique (physicians)	24	441	46	376	19	414	27	188	699	136½
Totals	1,160	61,328	47,695	13,026	607	38,940	22,388	18,242	41,911¼	7,935

TABLE VII. BIENNIAL ATTENDANCE BY TYPES OF COURSES, 1936-52

Courses	1936-44		1944-46		1946-48		1948-50		1950-52		Totals		Average Attendance per Course
	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	
Medical	93	3,025	14	762	37	1,929	47	2,303	45	2,459	236	10,478	44
Educational	57	3,107	17	879	17	1,085	25	1,430	27	1,627	143	8,128	57
Hospital service and public health	57	3,620	27	1,565	22	1,232	16	727	15	836	137	7,980	58
Commercial	21	2,051	10	926	13	808	18	1,222	19	1,383	81	6,390	79
State-municipal functions	40	1,923	14	691	15	867	15	1,045	17	1,264	101	5,790	57
Technological	16	872	4	394	6	992	9	1,584	5	1,327	40	5,169	129
Social welfare	9	418	15	696	9	449	19	1,345	24	1,480	76	4,388	58
Civic and cultural	21	966	8	503	3	167	10	782	13	727	55	3,145	57
Dental	9	297	3	49	43	749	46	1,328	37	547	138	2,970	21
Nursing							27	1,510	12	928	39	2,438	62
Labor					5	472	5	239	5	436	15	1,147	76
Legal	7	372	2	164	3	164	1	48	2	305	15	1,053	70
Pharmaceutical	7	364	2	92	2	89	3	120	2	103	16	768	48
Kenny technique (technicians, nurses)	38	537									38	537	14
National defense	6	506									6	506	84
Kenny technique (physicians)	21	406	3	35							24	441	18
Totals	402	18,464	119	6,756	175	9,003	241	13,683	223	13,422	1,160	61,328	53

during the biennium. In addition to this schedule, many other cultural and educational groups used the Center for a meeting place. The course average of 53 persons in attendance would suggest that the dormitory capacity of 75 persons has been fully utilized. Statistical data for the Center are found in Tables V, VI, and VII.—NORMAN JOHNSON, *director*.

Audio-Visual Extension Service—This department furnishes schools and communities of the area with audio-visual materials for use in connection with educational curricula and entertainments of many kinds. This involves making provision for the effective use of these materials. During the 1950-52 biennium, 280 schools, libraries, industries, or other groups were visited and 33 workshops were held at which instruction in the use of audio-visual materials was given. Instruction included effective methods of using audio-visual aids in teaching and such skills as the mechanical operation of audio-visual projectors. Although the film library is growing, it cannot begin to keep pace

TABLE VIII. AUDIO-VISUAL EXTENSION SERVICE

	1950-51	1951-52
Number of communities served	2,053	2,195
Number of visual programs furnished	26,876	28,769
Number of shipments	16,208	16,766
Number of prints in the library	2,647	3,064
Number of titles in the library	1,676	1,833

with the increasing interest in the use of its services. However, at this time substantial additions to the library, and the consequent services this would entail, must await additional space. The number of communities served by film bookings during the biennium remained fairly static over the preceding biennium; however, the number of programs furnished and the number of shipments both showed steady increases over 1948-50. The number of prints in the library was increased by more than 50 per cent in the two-year period and the titles by nearly 40 per cent. Statistics for this department are found in Table VIII.—ERWIN C. WELKE, *director*.

State Organization Service—This Department was organized in 1948 and exists to provide ordinary clerical and office services to various state-wide organizations and associations whose purposes are to promote the health, safety, education, civic information, and welfare of the people. The Department was organized in response to the increasingly heavy demand on the University for services of this kind and as a result of increasing evidence that little is known about the effectiveness of associations thus working for the public good. In brief, the function of the Department is to act as a cooperative office and to allocate ratably the expense of the establishment among those who take advantage of its services. The University does not seek in any manner to influence the character of the programs offered by its constituent members or clients but merely to try to increase the effectiveness of the associations in their several fields and to do so economically and efficiently.

TABLE IX. STATE ORGANIZATION SERVICE

	1950-52
Requests for program planning assistance (world affairs)	421
Special events (world affairs)	77
SOS member organizations	28
Individual members of SOS organizations	9,448
Clerical and administrative job orders from member organizations	1,294

The State Organization Service administers the Minnesota World Affairs Center which is a regional center for education in world affairs, made up of and directed by eleven SOS members in the field of world affairs.

The State Organization Service has grown rapidly in the last two years. Beginning as an idea in the previous biennium, the Department has become nationally and internationally known as a unique experiment in the field of adult education. Statistics will be found in Table IX.—WILLIAM C. ROGERS, *director*.

—JULIUS M. NOLTE, *dean*.

SUMMER SESSION

The continued graduation of veterans which began in the previous biennium has caused the enrollment of the Summer Sessions of 1951 and 1952 to continue to decline. In the first term of 1951 there were 9,202 students enrolled as compared with 7,424 students in the first term of 1952. In the second term of 1951 there were 6,144 students as compared with 4,822 students in the second term of 1952. This is a decrease of 19.3 per cent in the first term and 21.5 per cent in the second term or 20.2 per cent for the Summer Session of 1952 below 1951.

The principal decreases in all colleges occurred in the veteran group. However, there was a major decrease in the College of Education in the second term and major decreases in both terms in the College of Science, Literature, and the Arts in the nonveteran group. It is significant that the nonveteran group in the first term showed no decrease when all colleges were grouped together and further that the nonveteran group showed an increase in the Graduate School and a slight increase in the grouping of all colleges except the College of Education. In the second term, the Graduate School showed a slight increase in the nonveteran group. It is probable that a part of the decrease of enrollment in the second term was due to the fact that increasingly teachers are required to report back to their schools during the last week in August for workshops and orientation.

Under present circumstances, the increment that may come from the return of Korean veterans cannot be estimated with certainty.

Curriculum—In spite of a decrease in enrollment and a declining income, together with increased costs of operation, through the loyal cooperation of the various colleges and departments, the Summer Session has been able to supplement the curriculum with special features. In 1951 a successful Symposium in Contemporary American Art, Music, and Literature was the result of the combined efforts of the departments of art, music, and English. In 1952, the departments of art, English, geography, history, history of education, music, philosophy, political science, Romance languages, and sociology cooperated in a Renaissance Seminar. Intensive advanced Russian was started in 1951 and expanded in 1952 with a beginning course first term and the advanced work given second term. In 1951 the University Theatre and the University High School conducted a Workshop in High School Dramatics. In 1952 the Department of Classics inaugurated a course in New Testament Greek with an encouraging enrollment; the College of Education conducted a Language Arts Program; the History Department offered a course in Business History; the Department of Rhetoric on the St. Paul Campus presented a course in Efficient Reading which filled a great demand; and the School of Journalism conducted two special courses—Education and the Mass Media, and Advanced Research in Printed Media.

In addition to these special features, it was possible to continue the regular curriculum including the Modern Language Institute, the American Studies Program, the Scandinavian Area Studies Program, and the SPAN travel courses. The curriculum at the Itasca Park Forestry and Biological Station has been continued through the biennium.

Most of the workshops in the College of Education have been continued through the biennium with two workshops each year in Higher Education—one for the study of liberal arts related to teacher education and the other for teachers colleges' staff members studying the problems of teacher education; two workshops in Home Economics Education in 1951—one for experienced teachers who wanted help in teaching home planning and furnishing and the other for teachers who wanted help in teaching child development and human relations, and in 1952, one for experienced teachers who wanted help in newer materials for instruction and another for teachers who wanted help in teaching foods and nutrition. The Economic Education Workshop was continued through the biennium but may not be continued beyond 1952. A Workshop in Rural and Village School Problems was conducted in 1952. Although the Curriculum Workshop was dropped, course work has been substituted.

In response to the many requests of superintendents in the state, the College of Education initiated a workshop on instructional and administra-

tive problems for school superintendents already holding Master's degrees. The response to this program offered for the first time in 1952, and especially the individual expressions of appreciation from those registered, indicates an urgency to assess very carefully the need to continue this program.

Tuttle Elementary Demonstration School and the University Demonstration High School were continued through the biennium, as were the Nursery School and Kindergarten, for use as teacher demonstration schools.

The School of Public Health conducted a Workshop for Field Teachers the first year of the biennium and a Workshop in Nursing in Health Programs for School Age Children in the second year.

The School of Nursing conducted a Workshop in Evaluation Techniques in Nursing and a course in Nursing in Atomic Warfare in 1951.

Beginning with the 1952 session the Summer Session at the Duluth Branch was incorporated as an integral unit of the University of Minnesota Summer Session, functioning as any other college of the University. The special course in Business Administration for Naval Officers has been maintained at Duluth through both summers of the biennium.

The Graduate School—Graduate study is one of the major features of the Summer Session. The enrollment (including graduate students at the Mayo Foundation) in 1951 of 2,927 first term and 2,237 second term and in 1952 of 2,367 first term and 1,767 second term, shows a decline in proportion to the decline in enrollment in other units of the University. This decline is in the veteran enrollment, with the nonveteran enrollment showing an increase. The Summer Session still maintains a graduate enrollment of over 4,000 students, which exceeds the enrollment in the College of Education or the College of Science, Literature, and the Arts which are also major units of the Summer Session. Because of its reputation many foreign visitors are attracted to the University of Minnesota Graduate School.

Recreation—The University Theatre remains a popular feature in the recreation program. The plays presented in 1951 were *Papa Is All*, *Twelfth Night*, *The Medium*, *The Telephone*, and *A Midsummer Night's Dream*. For the summer of 1952 the plays offered were *Hamlet*, *Ah, Wilderness*, *A Modern Dance Concert*, and *Harvey*.

The Summer Session, with the assistance of the Department of Concerts and Lectures, has presented convocations, lectures, and musical concerts including the popular Summer Session Symphony Orchestra sponsored by the Summer Session in cooperation with Local 73 of the American Federation of Musicians through a grant from the music performance trust fund of the recording industry. In 1952 the Andahazy Ballet Borealis Company was presented with the Summer Session Orchestra in a performance that attracted an overflow house.

Friday night social dances, sports tournaments, recreational swimming, and excursions to various points of interest were important features.

Newsreels and educational and feature films were sponsored by the Summer Session with the assistance of the Department of Audio-Visual Education.

Trends—Pressure is brought to bear on teachers in service to attend summer sessions to continue their studies. However, many of them are required to return to their duties the last week in August. If the University of Minnesota is to continue to attract these teachers to its Summer Session, it will be necessary to end the second term a few days earlier. This could be accomplished by conducting either one long session or two terms of five weeks each.—THOMAS A. H. TEETER, dean.

DIVISION OF LIBRARY INSTRUCTION

Enrollment in the Division of Library Instruction, which took a sharp upturn during the biennium ending in 1950, continued at a high level (148 students) during 1950-51, but returned to almost the 1948 level (115 students) in the fall of 1951. This decrease followed the normal pattern of decline as veterans, studying with government financial aid, began leaving the University. An additional factor contributing to the drop in registration, however,

was a slightly more rigid application of admission standards in 1951 than had been the practice in previous years. On June 30, 1952, students enrolled for the Master's degree program numbered 35.

With the adoption of higher standards for the certification of school librarians by the state of Minnesota during this biennium, Summer Session enrollment has had very little decline, as school teachers have been returning to the University to obtain the additional credits needed for certification.

The increase in the proportion of men, which was noted during the previous biennium, has continued, in accord with the national pattern of library school enrollments, owing largely to the higher salaries and favorable placement opportunities which have characterized the library employment picture since World War II.

An analysis of placement activity in the Division of Library Instruction reveals that approximately 33 per cent of our graduates have gone into public or county library work or state extension activity, 25 per cent each into college (and university) library work and school library positions, and 18 per cent into hospital and other special library positions or positions with the national government.

Salaries for graduates, which averaged \$2,700 during the previous biennium, now focus at \$3,000.

Curriculum changes during the biennium led to the discontinuance of the new program at the General College level for library technicians and the decision not to offer the sequence in hospital librarianship during 1951-52, in order to permit the more effective application of the Division's total resources to the strengthening of the basic program, and especially the new Master's degree curriculum.

Faculty changes made the job of consolidating the new program especially difficult when the director of the Division, E. W. McDiarmid, accepted a new appointment as dean of the College of Science, Literature, and the Arts in July, 1951. During the second year of the biennium, responsibility for the Division was assigned to E. B. Stanford, serving as acting director, as well as acting University librarian.

The resignation of Mildred Methven, instructor, in the spring of 1952, left the Division without anyone responsible for the public librarianship side of the new program, although steps were immediately initiated to locate a replacement.

By December 1951, the long felt need for some full-time responsible assistant to be regularly available in the Division to represent the director seemed to become critical, so Ethel K. Sullivan, of the Librarian's office, was appointed as assistant to the acting director for the remainder of the biennium. This appointment, handled very capably by Miss Sullivan, contributed materially to the successful conclusion of this transition academic year by making available to faculty members and students alike a person well qualified to see that most of their day-to-day needs were met effectively and promptly.

The crucial need of the Division in the immediate future is for the addition of sufficient faculty to handle adequately the increased teaching load resulting from the Master's degree program, and the appointment of a full-time director or assistant director. Both the University Library and the Division of Library Instruction have grown in recent years to a point which makes it impossible for a single administrator to give either undertaking the full-time consideration it presently needs and justly deserves. The adoption of new standards of accreditation for professional training by the American Library Association during the biennium gives some urgency to this problem if training in library science at the University is to maintain its accreditation when its standing comes up for re-examination a year or two hence.

During the biennium H. W. Wilson established the H. W. Wilson Scholarship Fund to provide financial assistance to deserving students in the Division of Library Instruction. It is the donor's intention to add annually to the fund until its principal can provide earnings sufficient to finance one or more scholarships for library school students each year. Also during the biennium substantial contributions (mainly by alumni) were added to the Frank K. Walter Lecture Fund established to honor the founder and first director of the Division.—EDWARD B. STANFORD, *acting director*.

INSTITUTE OF CHILD WELFARE

Research—In the biennium, 33 new research projects were undertaken. These, added to 18 projects continued from earlier years, made a total of 51 active projects. Thirty-three research projects were completed, of which 20 had been continued from earlier years.

Nursery School, Kindergarten, and University Village Play Center—During 1950-51 the average enrollment per quarter in the Nursery School was 46, and during 1951-52 it was 47 per quarter. The Kindergarten enrollment averaged 24 per quarter in 1950-51, and 25 in 1951-52. Both schools were in session during the first summer term each year. The University Village Play Center was in session during 1950-51 on a full-day basis with an average enrollment per quarter of 94, and in 1951-52 on a half-day plan with an average enrollment of 64 per quarter.

Instruction and Enrollments—For 1950-51 the total enrollment in Institute classes on the campus, both undergraduate and graduate, was 2,822, and for 1951-52, 2,435. Three students received Ph.D. degrees and 24 M.A. degrees with majors in child welfare.

Parent Education—The parent education program is summarized in the accompanying table.

SUMMARY OF PARENT EDUCATION ACTIVITIES

	1950-51		1951-52	
	No. Groups	Enrollment	No. Groups	Enrollment
Extension courses				
Credit	8	215	7	108
Correspondence courses				
Credit	4	145	4	87
Noncredit	2	48	2	52
Study groups for parents	18	1,457	12	1,876
Lectures to parent groups	48	.....	49	.....
Radio talks	4	.....	3	.....

Publications—During the biennium, 37 scientific and professional articles, 2 scientific monographs, 1 book, and 8 popular or semiprofessional articles, exclusive of book reviews, were published.

Other Activities—In the biennium, members of the staff gave 341 lectures or addresses to various groups, societies, and organizations, both lay and professional. As in previous years, exhibits for organizations, radio 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 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

Changes in Committee Structure—A newly constituted standing committee of the University Senate served the Bureau of Institutional Research in an advisory capacity during the 1950-52 biennium. This function had previously been served by a special administrative committee appointed annually by the President since 1924. By amendment to Senate By-Laws in 1950, this administrative committee was replaced by a Senate Committee on Institutional Research appointed to "... advise the Bureau of Institutional Research with respect to studies to be undertaken, studies to be given priority, and any basic policies or procedures connected with the Bureau's activities." (*Senate Minutes*, May 25, 1950.) This action brought the Committee and the Bureau into closer relation to the faculty and provided a method of reporting through the *Senate Minutes*.

Russell M. Cooper, assistant dean, College of Science, Literature, and the Arts, and chairman of the previous administrative Committee on Institutional Research, since 1947, continued as chairman of the Senate Committee during the biennium. Other members who served during this period were as

follows: John G. Darley, Ruth E. Eckert (1950-51), Dale B. Harris (1951-52), Palmer O. Johnson (1950-51), Thomas L. Joseph (1950-51), John E. King, Wilbur L. Layton (1951-52), Elio D. Monachesi, Carl Nelson, Milo J. Peterson, Lloyd H. Reyerson (1950-52), E. B. Stanford, and R. E. Summers. In addition, three student members were appointed in 1951: Orvis Engelstad, Dan Haney, and Marilyn Pearson. Three other faculty members served in *ex officio* capacity: Cyril J. Hoyt, Robert J. Keller, and Malcolm M. Willey.

As noted by changes in committee membership during the biennium, the Committee continued its efforts to secure broad representation from various colleges and departments and to add new members to replace some who had served well for a number of years. In this respect the service and continuous support of three members should be particularly recognized. Ruth E. Eckert, Palmer O. Johnson, and Thomas L. Joseph, who left the Committee in 1951, contributed greatly to the Bureau of Institutional Research program and activities during their long membership on the Bureau Committee.

The addition of students to Committee membership in 1951 necessitated a change in Senate By-Laws which had provided for an eleven-member committee. This change was made on May 15, 1952, by the adoption of an amended by-law which provided for a standing committee "consisting of at least ten members." Three reports were made to the University Senate during the biennium.

Bureau Offices and Personnel—The Bureau of Institutional Research continued to share offices and facilities with the Bureau of Educational Research. The two bureaus, collectively called the Office of Educational Research, were supervised by Doroless H. Wardwell, who also served as secretary for the Senate Committee on Relations with Other Institutions of Learning.

During this biennium, the general direction of Bureau activities was furnished by Robert J. Keller, director and associate professor of education. He was assisted by Robert B. Sutton, research associate and assistant professor of education who held chief responsibility for consultation on examinations. Dr. Sutton left the Bureau in June, 1952, to become an assistant professor at Ohio State University.

A substantial amount of the Bureau program was carried by part-time personnel appointed as research fellows or research assistants. That the Bureau performed an apprenticeship training function is illustrated by the subsequent positions of graduate assistants who served during this biennium. John E. Dobbin, research fellow through November, 1950, became director of the Cooperative Test Service. Harold E. Mitzel, research assistant and later research fellow, was appointed in June, 1952, an assistant professor and research associate in the Office of Research and Evaluation, College of the City of New York. Robert K. Mower (1950-51) resigned to accept a teaching position at Panama Junior College. Kalmer E. Stordahl (1950-51) transferred to another graduate assistantship during 1951-52 and was subsequently appointed to the communications research staff at the University of Illinois in 1952. Research fellow, Margaret B. Abernathy, and research assistants Huan Pao Kuang and Peter Rempel (1951-52) have remained with the Bureau of Institutional Research.

University Senate Studies—President Morrill at the fall 1950 meeting of the University Senate requested the Bureau of Institutional Research to make two surveys: First, a survey of faculty activities to determine the nature and extent of present activities carried by the University faculties, and second, a study of course additions, modifications, and deletions. The first of these studies was divided into three projects: (1) a fall quarter (1950) questionnaire survey of faculty activities for all members of the academic staff with rank of instructor or above; (2) a continuous study of faculty activities reported every two weeks on diary-type forms by random samples of staff during winter and spring quarters, 1951; and (3) a separate survey of activities performed by graduate assistants, 1950-51. The survey on policies and practices in course additions, modifications, and deletions was focused upon the departmental level and was undertaken cooperatively by the bureau and the Senate Committee on Education Subcommittee on Curriculum under the chairmanship of Ruth E. Eckert.

Reports of "The 1950-51 Survey of Faculty Activities at the University of Minnesota" by Robert J. Keller and Margaret G. Abernathy appeared in a

41-page multilithed bulletin published by the Bureau in December, 1951, and in the *Senate Minutes*, 1951-52, No. 3. In broad terms the University faculty's average workweek was found to be slightly more than 48 hours, approximately one-half of which was devoted to teaching or work with students; one-third, to research and scholarly activities; and one-sixth to administrative and service activities. The survey of course changes was still in progress at the close of the biennium, as was the survey of graduate assistants.

Studies of Higher Education—The publication by the University Press of the Minnesota Commission on Higher Education report, *Higher Education in Minnesota*, summarized many Bureau studies of post-war years. The fact that many others had not been reported led to the preparation of approximately thirty manuscripts which summarized Bureau studies for the period 1942 to 1950 which had not appeared in the Commission report. These reports will appear in the series, *Studies in Higher Education*, published by the University of Minnesota Press, new issues of which had not appeared since 1940-42. Most of the work on the preparation of these manuscripts was completed during the 1950-52 biennium.

Learning Studies—In accordance with the high priority accorded learning studies by the Committee on Institutional Research, three such studies were initiated or continued during the biennium. The evaluation of laboratory and demonstration techniques as taught by different instructors in elementary college physics, a pilot study of which was conducted by the Bureau, was continued as a Ph.D. dissertation by Haym Kruglak, an instructor in physics. The appraisal of the introductory professional course-sequence in secondary education was continued through the collection of student ratings one year after their experiences in this sequence of courses. A pilot study contrasting two different methods of organizing instruction in physiology for freshman medical students carried this type of investigation into a third college. Two related projects included Bureau cooperation with the College of Science, Literature, and the Arts Committee on Improvement of Instruction in its student-teacher ratings project and a survey of student reactions in the introductory humanities sequence in the same College.

Evaluating Outcomes of General Education—The Bureau participated with various colleges of the University in the American Council on Education-sponsored Cooperative Evaluation of General Education. Local studies to determine the usefulness of instruments developed nationally for this study and those developed locally were initiated and in some instances completed during this biennium. Of particular significance was a General College evaluative survey which included pre- and post-testing during 1951-52 using tests developed by the Cooperative Evaluation Study and the locally-developed General College Comprehensive Examination. Other studies in this area included an evaluation of outcomes in the English-communication area through use of the 1950 Revision of the Michigan Achievement Test as pre- and post-tests for samples of approximately a thousand students drawn from four English-communication programs on the St. Paul and Minneapolis campuses. Norms for the Aliferis Music Achievement Test were developed by the Bureau in cooperation with James Aliferis and a grant from the Graduate Research Fund. This test was also employed to contrast student performance in three music courses as one attempt to appraise outcomes of music achievement as they related to general education.

Follow-up Studies—Most significant of the follow-up studies carried by the Bureau during this biennium was the "Survey of Recent Ph.D.'s." This study brought a response from 87 per cent of the 1,315 former students who earned a Ph.D. degree at the University of Minnesota between 1935 and 1949. These respondents completed a six-page printed inventory describing their present characteristics, employment, attitudes toward and evaluation of their graduate education. Additional information was secured on financing of graduate education, research activities since graduation, and publications. College teachers were also asked to complete additional information which would help to appraise the preparation they had received in their graduate education for this kind of responsibility. Statistical analyses for many of these items were completed during the 1950-52 biennium. Other follow-up studies included further analyses of the study of former students from the

College of Science, Literature, and the Arts; the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine; and the General College.

Miscellaneous Studies—A number of other investigations were in various stages of completion during this biennium. Included were the following: A study of undergraduate library needs and use; a prediction study in veterinary medicine; an analysis of psychiatry attitudes questionnaires; two studies of the achievement of junior college transfer students; a 1952 revision of the study on the location of junior colleges in Minnesota and a survey of basic science examinations, procedures, and certification practices of the Minnesota State Board of Medical Examiners.

Examinations Consultantship Service—During the 1950-52 biennium Robert B. Sutton served as examinations consultant for the Bureau. In cooperation with the Senate Committee on Education's Subcommittee on Evaluation of Instruction, he helped to establish and conduct in-service faculty seminars on examinations problems in several departments and colleges of the University. Special assistance on individual faculty or departmental problems was also given in many instances.

Cooperation with Other Departments or Agencies—As demonstrated in this report the work of the Bureau extended into many departments and agencies of the University and outside the University. Other units have frequently assisted in research activities both in an advisory capacity and in actual conduct of studies. Problems have come to the Bureau, during this biennium as in the past, from individual faculty members, the University Senate, all-University committees, and committees of a single department or college. Without such cooperation on the part of these individuals and the guidance of the Senate Committee on Institutional Research, the impact of Bureau studies would be small indeed.—ROBERT J. KELLER, *director*.

DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

The past biennium has been one of trying to reduce operational costs necessitated by a large building program which was completed in the 1948-50 biennium. This was doubly urgent and necessary because of the large debt service on the completed building program and reduced income from gate receipts in intercollegiate athletics, and the accident and destruction of a portion of the parapet wall and newly constructed lobby of Williams Arena due to an unusually heavy snowfall. This type of accident is not covered by insurance.

This could have assumed catastrophic proportions had it happened a few days later when thousands of high school youngsters and fans were attending the State High School Basketball Tournament.

The accident was caused by the pressure of accumulated snow which cascaded from the roof causing the collapse of the parapet wall. This wall crashed onto the lobby roof completely destroying the lobby and the skate room of the hockey arena. Three workers miraculously escaped death in the accident. Two of these men were slightly injured.

With temporary repairs, it was possible to use the building throughout the year. Safety measures have been taken to prevent a recurrence in case of another unusually heavy snow. One-third of the lobby was rebuilt in 1951, another one-third will be reconstructed in 1952, and the remaining one-third completed in 1953.

Much credit is due members of the staff for their willingness to cooperate in reducing expenditures in their budgets as well as taking on additional duties in teaching, coaching, and clerical work in order to make budgetary retrenchment.

There have been several changes in the personnel of the department during the biennium: Bernard W. Bierman resigned his duties as head football coach, after 17 years of devoted service to the University, but continues his connection as a staff member. Bert Baston, who gave his services to the University for many years, retired from coaching. Assistant coaches Dr. George Hauser, George Svendsen, and John Roning resigned along with Mr. Bierman. To fill this vacancy Wesley Fesler was appointed head football coach. Mr. Fesler chose as his assistants: Lyal Clark, line coach; Richard Fisher, back-

field coach; George Nash, end coach; and Earl Svendsen, assistant line coach. On a temporary basis, due to eligibility of freshmen in 1951, Bob Bjorklund, Bob Kreiger, and William Garnaas assisted on the football staff. In 1952, on the permanent staff will be John Kulbitski as head freshman coach, assistant track coach, and instructor in physical education.

Dave Bartelma, wrestling coach and professor of physical education, resigned to accept a position at the University of Colorado. He has been replaced by Wallace Johnson who will be head wrestling coach, varsity "B" football coach, and instructor in physical education. Ray Chisholm resigned as boxing coach and was replaced by Frank Wolinski on a part-time basis. Elwin Romnes resigned as hockey coach and was replaced by John Mariucci on a part-time basis. Tom Swain, ticket manager, resigned in 1951 to accept a position as convention bureau manager for the St. Paul Chamber of Commerce. The positions of athletic manager and ticket manager were consolidated and Marshall Ryman was given these duties. Burton Kingsley, who had worked on a part-time basis in charge of athletic admissions, was put on full time as manager of athletic admissions and in charge of facilities.

There has been a genuine need for creating a warm and friendly interest in the athletic program of the University of Minnesota. An attempt to meet this need has been made by holding free clinics for high school coaches in football, basketball, baseball, hockey, track, gymnastics, wrestling, swimming, golf, and tennis. These clinics are very well attended and have performed a definite needed service to the high schools of the state. The staff has made every effort to speak and show movies of Minnesota teams in action at high school banquets, civic luncheons, and dinners, and to alumni meetings in Minnesota and other states. A total of 500 appearances has been made by the staff during the biennium.

The McCormick Plan of recreation in operation for the biennium has shown steady growth, with increased interest. This is a sound policy with a small recreation fee which makes it possible for students to participate in these recreational sports. The following table shows the increase in participation which indicates the student adoption of the plan.

	Golf	Tennis	Skating	Total
1950-51	14,416	7,685	8,128	30,229
1951-52	18,567	10,239	11,683	40,489

The record for the intercollegiate teams is as follows:

	1950-51			1951-52		
	Won	Lost	Tied	Won	Lost	Tied
Baseball	15	10	.....	3	5	1
Basketball	13	9	.....	17	14	.....
Boxing	3	3	1	1	5	1
Cross Country	2	2	.....	3	1	.....
Football	1	7	1	2	6	1
Golf	5	2	1	7	2	1
Gymnastics	8	1	.....	6	2	.....
Hockey	14	12	.....	13	13	.....
Swimming	1	6	.....	1	6	.....
Tennis	1	4	.....	3	4	.....
Track	2	3	.....	1	4	.....
Wrestling	9	2	.....	5	3	.....

For 1951 we were somewhat handicapped by installation of a new system and presence of a number of freshmen boys who had never competed in collegiate athletics before. However, Paul Giel, a sophomore, broke the Conference record for yardage gained.

Each year the department conducts a number of special events in addition to the regularly scheduled activities. Some are conducted by the Department but others are carried on in cooperation with the state or Twin Cities schools. A list of these special events follows:

1950-51

1. Intersectional ice hockey series with Columbus Canadiens.
2. State high school championship meets in tennis, golf, track, basketball, gymnastics, swimming, wrestling.
3. Twin Cities high school football game.
4. Region 5 championship meets in golf, tennis.
5. Northwest open track meet.
6. Northwest gymnastic meet.

7. Minneapolis high school championship meets in track, gymnastics, basketball, swimming, hockey.
8. Football coaches clinic.
9. Northwest fire school.
10. Basketball tournaments: NCAA, District 17, District 18, Region 4, Region 5.
11. Hockey tournaments: Region 2, Region 6.
12. Track meets: District 17, Metropolitan.
13. National junior badminton tournament, state badminton tournament.
14. American Red Cross life saving classes.

1951-52

1. Intersectional ice hockey series with Columbus Canadiens.
2. State high school championship meets in tennis, golf, track, basketball, wrestling, swimming, gymnastics.
3. Basketball tournaments: Twin Cities high school, District 17, District 18, Region 4, Region 5.
4. High school hockey championships: District 14, Region 2.
5. Olympic skating tryouts.
6. Northwest gymnastic meet.
7. Minneapolis high school championship meets in basketball, track, swimming, gymnastics.
8. District 17 golf championships.
9. Western junior open golf tournament.
10. Golf clinic.
11. Football coaches clinic.
12. Metropolitan track meet.
13. State badminton tournament.
14. American Red Cross life saving classes.

Physical Education—The physical education division, which has the supervision of programs in the three main areas: organized class physical activity programs, professional preparation in physical education and recreation (including work on the undergraduate and graduate levels), and intramural athletics, has maintained these programs with expansion in some areas and retrenchment in others.

Because of the need for professional recreation workers in hospitals and similar institutions a curriculum in "hospital recreation" on the graduate level was added two years ago. This program has proved to be highly successful. Four students completed the work in June and received the master of education degree. All of them took positions in hospitals. Many more could have been placed had they been available. The establishment of this curriculum was a real service to the state.

Approximately 250 students, including 100 in the recreation leadership area, were registered each year in the various teacher education areas. This number is smaller than that of the previous biennium. However, according to supply and demand statistics the enrollment figures are good. A stable situation has been reached and most of the graduates receive positions in the field. A screening process inaugurated two years ago in cooperation with the College of Education has been well worth while.

Graduate work has progressed favorably. Due to the gradual elimination of the G.I. student the numbers have decreased. However, there has been a continuous effort to keep the level of graduate work high in all of the areas. The total number of students taking work toward the M.Ed. degree in physical education and recreation and the M.A. and Ph.D. in physical education during each of the past two years is approximately 40.

The number of students enrolled in the required and elective classes in physical education is still relatively small. During the past year through additional offerings, more simplified registration procedures, and increased electives, an attempt was made to interest more students in physical activities programs. The results, however, were discouraging. A greater effort, with special attention given to freshmen during the welcome week program, is to be made this coming year with the hope that more students will become acquainted with the opportunities available and interested in participating in a healthful, recreational program. It is evident that some sort of requirement is needed if the University is to be of service to students in the physical activity area. Indoor facilities are available for a far greater number of students than are presently using them.

The intramural program of recreational athletics has continued to be popular. These activities, however, are held mostly in the late afternoon and at night and consequently are not readily available to a large segment of the student population that lives at home, away from the campus. The regular, required class activities would be more appropriate for this group.

TABLE I. STATISTICS ON INTERCOLLEGIATE ATHLETICS, 1950-52

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. Varsity Plain Garment Awards†		No. Freshman Candidates*		No. Freshman Numerals Awarded		No. Games Won		No. Games Lost		No. Games Tied	
	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52	50- 51	51- 52
	Baseball Siebert	25	31	12	14	13	17	59	110	29	110	24	24	24	24	15	14	8		30		17	13	15	17	10	14	0	0
Basketball Cowles	22	22	14	14	8	8	129	107	16	107	16	17	16	17	14	14	2		113		22	15	13	15	9	7	0	0
Boxing Chisholm	7	7	2	3	5	4	66	48	43	48	22	22	11	19	9	11	9		23		8	6	3	1	4	5	1	1
Cross Country Kelly	4	4	2	2	2	2	12	13	8	13	8	9	6	7	3	3	3		4		1	2	2	3	2	1	0	0
Football Bierman—Fesler	9	9	7	6	2	3	141	188	65	188	60	58	52	54	45	38	11		76		41	33	1	3	7	5	1	1
Golf Bolstad	8	10	3	5	5	5	33	39	17	39	14	28	13	12	9	8	5		16		10	4	5	7	2	2	1	1
Gymnastics Piper	9	8	7	7	2	1	33	27	18	27	11	14	9	11	8	6	1		15		3	4	8	6	1	2	0	0
Hockey Romnes	26	26	8	10	18	16	83	51	37	51	21	25	20	25	15	13	3		46		15	14	14	13	12	13	0	0
Swimming Thorpe	7	7	6	6	1	1	57	41	32	41	23	26	14	15	7	9	7		25		10	10	1	1	6	6	0	0
Tennis Brain	5	7	4	5	1	2	35	39	19	39	12	12	6	7	6	6	0		16		3	4	1	3	4	4	0	0
Track Kelly	5	5	5	5	0	0	62	40	31	40	20	35	16	23	11	12	6		31		5	13	1	2	4	3	0	0
Wrestling Bartelma	11	8	6	4	5	4	66	49	27	49	14	18	14	13	9	10	5		39		9	3	9	5	2	3	0	0
Totals	138	144	76	81	62	63	776	752	342	752	245	288	201	227	151	144	60		434		144	121	73	76	63	65	3	3

* Freshmen eligible for varsity competition in 1951-52.

† Plain garment awards discontinued in 1951-52.

The intramural program does reach a large number of men and meets a need for recreational activity for many students. It is unfortunate that indoor facilities are not used more by the general student body during the daytime

TABLE II. INTRAMURAL PARTICIPATION*

Activity	Number of Men Participating, 1950-51	Number of Men Participating, 1951-52
Archery	32	35
Badminton	160	180
Baseball	200	250
Basketball	2,385	2,365
Bowling	1,722	1,434
Boxing	124	151
Fencing	48	51
Golf	176	138
Handball	54	41
Hockey	351	370
Horseshoes	35	41
Softball	970	1,250
Squash	30	28
Skating		
Swimming	94	88
Table tennis		
Tennis	236	214
Touchball	774	757
Track	174	148
Volleyball	102	225
Wrestling		
Total number participants	7,667	7,766

* These figures include tournament play only. A large number should be added to bowling, golf, and tennis because many were accommodated who did not enter tournament play.

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 enrollment figures in the college instructional program have been quite stable for two bienniums. The average number of individuals per term during this biennium, 852, and the average total registrations per year, 2,552, are both slightly more than the numbers for the previous biennium. The average total participations for the biennium, 6,475, is slightly less than the figure for the 1948-50 biennium.

The enrollment figures in the recreational program are slightly higher than those of the 1948-50 biennium. The average number of individuals per term, 1,399, and also the average total registrations per year, 4,198, for this biennium are both 7 per cent higher than these figures for the previous biennium. The average total participations for the biennium, 13,076, is about the same as those of the previous biennium.

The enrollment figures for those majoring and minoring in physical education at both undergraduate and graduate levels have been increasing for two bienniums; the average per year for this biennium is 103.5 students. The number of students from other departments who have taken advantage of the professional offerings of the department has been increasing for three bienniums; these students account for about a third of the average total registration per year, 1,257 in this biennium.

Chief Accomplishments—One staff study has been accepted for publication, four other studies by two staff members are well under way, and work is being continued on three manuscripts. Ten staff members have given a total of 1,167 hours of service during the biennium to national, district, state, and local organizations.

In each year of the biennium, the department has conducted three projects in relation to students, one in relation to parents, and a larger number of staff have participated in national, district, and state conferences, committees, and surveys. In addition, the February institutes have brought a total of 805 participants to the department.

The scope and number of student-created and directed events under staff sponsorship have grown. During this biennium four of such events were presented annually.

A new graduate course, Contributions of the Basic Sciences to Physical Education, was added to the advanced offering in the summer of 1951.

Problems and Plans—The current retrenchment program has forced the dropping of about one-tenth of the offering in the college instructional program and thereby has caused the curtailing of the approach to student needs and interests, the increasing of staff load, and the reduction of time for research and creative writing.

Follow-up studies of the reorganization of the undergraduate professional program are being planned in relation to desirable electives within the field of physical education, relationships between the various special methods courses, and the total student teaching program.

Two more graduate courses are being planned: "Evaluation of School Health Education" and "Physical Education for the Handicapped."

A research laboratory within the department is greatly needed for the study of skill improvement, and to provide working space for research on these and staff research.

There is need of more staff help to better meet the interests and needs of the college women students and to prevent overloading staff who are both capable and interested in doing creative writing and research.—*GERTRUDE M. BAKER, director.*

MINNESOTA GEOLOGICAL SURVEY

The 1950-52 biennium was a continued period of increased activity. Not only were the planned programs extensive but also there was a large increase in requests for information from governmental agencies, corporations, and citizens. These requests cover the whole range of geological problems and often tax the ingenuity of the staff to furnish a satisfactory answer.

The largest project was the continuation of the cooperative airborne magnetometer survey of the major part of the northern half of Minnesota by the United States Geological Survey. The payments on these contracts for the biennium aggregated \$12,500. The program will be completed, for the present, with the final payment of \$6,500 for which funds have been allotted. To date preliminary or published maps have been released that cover 33,800 square miles and an additional 5,000 square miles are covered by the present contract.

Professor W. C. Bell and several graduate students have continued the revision of the stratigraphy of the Cambrian and Ordovician rocks of Minnesota. As a result of this work several papers have appeared in professional journals and these are listed below. Malcolm Weiss has completed a detailed study of the Middle Ordovician Period of Fillmore County as a part of the major project.

Professor Herbert Wright, Jr., and his students have carried on their studies of the glacial geology of the state and major revisions of the early reconnaissance work now appear to be necessary. Leonard Weis has been supported in field work for two seasons in the Brainerd area, a key locality in the glacial geology. His report, which will be presented as a thesis for the doctor of philosophy degree, will be completed during the calendar year 1952-1953.

Professor G. M. Schwartz made a reconnaissance of Koochiching and Beltrami counties in July, 1950 to obtain a basis for geological summaries to accompany the aeromagnetic maps of that area. Geological summaries have been prepared for the 24 geophysical maps published to date.

During the field season of 1951 work was started by James W. Dalrymple, Jr., on the Soudan area. This is the beginning of a comprehensive study of the iron ore deposits and associated rocks of the oldest iron mining area in the state, the Vermillion district. Essentially no detailed data have been published on the mines of that district for 50 years. The long range program is under the supervision of Professor Schwartz and the active cooperation of the principal mining company operating in the district has been assured.

David White worked during the summer season on a detailed study of the structure of the Mesabi district as reflected by the attitude of the contact at

the base of the Biwabik iron-bearing formation and the top of the Pokegama quartzite. Mr. White continued field work on March 20, 1952 and will complete this phase of the work during the 1952 field season. It is hoped that this work will provide a key to the reason for the concentration of iron ore at particular places. Mr. White is working under the supervision of Professor J. W. Gruner and will present the results as a thesis for the degree, doctor of philosophy.

During the field seasons of 1950 and 1951, Professor Merle Harris of the General College visited several state parks and accumulated the data necessary to prepare articles on the geology of the parks for publication in the *Conservation Volunteer*. A series on the parks was started in 1947 and contributions have been made by several geologists. Professor Harris will complete the series which will be published by the *Volunteer* as space permits. On completion the Conservation Department will reprint the entire series as a booklet which will then provide authentic data on the geology of each state park.

During the field season of 1951 Professor Harold Mooney, assisted by Rodney Bleifuss, were given field expenses to enable them to make measurements of the magnetic properties of a wide variety of rock formations in northern Minnesota. This information is fundamental to an interpretation of the magnetic anomalies obtained in the aeromagnetic work. The work is in cooperation with the Institute of Technology.

During the summer of 1951 announcement was made of the discovery of a copper-nickel deposit near Ely. The director of the Minnesota Geological Survey was called upon at once to help evaluate this discovery. Considerable work in the field and laboratory has been done and a preliminary report was given at the American Institute of Mining Engineers annual meeting in New York. Conferences with several of the leading nickel and copper mining companies have been held and further work will be done in 1952.

The director of the Survey has continued as chairman of the State Mapping Advisory Board. A large part of the coordination of the topographic mapping program has thus fallen to the director who also is technical adviser to the commissioner of Iron Range Resources and Rehabilitation on a large program of topographic mapping confined to the iron ore districts.

During the biennium a general treatise of the geology of Minnesota in nontechnical language has been prepared by Professors G. A. Thiel and G. M. Schwartz and is now in the University Press for Publication as Bulletin 37.

Professor Emeritus F. F. Grout prepared a bulletin entitled *The Titaniferous Magnetites of Minnesota* which incorporated work of the Minnesota Geological Survey on these deposits. This was published by the commissioner of Iron Range Resources and Rehabilitation.

Publications—The following publications were issued during the biennium: Theodora G. Melone and Leonard W. Weis, *Bibliography of Minnesota Geology*, Minnesota Geological Survey Bulletin 34, 1951; James H. Zumberge, *The Lakes of Minnesota, Their Origin and Classification*, Minnesota Geological Survey Bulletin 35, 1952.

Papers based on the work of the Survey but published in scientific journals are as follows: C. R. Stauffer, "Some Pleistocene Mammalian Inhabitants of Minnesota." *Proceedings Minnesota Acad. Science* 13:20-44, 1945; G. M. Schwartz, "Water Conservation—Today and Tomorrow." *Conservation Volunteer* 14: No. 84:5-11, 1951; F. F. Grout, J. W. Gruner, G. M. Schwartz, G. A. Thiel, "Precambrian Stratigraphy of Minnesota." *Geol. Soc. of America* 62: 1017-1078, 1951; C. A. Nelson, "Cambrian Trilobites from the St. Croix Valley." *Jour. of Paleontology* 5: 765-784, 1951; G. M. Schwartz and G. A. Thiel, "Dimension Stone in Minnesota." *Mining Engineering*, pp. 77-80, January 1952; W. C. Bell, O. W. Feniak, V. E. Kurtz, "Trilobites of the Franconia Formation, Southeast Minnesota." *Jour. of Paleontology* 26: 175-198, 1952.

Articles on the State Parks prepared under the auspices of the Minnesota Geological Survey were published by the *Conservation Volunteer* as follows: J. H. Zumberge, "Geology of Scenic State Park." 13: No. 77: 22-24, 1950; J. Merle Harris, "Geology of Buffalo River State Park." 14: No. 80: 49-52, 1951; J. Merle Harris, "Beaver Creek Valley State Park." 14: No. 83: 48-52, 1951.—GEORGE M. SCHWARTZ, director.

THE MINNESOTA ALUMNI ASSOCIATION—DEPARTMENT OF ALUMNI RELATIONS

The first stage of alumni re-organization has been accomplished. The basic machinery has been set up, staff secured, and a long range plan put into operation. The work of the Association is done through six divisions: records, mailing, membership, field services, publications, and business management and promotion. The work of each division is coordinated and integrated so that a maximum of work is accomplished with the minimum of staff. The scope and content of the alumni program are sound. The results which are only now beginning to appear will increase with every year.

Officers—The officers for 1950-51 were president, Dr. Harvey Nelson, '25 Med; first vice president, Wells J. Wright, '36 L; second vice president, Mrs. Harold Eberhardt, '31 A; secretary, Victor A. Christgau, '24 Ag; and treasurer, Arnulf Ueland, '17 A. For 1951-52, president, Wells J. Wright, '36 L; first vice president, L. E. Johnson, '29 IT; second vice president, Mrs. Harold Eberhardt, '31 A; secretary, Victor A. Christgau, '24 Ag; and treasurer, Arnulf Ueland, '17 A.

Office—In 1950-51 the number of staff increased to 19 full-time persons and 4 part-time workers; but in 1951-52 the staff was reduced to 17 full-time workers and 3 part-time workers.

Field Services—During the biennium a total of 15 new alumni clubs were formed in the state of Minnesota bringing the total to 33. These clubs averaged more than three meetings per year during the two-year period. Five new clubs were formed outside Minnesota for a total of 39 clubs. These clubs averaged 2.44 meetings for the two-year period. For each year of the biennium alumni meetings and contacts were made in an average of 73 communities.

The University of Minnesota Week is growing steadily. Twenty-one alumni clubs held meetings in 1951, and twenty-three clubs in 1952. The Association, in the spring of 1951, sponsored a "Meet Wes Fesler Tour" to introduce the alumni in the Minnesota communities to the new football coach. Fifteen communities were visited in eight days. The University Workshop in the spring continued to grow with six meetings being held in 1951 and seven in 1952. President Morrill visited four newly formed alumni clubs in the spring of 1952. In order to show the increased scope of field services during the year 1951-52 sixty-two speakers from the campus spoke to alumni clubs, and 133 package programs were requested (films, tapes, slides, etc.). The total attendance at alumni meetings for the year including guests was 22,824.

Minnesota Alumni Scholarships—Started in the late spring of 1949 the program has developed to be the strongest offered by the Association. It has the enthusiastic support of the alumni and educators of the state. In 1950-51 the sum of \$10,000 was received from the Greater University Fund for scholarships. Some 110 alumni serving on the twenty-two alumni districts' scholarship committees screened 312 applications with a total of 38 scholarships being finally granted. In 1951-52 the Association received \$11,500 from the Greater University Fund and the twenty-two alumni districts' committees screened some 415 applications with 44 scholarships being granted.

Membership—During the biennium, membership in the Association has decreased, primarily because of the decreased number of degrees being granted each year. The average membership for 1951 was 12,752; for 1952, 11,696. Membership fee in the Association was raised from \$3.00 to \$4.00 annually; five-year memberships from \$12.00 to \$16.00; and life memberships from \$50.00 to \$65.00. The Life Membership Fund in 1950-51 showed \$105,405.12 and for 1951-52, \$104,570.12. The renewal rate showed a 17 per cent increase over the past biennium with a 39 per cent return. Free membership was extended to military personnel.

Records—The past two years have seen major changes in the records division, which together with the office of membership and mailing was consolidated under the management of an office supervisor. A change-over of master records file to wheel-dex equipment has continued and four units, or 80,000 additional cards, were processed.

Mailing—During the past two years the mailing division has averaged about 625,000 pieces of mail per year. Due to the enactment of Public Law 233, mailing costs have increased about 20 per cent with further increase in prospect for the next biennium.

Homecoming—During the past two years the pre-game buffet luncheon which started in 1949 has been continued with increasing popularity. The program is informal. In 1950 alumni president Harvey Nelson welcomed alumni to the event as did President Wells Wright in 1951. President Morrill, the Regents, the Homecoming King and Queen are always presented to the alumni. Through the alumni office the alumni were supplied with reserved tickets for the varsity show. In 1951 a new feature was added, the naming of the alumni homecoming king, Babe Le Voir, '35.

Alumni Reunion Celebration—The 1951 centennial reunion celebration, May 24-26, was perhaps the largest reunion ever held on the campus with an estimated 4,000 alumni returning. The Classes of 1901, 1906, 1911, 1916, 1926, and 1936 held their reunions. Alumni institutes were held by the Division of Library Instruction, the School of Dentistry, the School of Business Administration, and the Department of Agriculture. The annual alumni day banquet was held May 25 with over 750 alumni in attendance. The Honorable Leroy Matson, '22 BA, '26 LLB, associate justice, Minnesota Supreme Court, acted as toastmaster and Wesley Fesler, Minnesota's new head football coach, was the main speaker.

Over 2,000 alumni returned for the 1952 reunion held on May 22-24. The Classes of 1902, 1907, 1912, 1917, 1927, and 1937 held reunions. The Institute of Technology Alumni Association held a special luncheon with Dean Spilhaus as the main speaker. The student-faculty-alumni tea had over 300 in attendance. Some 500 alumni attended the 49th annual alumni day banquet. Don Rogers, '27 LLB, acted as toastmaster and Arthur "Red" Motley, '22 BA, was the main speaker.

Christmas Reunion—The second and third annual Christmas reunions were held on December 27 both in 1950 and 1951. Over one hundred alumni attended each reunion.

Undergraduate Secretary—This division of the alumni office was very active in 1950. A special brochure for new students was developed, the freshman advisory council continued, and the press conference held for all high school editors in Hennepin and Ramsey counties continued. This division of alumni work was discontinued in 1951, because of lack of funds.

Alumni Committees—The Alumni Association has standing committees on athletics, student affairs, investment, and honors. The special committees during the biennium were membership, ring, and record album. The recommendation of the membership committee for new annual, five-year, and life membership rates was adopted. The recommendation on design for an official University of Minnesota ring was adopted.

Constituent Alumni Groups—Faculties for all colleges, except Business, were contacted concerning the idea of a combined membership constituent society plan. Action by both the Institute of Technology and the Medical School Alumni Association requesting joint membership is awaiting revision of the MAA Constitution permitting same. At the meeting of the Executive Committee, May 6, 1952, it was voted to approve the general idea and plan of constituent alumni societies depending upon the necessary change being made in the by-laws.

Board of Directors—The Board of Directors and the Executive Committee each met three times in both 1950 and 1951. Arnulf Ueland, treasurer, submitted his resignation and President Wells J. Wright appointed Clifford Sommer to fill out the unexpired term.

Plans—There is need now to begin a second stage in the development of the Association's work. This stage moves beyond the mere essentials of the basic plan and undertakes the development of the ultimate in alumni work: increased association revenue, development of constituent alumni societies, the establishment of close and continuous contact with alumni leaders and other key persons throughout the state and nation.—EDWIN L. HAISLET, *director*.

GREATER UNIVERSITY FUND

During this biennium the major feature was the crystallization of the "Special Project Program" as an integral feature of the Fund's annual campaigns.

In 1948 the initial effort of the Fund was directed toward obtaining unrestricted gifts for various purposes to be determined by the Fund's Board of Trustees on advice from the President's Projects Advisory Committee. This had been determined upon without establishing with any certainty the success potential of this kind of campaign among alumni and friends of the University. The first two years of solicitation work, however, indicated that there needed to be strengthening of the interest-drawing potential of our project program. To effect this, the basic policy was changed.

The first step was to eliminate the use of the word "unrestricted" from promotional materials, substituting in its place the title "Student Aid and Research Project Program." Along with this change there began a direct promotion of a variety of specific projects based on college lines or special interests. These projects were designed, as was the original unrestricted project program, to meet specific educational and research needs.

Among these special projects were the E. T. Bell Pathology Museum Fund, Music Development Fund, Grasslands Research Fund, Dental Development Fund, Frank K. Walter Memorial Lecture Fund, and Senior Class Scholarship Fund. Promotion of these as independent projects was the first major departure from the initial unified promotion of unrestricted giving. Promotion of the special projects recognized that alumni and friends of the University entertained a more clear cut interest in affiliation with a person, a department, or an activity, than they did with the entire University as a unit. The success of special project promotion during the biennium supported this theory.

During 1950, 2,313 persons, groups, and organizations contributed a total of \$105,833.07 to the University through the Greater University Fund. In 1951 this figure increased to 3,612 persons, groups, or organizations contributing a total of \$165,857.00.

The "Student Aid and Research Project Program"—formerly known as the "Unrestricted Fund"—continued to be allocated on a 50-25-25 basis. Fifty per cent of all gifts received for this purpose were allocated to Minnesota Alumni Freshman Scholarships, 25 per cent to Greater University Graduate Fellowships, and 25 per cent to the Greater University Graduate Research Fund.

During the two campaigns of the biennium considerable experimental work was done attempting to test the drawing power of mailing materials based on geographic organization, class organization, and college organization. There was a marked absence of success in all attempts to obtain any extensive personal solicitation work among our alumni. Occasional islands of personal solicitation support were developed, but not in any comprehensive form. The difficulty of developing cohesive solicitation organizations without compensating response led the director to devote less time to this kind of activity than had been planned originally.

The direct mail campaign of 1950 consisted of four mailing pieces. The first was a Spring Quarter Greater University Report containing the names of all contributors to the 1949 campaign, as well as various statistics. A second piece, "A Living Endowment," described the 1950 project program. The Fall Quarter Greater University Report on research and other projects was followed by a Centennial greeting card—University Centennial year greetings to Minnesota Alumni—in December. With these mailing pieces were a variety of solicitation letters. The 1950 mailings totaled approximately 170,000.

The 1951 direct mail campaign consisted of the Spring Quarter Greater University Report announcing contributors to the 1950 Campaign, a Fall Quarter Greater University Report, on research and other projects, and an end-of-the-year mailing in November. The 1951 mailings totaled approximately 208,000 pieces.

For the 1950 national campaign Henry A. Scandrett, '98, '00, former president of the Chicago Milwaukee St. Paul & Pacific Railroad, served as national chairman. In 1951, Arthur B. Poole, '17, vice president of the American President Lines, served as the national campaign chairman.

The second major feature of Fund activity in this biennium was a broad intensive program of educating people generally as well as specific groups to the idea of "giving to education." Typical of the form this effort took was the use of a periodic newsletter to 700 alumni leaders. These newsletters discussed the general subject of philanthropy, the pattern of giving on the part of individuals and corporations to philanthropic objectives, the purpose and significance of tax deduction provisions, the relationship of giving to education on the one hand to giving to charity on the other, the difference between restricted giving and unrestricted giving to education, the difference between giving for endowment purposes and expendable purposes, etc. These newsletters also contained questionnaires on what our objectives should be, how our campaign should operate, and whether or not the knowledge that gifts would be invested or not invested would affect interest in supporting our program. The educational program extended to sending both Fund and general University materials to more than 300 bankers, attorneys, and trust officers in the state describing not only the Greater University Fund but the great variety of purposes for which private gifts could be used in the University. Several newsletters were also sent each year to the University faculty interpreting the work being done.

Along with the program of Newsletters and special bequest mailings, a campaign of extensive publicity was carried on through all University publications, news releases, and coverage of special features carried in various newspapers, magazines, and over radio, on projects within the University supported through the Greater University Fund. Extensive personal contact work was also done in the educational phase of the Greater University Fund's development. One example of this type of activity was a luncheon held on the campus for fifty women to demonstrate use of research equipment purchased through the Fund. The director also traveled extensively throughout the east, midwest, and the state, to establish contacts with prominent alumni leaders and alumni as well as friends of the University.

The staff of the Fund office during the biennium consisted of a secretary, account clerk, and clerk-typist. Part-time student help was used to supplement this staff for major mailings. These major mailings were handled through the Alumni Association's mailing room.

Key reference materials in the office were expanded to include over 1,000 separate personal, organization, and corporation files; fund materials on 102 selected colleges and universities; 26 books on all matters related to fund raising; and regular subscription to *Poors Register of Directors and Executives*.

Special publications for the biennium included: a special scholarship issue of the Greater University Report listing all scholarships in the University, the donor, amount of award, and necessary qualifications for each; a special Duluth Branch issue of the Greater University Report; separate pamphlets on the Wesley E. Peik Teacher Education Fund and the Henry L. Williams Memorial Scholarship Fund; and a mimeographed booklet "Invest in Youth," containing various considerations related to the establishment of scholarships at the University.

The Alumni members of the Board of Trustees of the Greater University Fund during 1950 included Arthur R. Hustad, Elmer E. Engelbert, John K. Fesler, Parker D. Sanders, and Mrs. Arnulf Ueland. Mr. Hustad was chairman. In 1951 the Alumni members of the Board were John K. Fesler, Arthur R. Hustad, Parker D. Sanders, Dr. Edward Tuohy, and Mrs. Frank M. Warren. Mr. Fesler served as chairman. Other members during the biennium were President J. L. Morrill, Vice President William T. Middlebrook, Vice President Malcolm M. Willey, and Regent Fred B. Snyder who was succeeded by Regent Lester A. Malkerson. Edwin L. Haislet, alumni secretary, served as secretary of the Board.—STANLEY J. WENBERG, *director*.

INDUSTRIAL RELATIONS CENTER

The Industrial Relations Center, approaching the ninth year of operation, has just passed through two years of its greatest activity. The original purposes, to meet the demand for trained men and women in both management and industrial relations leadership and to provide reliable and timely information as a basis for the cooperation of management and labor, con-

tinue to be the Center's goals. An increased volume of requests from students, government, labor, industry, and the public has necessitated an expansion in Center staff and facilities.

The programming of the Center's activities lies in three areas: Training, Research, and Service to the Community.

Training—The Center serves as a facilitating unit to the schools and departments which offer courses in the broad area of industrial relations. Although members of the inter-disciplinary staff may teach in their respective departments, the Center itself does not offer courses of instruction. No degrees are given as part of the program. Rather, coordination of the many disciplines which make up this field assists students in obtaining broad and comprehensive training.

Several day-school scholarships awarded by unions are processed through the Center to qualified high school graduates. A supervised internship program is also available for industrial relations students who wish to obtain University credits while gaining practical experience in the field.

The cooperation which exists among the social science departments of the University to unify industrial relations courses includes the Extension Division, through which professional training for persons already engaged in industrial relations is provided. Members of the Center staff teach in evening classes in Minneapolis, St. Paul, and Duluth. An Industrial Relations Certificate is awarded to those Extension students who satisfactorily complete forty-five credits of an approved program. Numerous certificates have been earned, and an increasing number of evening students are working toward this goal.

Short courses and conferences are an essential phase of the training function. About ten conferences were conducted in this period and assistance given many other groups in planning and obtaining speakers for related meetings.

Research—This area is the backbone of the Center's program, for progress in this field is dependent upon basic and continuing research. Already, the Industrial Relations Center has achieved recognition for its research; the research program has been facilitated by grants and funds for cooperative projects received during the biennium.

Practitioners in the field participate annually in a survey of salaries, personnel ratios, and costs of operating a personnel department. Other continuing projects include: (1) Minnesota industrial relations Triple Audit studies, which seek to appraise policies and practices in industry. Emphasis in this long-term program recently has been on the effectiveness of in-plant employer-employee communications. An additional phase of the major project is the gathering of data on a nation-wide scale with the assistance of other universities; (2) Trade union leadership program, which is developing effective leadership course materials; (3) Developmental patterns of executive leadership; (4) Union member opinion surveys and relationships of member opinions to union policies and practices.

Completed studies in the biennium are: (1) Patterns of mobility of workers and factors affecting their occupational choice; (2) Attitudes of union members toward their union; (3) Pilot sociometric studies; (4) Comprehension and acceptance of factual information in industrial communications; (5) Vocational interests of operating industrial relations personnel; (6) Methodological studies in industrial attitude surveys; (7) Membership attendance at union meetings; (8) Post-retirement age utilization of manpower in industry; (9) Adequacy of workmen's compensation benefits in Minnesota; (10) Readability and human interest of management and union publications.

Service—As the Center has become established in the community, demands for assistance have often exceeded the staff time and facilities available. More than one hundred addresses were delivered in this period and more than seventy-five professional, off-campus meetings were attended by one or more staff members.

The Center and Extension Division provide funds for a union contact representative who assists in the additional services given to unions.

The Reference Room is the focus of the Center's service activities. A traffic count taken for a two-week period in the spring of 1952 revealed that 419 people used the reference materials. This did not include requests for

information and consultation made by telephone and mail. Three hundred items were loaned from the room in this two-week count.

An additional duty of the Reference Room analysts is the compilation of bibliographies on industrial relations topics. About seventy-five of these special assignments were prepared in the biennium.

Publications—Since the last biennial report, the Center has published three *Bulletins*, six *Research and Technical Reports*, two *Releases*, and two *Reprints*. Numerous articles written by the staff are not included if they were not added to the Reprint Series.—DALE YODER, *director*.

Divisions of Academic Administration

OFFICE OF THE DEAN OF STUDENTS

The complex functions of coordinating the University of Minnesota student personnel services and programs and of supervising the ten bureaus directly responsible to the dean of students have been given careful attention.

During the biennium, we achieved increased coordination among a number of all-University programs. As examples, an orientation commission has been established and a detailed, broad program of consultation and review has been accomplished. There have been increased cooperation and coordinated effort by all dean of students departments, college offices, and various departments in this complex program. The residence counseling programs, including the certification and training of 17 men dormitory counselors, 37 women dormitory counselors, 48 academic and professional fraternity counselors, and 20 sorority housemothers, have been coordinated through the Residence Council and the Residence Board and a regularized head counselor and counselor training program. The Residence Board reviews the qualifications of the counselors and certifies them if acceptable and serves as the technical advisory group for the counseling program. The Residence Council reviews the activities of the various residential units and carries out the programs agreed upon.

Foreign Student Adviser—The foreign student enrollment in the University increased 48 per cent during this biennium, from 386 to 561 students. Students from China, India, and Norway continue to dominate the enrollment figures. The United States government programs brought large numbers of students from Germany and Japan. The number of students attending the University of Minnesota on exchange-visitor visas more than doubled in 1951-52. A special Technical Cooperation Administration program was arranged during 1951-52 to provide practical on-the-job training for foreign students.

Our University ranked sixth among colleges and universities in the number of foreign students enrolled on its campuses. The big brother and sister program resulted from an increased campus interest in international education and educational programs.

Coordinating Religious Activities—The coordinator of students' religious activities continued the program begun in 1947 to promote the general University policy of encouraging a multiplicity of well-rounded programs to serve the wide range of student needs. Each year approximately 68 per cent of the students express interest in religious programs. Examples of University-wide expressions of this interest were Church Night during Welcome Week, Religion in Life Week, and Brotherhood Week. The establishment of the Inter-religious Literature fund by the Board of Regents through a Danforth Foundation gift through Dean Richard L. Kozelka met a pressing need. Important conferences regarding religion and state universities have been conducted at the Center for Continuation Study.

Student Loans and Scholarships—Student financial assistance as reflected in case load and dollar value again increased considerably despite decreased enrollment. The more significant factors appear to be (1) the rising cost of living and increased tax load which have taken an increasing part of family income, thus leaving a lesser proportion available for educational training; (2) the expiration of eligibility time under Public Laws 346 and 16 which has forced veterans to seek loan assistance and other financial help to complete their training; (3) the expansion of state-wide freshman scholarship programs designed to encourage the able but needy youth to attend college; and (4) the increased special services to students through financial aid programs sponsored by government, private industry, and labor unions.

The following table summarizes the numbers of students served and the value of monies involved.

	1949-50	1950-51	1951-52
Number of students interviewed	2,235	2,749	2,673
Number of scholarship applications	536	1,013	1,178
Number of loan applications	712	1,012	1,041

	1949-50	1950-51	1951-52
Total counseling and aid cases	3,059	3,769	3,710
Loan aid from University funds	\$52,951.53	\$97,937.16	\$ 98,365.07
Loan aid through referrals	1,755.00	3,350.00	4,475.00
Scholarship aid through University funds	59,819.00	63,043.75	100,316.14
Scholarship aid through referrals	1,500.00	950.00	1,100.00

In addition to administering these direct student aids, this Bureau clears payments to Chinese and Korean students under grants provided by the United States Government. Such aids totaled \$26,168.75 to 49 students in 1950-51, and \$16,328.00 to 33 students in 1951-52. The Bureau continues to administer the University grants-in-aid program for certain veterans. Grants-in-aid to eligible veterans totaled \$20,660.64 to 328 students in 1950-51 and \$26,096.04 to 257 students in 1951-52. It also approved 129 gift layettes in 1950-51 and 70 in 1951-52.

Student Activities—During the biennium 1950-52, the Student Activities Bureau has continued its functions of supervising, coordinating, and advising student programs. In spite of decreasing enrollment, the number of recognized student organizations has increased from 397 at the end of the 1948-50 biennium to 454 on June 30, 1952. These organizations are varied in their purposes and membership and include cooperatives, fraternities and sororities, governing boards, publications, honorary and recognition organizations, religious and interfaith groups, residential organizations, and special interest clubs.

Attention has become increasingly centered upon educational activities with a corresponding decrease in administrative functions. In 1948-50, there were 8,158 administrative approvals and 28,888 conferences, training programs, and interviews with students. The corresponding figures for 1950-52 are 6,632 approvals and 28,709 conferences.

In addition to its work with individual student organizations, the Bureau has increased student participation in all-University programs. In 1951-52, for example, \$28,996.62 was raised through charitable drives and projects carried on by students under the direction of the Bureau.

By 1951, the new student orientation programs had developed interest to the point of 82.5 per cent freshman participation in the two-day program. There are now six parts in the total orientation program: The two-day Orientation (registration program), Parents' Day, New Student Camps, Welcome Week, New Student Clubs, and the *Moccasin*.

SUMMARY OF SERVICES OF THE STUDENT ACTIVITIES BUREAU

	1950-51	1951-52
Administrative approvals	3,370	3,262
Conference with student leaders	17,144	12,134

Student Conduct—The number of individual discipline and rehabilitation counseling cases was 257 (221 men and 36 women) in 1950-51 and 212 (192 men and 20 women) in 1951-52. This compares with 224 cases in 1948-49 and 250 in 1949-50.

In addition to these individual cases, 12 student organizations were involved in disciplinary incidents in 1950-51. In 1951-52, there were 10. Non-student cases remained approximately the same, 6 for 1950-51 and 5 for 1951-52.

Of the 257 students involved in disciplinary situations during 1950-51, a total of 21 were involved in more than one incident during the current or preceding years. The corresponding figure for 1951-52 was 20 of the total of 212.

Three unique problems which arose during 1951-52 involved more than 30 students in each instance.

Speech and Hearing Clinic—The biennium has seen contraction in the Clinic along with other phases of the program of the Office of the Dean of Students. The office staff has been reduced one-third; the professional staff, approximately 25 per cent; and the number of students served, approximately 25 per cent. At the same time, serious and constructive attempts have been made to strengthen the program by strengthening what was already offered. This is especially true in relation to the freshman testing program, including both the hearing and speech testing, the general work with persons with

hearing losses, and the work with groups, both stutterers and personality oriented cases.

During this biennium, the Clinic provided therapy to 462 students. It gave speech and hearing examinations to 6,537 new students.

Student Counseling—During the 1950-52 biennium, the Student Counseling Bureau continued to provide professional counseling and testing services to University students in spite of financial cutbacks. Some evidence of the essential services is summarized in the following table:

	1950-51	1951-52
Total number of cases	3,520	3,304
Number of interviews	8,193	7,880
Case reports to other counselors	5,749	5,747
Case reviews and consultations	922	659
Number of psychological tests administered	178,604	213,492

The special program of counseling for physically handicapped students provided direct services to 103 physically handicapped students in 1950-51 and 98 in 1951-52. Non-college counseling cases increased from 194 in 1950-51 to 246 in 1951-52. In the Educational Skills Clinic, 575 students were seen in 1951-52, an increase over the 462 seen in 1950-51. The total number of student visits to the clinic decreased directly from 7,544 in 1950-51 to 7,459 in 1951-52. The total number of counseling contacts registered at the faculty-student contact desk was 98,737—51,346 in 1950-51 and 47,391 in 1951-52.

Student Housing Bureau—The residential status of each student enrolled in the University the fall quarter of each year was as follows:

	1950-51		1951-52	
	Men	Women	Men	Women
Parents' Homes*	6,033	3,066	4,875	2,486
Relatives' homes	329	100	311	139
Friends' homes	90	28	86	70
Dormitories†	1,888	1,233	1,900	1,100
Fraternities or sororities	853	276	838	260
Cooperative houses†				
Apartments	1,547	407	1,480	375
Rooming houses	2,476	374	1,811	483
Own or rent own home	775	210	799	221
Employers' homes	180	72	88	45
	14,171	5,766	12,188	5,179

* In Minneapolis and St. Paul, including commuters from the suburbs.

† Includes temporary facilities at University Village, nurses from Powell Hall, and cooperative houses.

An inspection and advisory system makes certain that adequate hygienic standards are maintained and that students live in rooms that are acceptable according to social and moral standards. With the decreased enrollment, there has been a corresponding decrease in the Bureau's load, although not in direct proportion to the decreased enrollment.

	1950-51	1951-52
Interviews with householders	3,303	2,761
Interviews with students	7,569	5,444

The number of approved rooming houses was 4,827 in 1950-51 and 3,034 in 1951-52. During the first year of this biennium, 1,185 Health Service inspections were requested. In 1951-52, the number was 1,034.

The work with rooming house students' organized clubs has continued. During 1950-51, 21 houses had meetings, with from 1 to 8 meetings in a house. In 1951-52, 51 houses had 116 house meetings with from 1 to 10 meetings per house.

Attention to the special housing problems of foreign students, married students, and physically handicapped has been continued.

Counseling Veterans—While the veteran population has decreased markedly during this biennium, the work load of the Bureau of Veterans' Affairs has become more exacting because of the increasing complexity of regulations and requirements of the Veterans Administration. The functions of the Bureau

have remained essentially the same as during the previous biennium: (1) orientation of new veterans at the same time they are admitted to college; (2) continued counseling and assistance when the veteran needs it; (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 1950-52 biennium, the Bureau held 24,925 interviews. A total of 46,235 book and supply vouchers were approved and issued. During this same biennium, there has been a significant increase in the number of interviews devoted to interpreting the Veterans Administration's regulations.

University Veterans' Counseling Center—This Center continued to provide expert counseling to all veterans referred from the Veterans Administration. The case load has gradually dropped until at the end of June, 1952, 27 cases were being processed. The passage of PL 550 giving assistance to veterans of the Korean campaign indicates that the case load will be increasing during the next year.—EDMUND G. WILLIAMSON, *dean*.

UNIVERSITY OF MINNESOTA LIBRARY

On June 30, 1952 the total number of accessioned volumes in the Twin Cities units of the University Library was 1,615,682—an increase of 87,394 volumes over the June 30, 1950 figure.

Owing to the greatly increased cost of scholarly books and periodicals, and the added demands which new and growing University programs are placing on the Library's book fund, it is only with difficulty that the Library has been able to maintain its objective of acquiring even the basic publications being produced annually in the many fields of study offered at the University.

Only an increasingly selective book buying policy, plus assistance in the form of special grants to meet specific needs, have made it possible to keep up the standards of the collections, especially from 1950 to 1952.

The sharp reduction in University enrollment, to which the Library's book fund is directly tied by formula, has intensified the shrinking of the fund beyond the already serious effects of inflation on its purchasing power.

Since the amount of money needed annually for the adequate and orderly development of our collections usually bears little relationship to the number of students enrolled in the University, a re-examination of the Library's budgeted book fund may be in order, with a view toward assuring a more stable provision for the needs of the Library without depending upon such a sharply fluctuating base as student fees.

Notable acquisitions during the biennium included selective Library purchases and gifts from Regent James Ford Bell in the field of early exploration and travel, substantial donations from Dr. Irvin Kerlan for the Kerlan Collection of illustrated children's literature, a notable and carefully selected collection on fine printing, featuring the work of F. W. Goudy and Bruce Rogers, given by Frank Leslie, and the Burch collection of rare books in the field of ophthalmology, the gifts of Doctors Frank and Edward Burch of St. Paul.

Extensive development in the Library's holdings of publications on microfilm and microcard, as well as increased use of these resources and improved facilities for servicing them, also occurred during the biennium. The Library's collection of microfilm, totaling less than 2,000 reels 5 years ago, now exceeds 10,000 reels including many periodical and newspaper runs. Like most large libraries, the University of Minnesota Library has found in microfilm and microcard files the only economically feasible solution to the problem of providing back files of many bulky and rapidly growing serial publications in the face of increasing costs for the acquisition, binding, storage, and handling of the original printed editions.

During the biennium the Midwest Inter-Library Center, with its building completed, became a going concern, and the University Library, along with 14 other mid-western institutions, began to benefit from its membership in this corporation by contributing to the joint development of stronger central collections of little used publications and by participating actively in the

selection of cooperatively acquired publications too costly and too infrequently needed by individual members to justify their independent purchase.

The statistics of recorded use of Library materials during the biennium reveal that in spite of the sharp enrollment decline, the per student use of Library materials continued at a high level. During the past four years, when the University's total enrollment decreased approximately 33 per cent, the recorded use of Library materials declined less than 25 per cent. During 1951-52, 723,816 loans were recorded by the Circulation Department or 39 loans per student, based on the peak fall quarter registration for the year. In addition, the General Library's Reference Department reported 225,162 recorded loans of periodicals, documents, and other reference materials. This continued heavy use of the Library's resources, in the face of the enrollment decline, and the increase of open shelf reading areas where a large portion of book use is unrecorded, is explained at least partly by the relative increase in upperclass and graduate student work, requiring more independent use of Library materials throughout the University. Notable changes during the biennium designed to make library materials more easily available and more comfortably usable included the reorganization of circulation service and records for speedier book delivery, the granting of stack access to all "B-average" students, and the provision of an up-to-date collection of books available for home loans in the Arthur Upson room.

Physical plant improvements of notable benefit to Library patrons included the installation of improved lighting in all of the major reading rooms in the General Library, a completion of new map and microfilm and storage stack facilities in the basement of Johnston Hall, and the opening of a "Freshman-Sophomore Library" on the ground floor of the same building. The latter installation represents a modest beginning toward providing new students, unfamiliar with the intricacies of a large University Library, with convenient access to a smaller book collection designed to meet their first library needs easily and to provide an introduction to the larger resources of the General Library which they will need to use increasingly as upper classmen and graduate students.

The close of the biennium also saw the completion of the new Agriculture Library for the St. Paul campus, where similar open shelf collections will provide all students with direct, personal access to books and periodicals.

Major changes in key personnel, as well as continued turnover throughout the Library staff in general, necessitated adjustments which interrupted the continuity of administration during the biennium. After eight years of outstanding service E. W. McDiarmid gave up his post as University librarian to become dean of the College of Science, Literature, and the Arts in July, 1951, and his assistant, E. B. Stanford, was appointed acting University librarian, and a year later was made director of libraries. Later that year James M. Kingsley, Jr., was named head of the Library's Acquisitions Department, after serving successfully as librarian of the Biological-Medical Library, where he was replaced by Mrs. Vera M. Clausen, of the Reference Department staff. In April, 1952, Stanley McElderry, circulation librarian, resigned. His place was then filled by Norma Hovden, head of the Periodical Room. Mrs. Evelyn Furber, head of the Library's Serials Division, then accepted the Periodical Room position, and Mrs. Margaret Harvey, of the Reference Department, became head of the Serials Division. This series of staff changes in key positions thus provided opportunities for several of the more promising young women on the Library staff for well earned recognition and promotion.

Among the career librarians to leave the staff of the Library permanently during the biennium were Gertrude Hartman of the Catalog Department, through illness; Elizabeth Pehousek of the Biological-Medical Library, Harriet Sewall of the Agriculture Library, and Gertrude Veblen of the Engineering Library, through retirement; and Mary Spalding, of the Periodical Room, through an illness which led to her decease while still in the service of the Library. The Library owes much to these and other staff members not mentioned who have left the staff after years of unselfish service to the University.

The problems which seem most in need of early consideration by the Library and the administration during the forthcoming biennium include the provision of adequate administrative help to the director; a re-examination of

the Library School and its relation to the Library, with a view toward strengthening its program and its faculty and providing it with a full-time director; the development of a more stable and adequate book fund less rigidly governed by enrollment changes; the development of quarters for the Biological-Medical Library more conveniently accessible to the departments served; and the provision of warehouse or storage space for bulky but infrequently used collections which need no longer occupy valuable Library stack space yet should be readily available in the Twin Cities. Problems of fragmentation and duplication involved in the establishment and growth of departmental library collections, a re-examination of space used in the General Library in relation to needs for more open shelf service, more individual study facilities, and more adequate arrangements for handling rare books and special collections are also topics which still face the Library as problems requiring consideration and action.—EDWARD B. STANFORD, *acting University librarian*.

OFFICE OF ADMISSIONS AND RECORDS

Policy and Procedure—During the biennium, the Office of Admissions and Records continued its modification of policies and procedures that had been in effect during a period of great student attendance. The intent was to provide a maximum of personal service to students by the use of procedures that could be quickly expanded in the event of sudden and heavy enrollment.

Service Credits—Anticipating the return of Korean veterans, the Office reconsidered the policies under which veterans had been granted credit for academic training in service. It was proposed that University departments examine individual records of such training and recommend the amount of credit to be granted in specific subject areas. Methods and examinations developed might be applicable to all students, veterans and nonveterans alike.

University Relations—The role of the University in its relationships with the high schools was studied with care and well-defined. A more direct University program and increased participation in cooperative activities resulted.

Personalization of Correspondence—The Admissions Office had found it necessary during 1946 and 1947 to use many standardized correspondence forms. It was possible to replace almost two-thirds of these with letters written on newly-acquired automatic typewriters. Many of the older forms were also revised or re-written.

Codification of Data—The Room Scheduling Office continued to consolidate the information it had gathered since its beginning in 1946. International Business Machines and methods were used to gather new data on classrooms and to keep systematic records of all space assignments. Departments began to report regularly on space use.

A procedure was also developed under which it was possible to determine the extent of interdepartment and intercollege teaching relationships throughout the University.

Selective Service—In the Recorder's Office, a new unit was put into operation to serve students in their contacts with Selective Service. The staff worked in close liaison with the student and his local draft board to provide information on academic standing at the student's request.

Campus Planning—Research was done during this period for the Duluth Branch Campus Plan Committee. Studies of enrollment and instructional trends, campus facilities, and classroom utilization and needs were made in close cooperation with the staff of the Duluth Branch. A report was presented to the Duluth Community and to the University Administration in 1951.

Admission's Office—A new Admissions and Records office on the St. Paul Campus was designed during the biennium to replace the quarters now in use. The office will be located in the remodeled space formerly occupied by the Library. Work is expected to be completed by 1953.

Annual Enrollment—The University served 68,354 different persons in 1950-51 and 65,333 in 1951-52 (Table V). Of these, 30,848 during 1950-51 and

26,085 during 1951-52 were collegiate students enrolled during the academic year or in Summer Session (Table I). The mean annual enrollment for the 1950-52 biennium was 28,466 collegiate students. This is a decrease of 7,088 from the annual mean of 1948-50. The decline in enrollment during this biennium is chiefly due to completion of World War II student-veterans but is in part attributable to a reduced birth rate in the early part of the 1930's. Students now coming to college were born in that period.

Enrollment by Colleges—Enrollment, exclusive of Summer Session, declined generally in all colleges of the University except the professional schools where it remained relatively constant.

Men and Women—In the years from 1948-49 to 1951-52, the absolute number of women in the collegiate student body declined from 6,998 to 6,187, but the percentage of the student total grew from 23 to 30 per cent.

Student Veterans—Veterans receiving educational benefits (Table IA) constituted 26 per cent of the collegiate student body during 1950-51 and 16 per cent during 1951-52. These proportions differ significantly from those of the last biennium when veterans constituted 52 per cent of the collegiate student body in 1948-49 and 41 per cent during 1949-50.

Nonveteran Students—The mean number of students other than veterans under subsidy increased during the biennium from 15,563 during the years 1948-50 to 17,823 during the years 1950-52. This continues a trend.

New Matriculants—A slight rise in the number of advanced standing admissions was offset during the biennium by a decline in new freshman admissions. There were 3,994 freshmen and 1,734 new advanced standing admissions in 1950-51 and 3,393 freshmen, 1,884 advanced standing admissions in 1951-52. Total new matriculants dropped from 5,728 to 5,277. (Tables VIII A, VIII B, IX A, IX B, Fig. 1.)

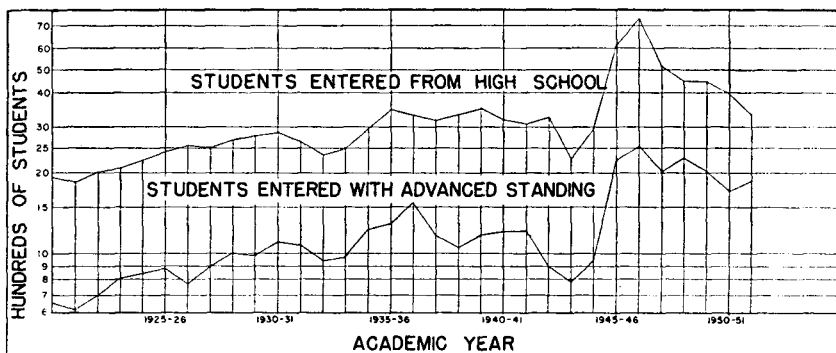


Figure 1

The year after World War II in which the greatest number of new students matriculated was 1946-47 when there were 7,478 new freshmen and 2,529 new advanced-standing students.

State Enrollment—Approximately 92 per cent of the students coming directly from high schools during each year of the biennium were from Minnesota high schools. Of the freshmen on whom information was obtainable, 44 per cent in 1950-51 and 41 per cent in 1951-52 were from public high schools in Minneapolis and St. Paul combined. Minneapolis accounted for 32 per cent of the total in 1950-51 and 30 per cent in 1951-52.

Of the new advanced-standing students at the University, approximately 55 per cent were admitted from educational institutions in Minnesota. This was true each year of the biennium.

Out-of-State Enrollment—(Tables X A and X B)—The over-all nonresident enrollment, including students in the Graduate School, was 14 per cent of the total in 1950-51 and 16 per cent of the total in 1951-52. In the last biennium, it was 12 per cent the first year, 13 per cent the second. Graduate School and the

School of Public Health had the greatest percentages of nonresidents. The student body in the Graduate School was 46 per cent nonresident in 1950-51, and 49 per cent in 1951-52. The School of Public Health had 59 per cent non-residents in 1950-51 and 56 per cent in 1951-52.

The number of foreign students increased both years of the biennium. There were 459 enrolled in 1950-51 and 512 in 1951-52.

Conferred Degrees—The University granted 6,387 degrees during 1950-51 and 5,246 during 1951-52 (Table VII A and Fig 2). The peak in numbers of degrees came in 1949-50 when 7,082 degrees were awarded. The rapid decline in number of degrees granted reflects the loss of the large veteran component in the student body.

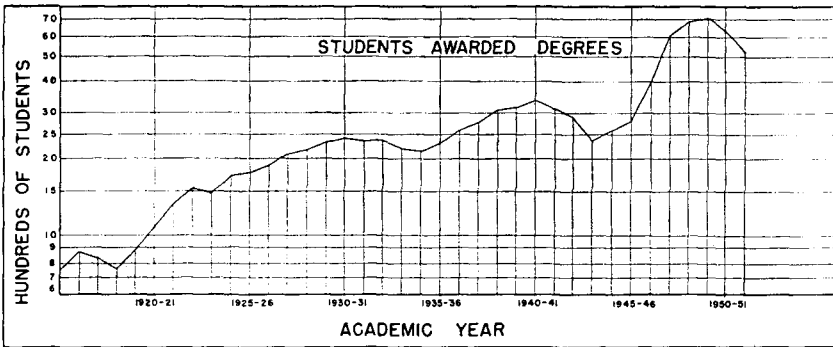


Figure 2

Summer Session—(Table I)—There were 12,269 individuals enrolled during one or both terms of the 1950 Summer Session. The number decreased in 1951 to 10,740. For comparison, the 1942 prewar record was 7,272.

Extension, Correspondence Study, Others—The evening extension class enrollment (Table IV A) remained relatively constant both years of this biennium. There were 11,220 students enrolled during 1950-51 and 11,202 enrolled during 1951-52. This is a decline from a record enrollment of 12,458 established during 1948-49.

Correspondence study enrollment declined during 1950-51 to 4,500 students. This figure is below that of either year of the last biennium. During 1951-52, however, it rose to 5,635. This is approximately 200 students above the highest enrollment of the last biennium.

Enrollment in the Center for Continuation Study (Table IV B) was 6,697

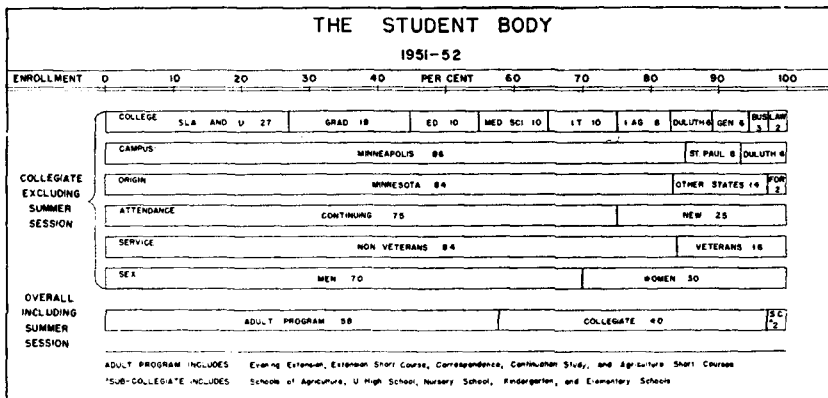


Figure 3

in 1950-51 and 7,144 in 1951-52. This is close, in total, to the record-breaking enrollment of last biennium which was 6,292 in 1948-49 and 7,723 in 1949-50.

The sub-collegiate enrollment (Table III and Fig. 3, Schools) was 1,609 in 1950-51 and 1,582 in 1951-52. The totals are comparable to those of the two previous bienniums.

Total enrollment in short courses conducted by the schools of agriculture at St. Paul, Crookston, Morris, and Grand Rapids (Table III) greatly increased over the most recent biennium. The mean was 16,042 as compared with a mean of 12,256 for the years 1948-50.

Charts—Attention is called to the accompanying charts which illustrate graphically some important enrollment statistics. Figure 3 is a new chart which attempts to summarize significant data with respect to collegiate enrollment.

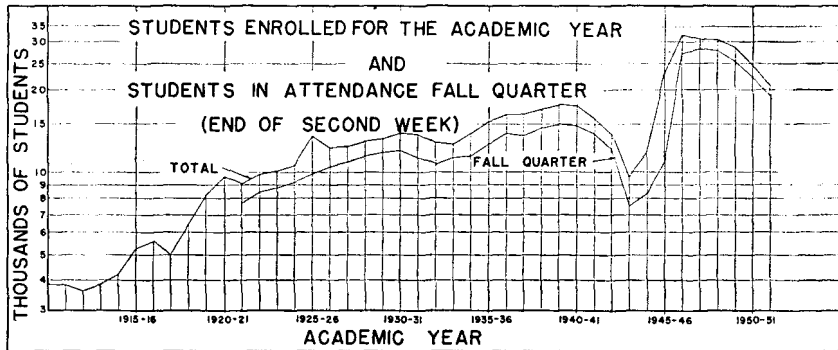


Figure 4

Figures 1 and 2 are charts of long standing which give numbers of new matriculants and degrees granted. Figure 4 draws together comparative data on enrollment and attendance. Tables follow.—R. E. SUMMERS, dean.

TABLE I. COLLEGIATE ENROLLMENT BY COLLEGES AND SCHOOLS, 1950-52

College or School	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
General College								
Second year	550	139	689	404	201	605		84
First year	648	245	893	460	135	595		298
Adult specials	9	7	16	25	2	27		11
Totals	1,207	391	1,598	889	338	1,227		371
University College								
Seniors	39	12	51	20	13	33		18
Juniors	16	6	22	15	9	24		2
Sophomores	7	2	9		3	3		6
Freshmen								
Adult specials	3	1	4	5	1	6		2
Totals	65	21	86	40	26	66		20
Science, Literature, and the Arts								
Seniors	887	328	1,215	716	333	1,049		166
Juniors	684	328	1,012	569	314	883		129
Sophomores	1,436	710	2,146	1,071	652	1,723		423
Freshmen	1,121	736	1,857	965	680	1,645		212
Adult specials	282	163	445	233	182	415		30
Totals	4,410	2,265	6,675	3,554	2,161	5,715		960
Institute of Technology								
Seniors	1,007	16	1,023	747	2	749		274
Juniors	513	9	522	418	3	421		101
Sophomores	447	8	455	445	1	446		9
Freshmen	530	1	531	467	3	470		61
Adult specials	60	1	61	46		46		13
Totals	2,557	35	2,592	2,125	9	2,134		458

THE PRESIDENT'S REPORT

TABLE I.—Continued

College or School	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Agriculture, Forestry, and Home Economics								
Seniors	294	131	425	198	174	372		53
Juniors	205	108	313	203	126	329	16	
Sophomores	367	208	575	235	163	398		177
Freshmen	242	147	389	185	128	313		76
Adult specials	88	22	110	56	25	81		29
Totals	1,196	616	1,812	877	616	1,493		319
Law								
Seniors	98	1	99	91	5	96		3
Juniors	114	5	119	72	4	76		43
Sophomores	96	5	101	76		76		25
Freshmen	162	7	169	141	2	143		26
Adult specials	4		4	4		4		
Totals	474	18	492	384	11	395		97
Medical School								
Interns	109	5	114	105	7	112		2
Seniors	106	9	115	112	5	117	2	
Juniors	113	5	118	114	9	123	5	
Sophomores	116	10	126	127	9	136	10	
Freshmen	120	10	130	124	6	130		
Adult specials	3		3					3
Totals	567	39	606	582	36	618	12	
Medical and X-ray Technology								
Seniors	5	42	47	4	47	51	4	
Juniors	6	44	50	4	29	33		17
Adult specials		5	5		2	2		3
Totals	11	91	102	8	78	86		16
Occupational Therapy								
Seniors	1	28	29	3	27	30	1	
Juniors	4	19	23	1	19	20		3
Adult specials	1	1	2	1		1		1
Totals	6	48	54	5	46	51		3
Physical Therapy								
Seniors	5	4	9	9	7	16	7	
Juniors	10	7	17	6	16	22	5	
Adult specials	1		1		1	1		
Totals	16	11	27	15	24	39	12	
Public Health								
Seniors	9	71	80	69	103	172	92	
Juniors	2	44	46	1	30	31		15
Sophomores		34	34		13	13		21
Adult specials	88	77	165	28	42	70		95
Totals	99	226	325	98	188	286		39
Nursing								
Third year	1	27	28	2	74	76	48	
Second year	3	43	46	2	79	81	35	
First year	2	88	90	3	49	52		38
Affiliates		110	110		79	79		31
Adult specials		3	3		2	2		1
Totals	6	271	277	7	283	290	13	
Dentistry								
Seniors	82		82	85	1	86	4	
Juniors	85	1	86	87		87	1	
Sophomores	79	2	81	82	5	87	6	
Freshmen	95	4	99	96	1	97		2
Adult specials	1	1	2	1		1		1
Totals	342	8	350	351	7	358	8	
Dental Hygiene								
Second year	1	33	34		36	36	2	
First year	1	54	55		48	48		7
Adult specials		1	1					1
Totals	2	88	90		84	84		6

TABLE I.—Continued

College or School	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Pharmacy								
Seniors	104	6	110	91	5	96		14
Juniors	75	3	78	63	6	69		9
Sophomores	82	4	86	74	7	81		5
Freshmen	136	11	147	70	9	79		68
Adult specials	1	1	2	2		2		
Totals	398	25	423	300	27	327		96
Education								
Seniors	486	533	1,019	283	497	790		229
Juniors	279	422	701	157	367	524		177
Sophomores	111	236	347	73	187	260		87
Freshmen	95	174	269	61	135	196		73
Adult specials	247	186	433	146	154	300		133
Totals	1,218	1,551	2,769	730	1,340	2,070		699
Business Administration								
Seniors	503	18	521	346	16	362		159
Juniors	433	23	456	307	20	327		129
Adult specials	59	6	65	34	2	36		29
Totals	995	47	1,042	687	38	725		317
Graduate (including Mayo Foundation)	3,713	653	4,366	3,226	551	3,777		589
Veterinary Medicine								
Seniors	23	2	25	44	2	46	21	
Juniors	48	2	50	49		49		1
Sophomores	47		47	48		48	1	
Freshmen	49		49	48		48		1
Adult specials	2		2	1		1		1
Totals	169	4	173	190	2	192	19	
Duluth Branch								
Seniors	340	98	438	219	70	289		149
Juniors	283	71	354	172	77	249		105
Sophomores	252	135	387	188	92	280		107
Freshmen	313	227	540	286	180	466		74
Adult specials	64	45	109	65	49	114	5	
Totals	1,252	576	1,828	930	468	1,398		430
Totals academic year	18,703	6,984	25,687	14,998	6,333	21,331		4,356
Less duplicates	717	304	1,021	350	146	496		525
Net totals academic year	17,986	6,680	24,666	14,648	6,187	20,835		3,831
Summer Session								
First term	7,173	3,195	10,368	6,399	2,942	9,341		1,027
Second term	5,288	1,939	7,227	4,229	1,535	5,764		1,463
Totals	12,461	5,134	17,595	10,628	4,477	15,105		2,490
Less duplicates	4,559	1,273	5,832	3,686	1,168	4,854		978
Net totals Summer Session	7,902	3,861	11,763	6,942	3,309	10,251		1,512
Mayo Foundation (graduates)	495	11	506	474	15	489		17
Net totals Summer Session (including Mayo Foundation)	8,397	3,872	12,269	7,416	3,324	10,740		1,529
Grand totals, collegiate	26,383	10,552	36,935	22,064	9,511	31,575		5,360
Less duplicates	4,938	1,149	6,087	4,237	1,253	5,490		597
Net grand totals, collegiate	21,445	9,403	30,848	17,827	8,258	26,085		4,763

TABLE IA. VETERAN ENROLLMENT BY COLLEGES AND SCHOOLS, 1950-52

College or School	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
General College								
Second year	135	3	138	69	5	74		64
First year	87	5	92	21		21		71
Adult specials	3		3	9		9	6	
Totals	225	8	233	99	5	104		129

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TABLE IA.—Continued

College or School	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
University College								
Seniors	16	2	18	5	1	6		12
Juniors	5		5	4	1	5		
Sophomores	3		3					3
Freshmen								
Adult specials	1		1	2		2	1	
Totals	25	2	27	11	2	13		14
Science, Literature, and the Arts								
Seniors	361	10	371	185	8	193		178
Juniors	213	6	219	69	3	72		147
Sophomores	265	8	273	121	9	130		143
Freshmen	98	11	109	25	2	27		82
Adult specials	118	11	129	70	8	78		51
Totals	1,055	46	1,101	470	30	500		601
Institute of Technology								
Seniors	426	9	435	137		137		298
Juniors	183	1	184	78		78		106
Sophomores	105	1	106	56		56		50
Freshmen	67		67	23		23		44
Adult specials	31		31	15		15		16
Totals	812	11	823	309		309		514
Agriculture, Forestry, and Home Economics								
Seniors	132	6	138	55	1	56		82
Juniors	88	2	90	37	1	38		52
Sophomores	114	3	117	49	1	50		67
Freshmen	40	1	41	7	2	9		32
Adult specials	47	5	52	17	3	20		32
Totals	421	17	438	165	8	173		265
Law								
Seniors	42		42	16	1	17		25
Juniors	48	1	49	17		17		32
Sophomores	40		40	7		7		33
Freshmen	49		49	19		19		30
Adult specials	1		1					1
Totals	180	1	181	59	1	60		121
Medical School								
Interns	3		3	47	1	48	45	
Seniors	50	1	51	22		22		29
Juniors	61		61	26		26		35
Sophomores	57	1	58	32		32		26
Freshmen	41		41	23		23		18
Adult specials	1		1					1
Totals	213	2	215	150	1	151		64
Medical and X-ray Technology								
Seniors	3	1	4	2		2		2
Juniors	1		1	1		1		
Adult specials								
Totals	4	1	5	3		3		2
Occupational Therapy								
Seniors	1	3	4	1		1		3
Juniors	2		2	2		2		
Adult specials	1	1	2					2
Totals	4	4	8	3		3		5
Physical Therapy								
Seniors	2	1	3	3		3		
Juniors	6		6	4	2	6		
Adult specials	1		1					1
Totals	9	1	10	7	2	9		1
Public Health								
Seniors	5	14	19	24	23	47	28	
Juniors	1	16	17		1	1		16
Sophomores		9	9		1	1		8
Adult specials	31	13	44	6	15	21		23
Totals	37	52	89	30	40	70		19

TABLE IA.—Continued

College or School	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
School of Nursing								
Third year	1		1	1	1			
Second year				1	1		1	
First year	1	4	5	1	1			4
Adult specials								
Totals	2	4	6	2	1	3		3
Dentistry								
Seniors	54		54	17	1	18		36
Juniors	55		55	34		34		21
Sophomores	48	1	49	20		20		29
Freshmen	43		43	21		21		22
Adult specials								
Totals	200	1	201	92	1	93		108
Dental Hygiene								
Second year								
First year								
Totals								
Pharmacy								
Seniors	54		54	26		26		28
Juniors	31		31	11		11		20
Sophomores	21		21	14		14		7
Freshmen	17		17	3		3		14
Adult specials	1		1					1
Totals	124		124	54		54		70
Education								
Seniors	228	35	263	93	28	121		142
Juniors	118	21	139	36	5	41		98
Sophomores	36	11	47	10	1	11		36
Freshmen	9	2	11	1	1	2		9
Adult specials	110	10	120	53	3	56		64
Totals	501	79	580	193	38	231		349
Business Administration								
Seniors	199		199	100	1	101		98
Juniors	162	2	164	72	2	74		90
Adult specials	27		27	9		9		18
Totals	388	2	390	181	3	184		206
Graduate (including Mayo Foundation)	1,690	48	1,738	1,134	31	1,165		573
Veterinary Medicine								
Seniors	14	1	15	14		14		1
Juniors	29	1	30	20		20		10
Sophomores	28		28	21		21		7
Freshmen	28		28	16		16		12
Totals	99	2	101	71		71		30
Duluth Branch								
Seniors	188	5	193	92	2	94		99
Juniors	126		126	60	3	63		63
Sophomores	70	3	73	22		22		51
Freshmen	37	1	38	13		13		25
Adult specials	33	3	36	18	1	19		17
Totals	454	12	466	205	6	211		255
Totals academic year	6,443	293	6,736	3,238	169	3,407		3,329
Less duplicates	228	13	241	48		48		193
Net totals academic year	6,215	280	6,495	3,190	169	3,359		3,136
Summer Session								
First term	4,338	198	4,536	3,153	218	3,371		1,165
Second term	3,427	143	3,570	2,141	142	2,283		1,287
Totals	7,765	341	8,106	5,294	360	5,654		2,452
Less duplicates	2,724	118	2,842	1,969	132	2,101		741
Net totals, Summer Session	5,041	223	5,264	3,325	228	3,553		1,711
Mayo Foundation (graduates)	366	1	367	344		344		23
Net totals, Summer Session (Including Mayo Foundation)	5,407	224	5,631	3,669	228	3,897		1,734
Grand totals collegiate	11,622	504	12,126	6,859	397	7,256		4,870
Less duplicates	2,477	99	2,576	1,661	105	1,766		819
Net grand totals, collegiate veterans	9,145	405	9,550	5,198	292	5,490		4,060

TABLE IIA. COLLEGIATE ENROLLMENT BY QUARTERS, 1950-51

College or School	First Term, Summer Session, 1950			Second Term, Summer Session, 1950			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	140	37	177	106	26	132	1,087	351	1,438	889	277	1,166	713	262	975	1,283	422	1,705
University College	23	8	31	19	6	25	47	14	61	51	14	65	46	15	61	65	23	88
Science, Literature, and the Arts	1,345	762	2,107	1,079	454	1,533	3,939	2,065	6,004	3,415	1,850	5,265	3,071	1,715	4,786	5,253	2,911	8,164
Institute of Technology	942	14	956	730	9	739	2,423	18	2,441	2,134	17	2,151	1,891	15	1,906	2,636	40	2,676
Agriculture, Forestry, and Home Economics	277	135	412	196	59	255	1,127	559	1,686	1,022	508	1,530	827	470	1,297	1,322	697	2,019
Law	152	3	155	149	3	152	485	16	501	411	12	423	377	13	390	524	21	545
Medicine and Interns	423	26	449	100	5	105	551	34	585	550	27	577	543	34	577	634	40	674
Medical Technologists (including X-ray)	2	17	19	1	10	11	7	88	95	4	75	79	4	71	75	11	91	102
Nursing and affiliates	3	146	149	3	145	148	2	188	190	3	200	203	4	186	190	6	354	360
Occupational Therapists	4	22	26	1	19	20	4	50	54	4	48	52	4	42	46	6	48	54
Physical Therapists	1	1	2	.....	1	1	15	11	26	15	11	26	16	11	27	16	11	27
Public Health	41	168	209	37	109	146	95	184	279	84	150	234	81	161	242	104	335	439
Dentistry	55	.....	55	22	.....	22	340	6	346	334	5	339	333	6	339	342	8	350
Dental Hygiene .....	.....	11	11	.....	4	4	.....	91	91	.....	81	81	2	72	74	2	92	94
Pharmacy	48	.....	48	56	2	58	390	25	415	356	23	379	328	22	350	406	26	432
Education	938	1,079	2,017	507	633	1,140	1,041	1,309	2,350	939	1,238	2,177	875	1,226	2,101	1,867	2,688	4,555
Business Administration	306	16	322	251	8	259	838	39	877	756	33	789	720	28	748	1,101	61	1,162
Veterinary Medicine	2	.....	2	4	.....	4	164	4	168	167	4	171	167	2	169	169	4	173
Graduate (including Mayo Foun- dation)	2,525	472	2,997	2,153	260	2,413	3,196	536	3,732	2,995	477	3,472	2,957	483	3,440	5,064	1,050	6,114
Duluth Branch	441	289	730	369	197	566	1,165	513	1,678	1,054	497	1,551	852	424	1,276	1,568	895	2,463
Totals	7,668	3,206	10,874	5,783	1,950	7,733	16,916	6,101	23,017	15,183	5,547	20,730	13,811	5,258	19,069	22,379	9,817	32,196
Less duplicates	120	88	208	36	8	44	274	106	380	248	102	350	246	102	348	934	414	1,348
Net totals	7,548	3,118	10,666	5,747	1,942	7,689	16,642	5,995	22,637	14,935	5,445	20,380	13,565	5,156	18,721	21,445	9,403	30,848

* This represents a net count of individuals with duplicates deducted.

TABLE IIB. COLLEGIATE ENROLLMENT BY QUARTERS, 1951-52

College or School	First Term, Summer Session, 1951			Second Term, Summer Session, 1951			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	107	37	144	74	18	92	783	292	1,075	740	265	1,005	662	248	910	941	353	1,294
University College	17	11	28	15	8	23	31	18	49	32	15	47	31	18	49	43	31	74
Science, Literature, and the Arts	1,207	664	1,871	883	396	1,279	3,279	1,989	5,268	3,111	1,847	4,958	2,897	1,708	4,605	4,236	2,675	6,911
Institute of Technology	543	6	549	359	7	366	1,942	13	1,955	1,815	9	1,824	1,734	5	1,739	2,266	16	2,282
Agriculture, Forestry, and Home Economics	225	144	369	109	41	150	793	490	1,283	788	466	1,254	685	445	1,130	986	700	1,686
Law	69	2	71	64	2	66	379	10	389	366	11	377	345	11	356	392	12	404
Medicine and Interns	450	29	479	110	9	119	574	36	610	575	35	610	576	33	609	585	36	621
Medical Technologists (including X-ray)	2	5	7	2	11	13	7	68	75	5	60	65	5	60	65	8	78	86
Nursing and affiliates	4	181	185	4	176	180	6	229	235	5	240	245	3	210	213	8	357	365
Occupational Therapists	4	25	29	4	19	23	5	49	54	5	41	46	2	36	38	5	47	52
Physical Therapists	1		1	5	10	15	15	24	39	14	23	37	14	23	37	20	32	52
Public Health	39	142	181	39	102	141	92	158	250	89	139	228	91	129	220	102	249	351
Dentistry	52		52	32		32	349	7	356	339	6	345	333	6	339	353	7	360
Dental Hygienists		7	7		3	3	2	92	94		72	72		69	69		87	87
Pharmacy	61	4	65	50	2	52	316	25	341	287	24	311	264	20	284	314	27	341
Education	794	918	1,712	482	408	890	699	1,243	1,942	647	1,160	1,807	613	1,137	1,750	1,406	2,098	3,504
Business Administration	221	14	235	171	14	185	681	34	715	641	30	671	681	30	711	756	48	804
Veterinary Medicine	5		5	3		3	188	2	190	191	2	193	191	2	193	190	2	192
Graduate (including Mayo Foun- dation)	2,724	504	3,228	2,074	233	2,307	2,797	449	3,246	2,642	431	3,073	2,557	419	2,976	4,556	940	5,496
Duluth Branch	348	264	612	223	91	314	840	422	1,262	802	419	1,221	737	334	1,071	1,166	692	1,858
Totals	6,873	2,957	9,830	4,703	1,550	6,253	13,778	5,650	19,428	13,094	5,295	18,389	12,421	4,943	17,364	18,333	8,487	26,820
Less duplicates	76	50	126	32	18	50	220	90	310	210	76	286	266	93	359	506	229	735
Net totals	6,797	2,907	9,704	4,671	1,532	6,203	13,558	5,560	19,118	12,884	5,219	18,103	12,155	4,850	17,005	17,827	8,258	26,085

* This represents a net count of individuals with duplicates deducted.

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TABLE III. SUB-COLLEGIATE ENROLLMENT, 1950-52

School or Course	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
School of Agriculture (St. Paul) (three-year course)								
Seniors	59	17	76	46	12	58	.....	18
Juniors	123	15	138	90	26	116	.....	22
Freshmen	9	2	11	5	2	7	.....	4
Unclassed	32	3	35	18	13	31	.....	4
Totals	223	37	260	159	53	212	.....	48
Intermediate	2	1	3	.....	2	2	.....	1
Total school registration	225	38	263	159	55	214	.....	49
Northwest School and Station (Crookston) (three-year course)								
Seniors	64	30	94	86	31	117	23	.....
Juniors	78	34	112	76	13	89	.....	23
Freshmen	57	16	73	94	17	111	38	.....
Unclassed	1	.....	1	3	.....	3	.....	2
Totals	200	80	280	259	61	320	40	.....
Intermediate	54	24	78	47	22	69	.....	9
Total school registration	254	104	358	306	83	389	31	.....
West Central School and Station (Morris) (three-year course)								
Seniors	72	22	94	63	19	82	.....	12
Juniors	65	22	87	71	22	93	6	.....
Freshmen	75	18	93	69	23	92	.....	1
Unclassed	10	7	17	5	5	10	.....	7
Totals	222	69	291	208	69	277	.....	14
Intermediate	40	25	65	38	21	59	.....	6
Total school registration	262	94	356	246	90	336	.....	20
North Central School and Station (Grand Rapids) (three-year course)								
Seniors	25	.....	25	15	.....	15	.....	10
Juniors	12	.....	12	19	.....	19	.....	7
Freshmen	14	.....	14	23	.....	23	.....	9
Unclassed	.....	.....	.....	5	.....	5	.....	5
Totals	51	.....	51	62	.....	62	.....	11
Intermediate	18	.....	18	9	.....	9	.....	9
Total school registration	69	.....	69	71	.....	71	.....	2
University High School	201	182	383	198	174	372	.....	11
Nursery School and Kindergarten	43	33	76	38	42	80	.....	4
University Elementary School	48	56	104	60	60	120	.....	16
Total	91	89	180	98	102	200	.....	20
Net totals schools	1,102	507	1,609	1,078	504	1,582	.....	27
Short Courses								
School of Agriculture (St. Paul)								
Aircraft spraying and dusting	80	.....	80	.....	.....	.....	.....	80
Alumni institute	200	100	300	.....	.....	.....	.....	300
American country life association	110	54	164	.....	.....	.....	.....	164
American society of farm managers and rural appraisers	111	58	169	111	51	162	.....	7
Animal nutrition	172	.....	172	212	1	213	41	.....
Armour livestock tour	17	.....	17	.....	.....	.....	.....	17
Artificial insemination	.....	.....	.....	48	.....	48	48	.....
Beekeepers' short course	38	12	50	42	3	45	.....	5
Berry growers	69	7	76	76	3	79	.....	3
Boys' state	244	.....	244	262	.....	262	.....	18
Butter manufacturers	.....	.....	.....	9	.....	9	.....	9
Canners and fieldmen	131	.....	131	152	.....	152	.....	21
Career days home economics workshop	.....	.....	.....	.....	164	164	164	.....

TABLE III—Continued

School or Course	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Conference for teachers of adult homemaking classes		81	81					81
Dairy day	750	50	800					800
Dairy herd improvement	99		99	71	2	73		26
Dairy herdsmen				23		23		23
Dairy products	502		502	523	6	529		27
E.C.A. group of young farmers for Europe				25		25		25
Editors' short course	75	16	91	93	16	109		18
Electrical wiring				78		78		78
Electricity on the farm				25		25		25
Fair management	67	14	81	74	9	83		2
Farm and home week	1,718	675	2,393	1,374	632	2,006		387
Farm bureau (womens')		285	285		267	267		18
Farm drainage	88		88					88
Farm home administration	13	9	22					22
Farm income tax	470	47	517	458	48	506		11
Farmstead rural electrification	74		74					74
Flock selecting and pullorum testing agents	198	9	207	153	10	163		44
4-H Club week	406	607	1,013	418	590	1,008		5
4-H tractor maintenance				69		69		69
Frozen food locker operators				40	16	56		56
Fundamentals of dairy manufacturing				15		15		15
Future farmers of America	1,612		1,612	1,592		1,592		20
Hardwood lumber grading				21		21		21
High school girls home economics workshop		200	200					200
Horticulture	157	398	555	210	426	636		81
Liquefied petroleum gas service school	135		135	149		149		14
Lumbermen's four-week short course	45		45	51		51		6
Milk and ice cream manufacturers				11		11		11
Minnesota state fire school				183		183		183
Newcomers section of Faculty Women's Club					32	32		32
Parents' day	83	89	172	124	126	250		78
Poultry breeders	38	8	46	30	5	35		11
Prevention of loss in marketing fruits and vegetables				81		81		81
Rosegrowers' day				112	313	425		425
Rural state youth	103	75	178	93	50	143		35
Soils and fertilizer	233		233	314		314		81
Soybean Institute	95	28	123	46		46		77
State conference for home economics teachers					363	363		363
State dairy food inspectors				32		32		32
Swinefeeders' day	1,200		1,200	1,100		1,100		100
Teaching vocational agriculture	12		12	13		13		1
Tractor maintenance	61		61					61
Veterinarians' short course	200	3	203	214	1	215		12
Vocational agriculture teachers' short course	618		618	528		528		90
Vocational agriculture short course and Minnesota F.F.A. short course	1,614		1,614	172		172		1,442
Weed and seed inspectors	132		132	96		96		36
Workshop in agricultural education supervision	14		14					14
Workshop in grain marketing	25		25					25
Young citizens' league				124	257	381		381
Totals	12,009	2,825	14,834	9,647	3,391	13,038		1,796
Northwest School and Station (Crookston)								
4-H Club	220	350	570	263	336	599		29
Women's camp		105	105		97	97		8
Totals	220	455	675	263	433	696		21

TABLE III—Continued

School or Course	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
West Central School and Station (Morris)								
4-H Club	280	387	667	300	397	697	30	
Women's week		382	382		300	300		82
Totals	280	769	1,049	300	697	997		52
North Central School and Station (Grand Rapids)								
4-H Club	144	205	349	180	207	387	38	
Women's rest camp		33	33		27	27		6
Totals	144	238	382	180	234	414	32	
Totals, short courses	12,653	4,287	16,940	10,390	4,755	15,145		1,795
Less duplicates								
Net totals, short courses	12,653	4,287	16,940	10,390	4,755	15,145		1,795
Grand totals, schools and short courses	13,755	4,794	18,549	11,468	5,259	16,727		1,822
Less duplicates								
Net grand totals, schools and short courses	13,755	4,794	18,549	11,468	5,259	16,727		1,822

TABLE IVA, EXTENSION ENROLLMENT, 1950-52

Department or Course	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
General extension	6,870	4,550	11,220	6,594	4,608	11,202		18
Extension short courses								
A.I.B. efficient reading				71	26	97	97	
Air pilots' ground school	83	1	84					84
American film series				128	118	246	246	
American literature lecture series				36	118	154	154	
Applied mortuary science	79	1	80					80
Business reports				54	1	55	55	
Cancer				18		18	18	
C.A.R. radio				1	1	2	2	
Cardiovascular disease	97	5	102	43	3	46		56
Commercial pilots' ground school	36		36	280	4	284	248	
Dental assistants		62	62		87	87	25	
Employment agency	31	15	46					46
Hematology - Medical Tech- nology					19	19	19	
Julian DeGray master class		11	11					11
Man and arts				54	106	160	160	
Mental health	138	718	856					856
Motor vehicle fleet supervi- sors				24		24	24	
Piano master class		7	7					7
Physical education program instructors				1		1	1	
Postgraduate dental seminar	31		31					31
Practical speech				20		20	20	
Reinforced concrete	78	1	79					79
Retail florists				63	51	114	114	
Steward training				8	5	13	13	
Symphony listeners rehearsals	10	32	42	4	4	8		34
Teaching of movement		35	35					35
Technical report writing				29	16	45	45	
Union leadership				128	18	146	146	
Voice lesson		1	1					1
X-ray film interpretation	12		12					12
Totals, short courses	595	889	1,484	962	577	1,539	55	
Less duplicates								
Net totals, short courses	595	889	1,484	962	577	1,539	55	
Correspondence study	2,402	2,098	4,500	3,405	2,230	5,635	1,135	
Grand totals, extension	9,667	7,537	17,204	10,961	7,415	18,376	1,172	
Less duplicates	157	179	336	451	322	773	437	
Net grand totals, extension	9,510	7,358	16,868	10,510	7,093	17,603	735	

TABLE IVB. CENTER FOR CONTINUATION STUDY ENROLLMENT, 1950-52

Course	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Administration for group work executives	10	15	25	13	28	41	16	
Adult education conference				15	14	29	29	
Advanced social casework				6	22	28	28	
Advanced supervision				12	2	14	14	
Allergy and hematology				33	2	35	35	
Art and society in modern Scandinavia					3	3	3	
Assessors' school	170	4	174	200	8	208	34	
Atomic medicine	43	1	44					44
Audio-visual institute	67	16	83	77	15	92	9	
Bacteriology for medical technologists				4	96	100	100	
Cardiovascular disease	115	1	116	64	1	65		51
Care of aged in institutional homes	43	77	120	25	66	91		29
Care of mother and newborn infant		56	56					56
Care of patients in nursing home	14	50	64					64
Casework in medical settings				5	36	41	41	
Centennial clinic and surgery	33		33					33
Child care institute	24	62	86	37	71	108	22	
Child psychiatry	26	6	32	15	3	18		14
Children's theatre workshop	18	147	165					165
Church music institute	17	35	52					52
City engineers	17		17	24		24	7	
Civilian defense nursing		176	176					176
Clinical chemistry	83	3	86					86
Clinical chemistry for medical technologists	2	110	112					112
Clinical diabetes		96	96					96
Clinical dietetics					119	119	119	
Clinical neurology	32		32	24		24		8
Commonwealth in the making	104	55	159					159
Concrete conference				248	1	249	249	
Conference of administrators of college and university counseling programs	24	4	28					28
Cooperative editors				47	4	51	51	
Cortisone and ACTH	346	9	355	46	1	47		308
Councilmen's school	42		42	22		22		20
Counseling for the clergy	45		45	91		91	46	
Counseling of college students	15	10	25	14	11	25		
County highway engineers	85		85	81		81		4
Crown and bridge	6		6					6
Democratic folk movements in Scandinavia	5	11	16					16
Dental assistants		21	21		59	59	38	
Dental radiographic techniques				9		9	9	
Dentistry	34		34	32		32		2
Dentistry for children	25		25	16		16		9
Dentistry for children (post-graduate)				10	1	11	11	
Dermatology				40	2	42	42	
Design for arc welding				68		68	68	
Diseases of the chest	46	1	47	48		48	1	
Drilling	84		84					84
Drying oils—processing, production, and uses	108		108					108
Duluth conference on employment security	40	1	41					41
Electrocardiography	88	4	92	94	2	96	4	
Embalmers and morticians administration				42		42	42	
Endodontia	8		8	17		17	9	
Engineers and sewer	4		4	3		3		1
Estate, inheritance, and gift taxes	66	3	69					69
Executive secretaries of county welfare boards				45	23	68	68	
Eye, ear, nose, and throat for general physicians				34		34	34	
Family life				7	54	61	61	
Female and male infertility	38	5	43					43
Fidelity and insurance	43	1	44					44
Finance officers' institute	33	6	39	25	7	32		7

TABLE IVB.—Continued

Course	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Finance officers' school				20		20	20	
Fire and allied lines insurance				53	9	62	62	
Fractures and surgery of trauma	112	1	113	62	1	63		50
Funeral director's apprentices				25	9	34	34	
General surgery	65		65					65
Geology	105	2	107					107
Geology and drilling	106		106					106
Geology of Vermillion				238		238	238	
Gynecology	40	2	42	64	1	65		23
Health of the school-age child		73	73					73
High school guidance	23	35	58	21	21	42		16
Hospital administration	43	55	98	40	50	90		8
Industrial nurses and personnel directors				5	81	86	86	
Industrial nursing	1	66	67					67
Industrial relations	220	20	240	183	9	192		48
Industrial relations labor conference				105	6	111	111	
Infancy blood disease	28	5	33					33
Institute on business history				8	1	9	9	
Junior Red Cross as means of civic enrichment	8	22	30					30
Leaders of parent education				4	79	83	83	
Legal course on new Minnesota rules of civil procedure				239	7	246	246	
Lupus erythematosus	35	3	38					38
Management seminar for co-ops	32		32					32
Marching band institute	54	6	60	69	12	81	21	
Marketing research institute				66	9	75	75	
Master organ class	21	16	37					37
Mental deficiency	12	34	46	33	107	140	94	
Mental health				30	28	58	58	
Methods-time measurement				184	3	187	187	
Mid-Continent regional park and recreation				91	10	101	101	
Mining symposium	359		359	408	1	409	50	
Minnesota Latin workshop	10	28	38	3	19	22		16
Minnesota multiphasic personality inventory	24	1	25					25
Minnesota speech activities				33	74	107	107	
Minnesota traffic court				72	2	74	74	
Mobilization and manpower problems				54	4	58	58	
Mortuary administration	56	6	62					62
Mother and newborn care		63	63		85	85	22	
Motor fleet supervisors	16		16	33		33	17	
Music institute for rural educators				2	104	106	106	
National rehabilitation association				67	26	93	93	
Needs of mothers and infants					80	80	80	
Neurologic roentgenology	111	2	113					113
Nursing care of poliomyelitis patients		31	31					31
Nursing in tuberculosis		91	91					91
Obstetrics	104	1	105	38	4	42		63
Operative dentistry	8		8					8
Ophthalmology	56	1	57					57
Oral medicine seminar	121		121	79		79		42
Oral surgery	34		34	33		33		1
Otolaryngology				30		30	30	
Pediatrics	41	5	46	122	8	130	84	
Pharmacy	43	12	55	51	14	65	10	
Philosophy of education	13	4	17					17
Physical medicine and rehabilitation				24		24	24	
Piano clinic and workshop	5	138	143					143
Poliomyelitis	30	3	33					33
Principles of social case work				11	21	32	32	
Probation and parole	53	17	70	67	11	78	8	
Problems in juvenile delinquency	48	3	51					51
Proctology	23		23	27		27	4	
Professional counseling and placement		39	39					39
Prosthesis (full dentures)	15		15	23		23	8	

TABLE IVB.—Continued

Course	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Prosthesis (partial dentures)	9		9					9
Public liability insurance	82	3	85	62	2	64		21
Public welfare				14	39	53	53	
Puppetry				7	45	52	52	
Radiographic technic	6		6	18		18	12	
Radio news	42	4	46	55	1	56	10	
Radiology				48		48	48	
Religion in state universities	11	34	45	30	7	37		8
Residential counseling	16	24	40					40
Roentgenology of chest diseases				134	1	135	135	
School health for public health and school nurses				97		97	97	
Sewer school				55		55	55	
Social work				18	36	54	54	
Surgery				34		34	34	
Supervision	54	79	133	51	87	138	5	
Supervision in social case work				8	7	15	15	
Therapeutics				44	1	45	45	
Traffic judges and prosecutors	49	1	50					50
Tuberculosis control for lay persons	16	102	118	7	91	98		20
Urology	73		73					73
Water school	49		49	70		70	21	
Water and engineers	2		2	6		6	4	
Water, engineers and sewer	10		10	9		9		1
Water and sewer schools	28		28	42		42	14	
What do we believe					49	49	49	
X-ray technology	7	85	92	20	92	112	20	
Your home		62	62					62
Totals	4,532	2,165	6,697	5,139	2,005	7,144	447	
Less duplicates								
Net totals	4,532	2,165	6,697	5,139	2,005	7,144	447	

TABLE V. ENROLLMENT SUMMARY, 1950-52

Division	Year 1950-51			Year 1951-52			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Collegiate students	21,445	9,403	30,848	17,827	8,258	26,085		4,763
Sub-collegiate students	13,755	4,794	18,549	11,468	5,259	16,727		1,822
Totals	35,200	14,197	49,397	29,295	13,517	42,812		6,585
Less duplicates								
Net totals	35,200	14,197	49,397	29,295	13,517	42,812		6,585
Extension students	9,510	7,358	16,868	10,510	7,093	17,603	735	
Center for Continuation Study	4,532	2,165	6,697	5,139	2,005	7,144	447	
Grand totals	49,242	23,720	72,962	44,944	22,615	67,559		5,403
Less duplicates	3,122	1,486	4,608	1,451	775	2,226		2,382
Net grand totals	46,120	22,234	68,354	43,493	21,840	65,333		3,021

TABLE VI. COMPARATIVE ENROLLMENT FIGURES, 1950-52

Instructional Unit	1950-51			1951-52			Gain		Loss	
	M	W	T	M	W	T	M	W	M	W
General College	1,207	391	1,598	889	338	1,227			318	53
University College	65	21	86	40	26	66		5	25	
Science, Literature, and the Arts	4,410	2,265	6,675	3,554	2,161	5,715			856	104
Institute of Technology	2,557	35	2,592	2,125	9	2,134			432	26
Agriculture, Forestry, Home Economics, and Veterinary Medicine (including schools of agriculture and agricultural short courses)	14,828	5,143	19,971	12,239	5,601	17,840		458	2,589	
Law	474	18	492	384	11	395			90	7

TABLE VI.—Continued

Instructional Unit	1950-51			1951-52			Gain		Loss	
	M	W	T	M	W	T	M	W	M	W
Medicine (including Medical Technology, Nursing, Physical and Occupational Therapy, and Public Health)	705	686	1,391	715	655	1,370	10			31
Dentistry (including Dental Hygiene)	344	96	440	351	91	442	7			5
Pharmacy	398	25	423	300	27	327		2	98	
Education (including High School, Nursery School and Kindergarten, and Elementary School)	1,510	1,822	3,332	1,026	1,616	2,642				484
Business Administration	995	47	1,042	687	38	725				308
Graduate School	3,713	653	4,366	3,226	551	3,777				487
Duluth Branch	1,252	576	1,828	930	468	1,398				322
Summer Session (net)	8,397	3,872	12,269	7,416	3,324	10,740				981
Totals	40,855	15,650	56,505	33,882	14,916	48,798				6,973
Less duplicates	5,655	1,453	7,108	4,587	1,399	5,986				1,068
Net totals	35,200	14,197	49,397	29,295	13,517	42,812				5,905
Extension										
General extension	6,670	4,550	11,220	6,594	4,608	11,202		58		76
Short courses	595	889	1,484	962	577	1,539		367		312
Correspondence study	2,402	2,098	4,500	3,405	2,230	5,635	1,003	132		
Totals	9,667	7,537	17,204	10,961	7,415	18,376		1,294		122
Less duplicates	157	179	336	451	322	773		294	143	
Net totals	9,510	7,358	16,868	10,510	7,093	17,603	1,000			265
Center for Continuation Study	4,532	2,165	6,697	5,139	2,005	7,144	607			160
Summary:										
Totals, resident students	35,200	14,197	49,397	29,295	13,517	42,812				5,905
Totals, extension students	9,510	7,358	16,868	10,510	7,093	17,603	1,000			265
Totals, Center for Continuation Study	4,532	2,165	6,697	5,139	2,005	7,144	607			160
Grand totals	49,242	23,720	72,962	44,944	22,615	67,559				4,298
Less duplicates	3,122	1,486	4,608	1,451	775	2,226				1,671
Net grand totals	46,120	22,234	68,354	43,493	21,840	65,333				2,627

TABLE VIIA. DEGREES CONFERRED, 1950-52

College and Degree	Year 1950-51			Year 1951-52		
	Men	Women	Total	Men	Women	Total
Science, Literature, and the Arts						
B.A. <i>summa cum laude</i>	7	6	13	8	3	11
B.A. <i>magna cum laude</i>	45	28	73	45	19	64
B.A. <i>cum laude</i>	55	35	90	44	36	80
B.S. <i>magna cum laude</i>		3	3			
B.S. <i>cum laude</i>		4	4			
B.S. in library science <i>cum laude</i>		3	3		2	2
B.A.	662	217	879	452	177	629
B.S.	2	15	17	3	6	9
B.S. in library science	14	22	36	9	11	20
Associate in liberal arts	62	49	111	24	48	72
Institute of Technology						
B.S. with high distinction	12	1	13	10		10
B.S. with distinction	20		20	25		25
B.S.	12		12	18		18
Bachelor of aeronautical engineering with high distinction	1		1			
Bachelor of aeronautical engineering with distinction	8		8	3		3
Bachelor of aeronautical engineering	37		37	12		12
Bachelor of agricultural engineering with high distinction				1		1
Bachelor of agricultural engineering with distinction	3		3	2		2
Bachelor of agricultural engineering	15	1	16	6		6

TABLE VIIA.—Continued

College and Degree	Year 1950-51			Year 1951-52		
	Men	Women	Total	Men	Women	Total
Bachelor of architecture with high distinction	2		2			
Bachelor of architecture with distinction	5		5			
Bachelor of architecture	29		29	13		13
Bachelor of civil engineering with high distinction	3		3	2		2
Bachelor of civil engineering with distinction	7		7	10		10
Bachelor of civil engineering	138		138	75		75
Electrical engineer	1		1	1		1
Bachelor of electrical engineering with high distinction	10		10	3		3
Bachelor of electrical engineering with distinction	22		22	4		4
Bachelor of electrical engineering	168		168	63		63
Bachelor of engineering mathematics	2		2	1		1
Bachelor of industrial engineering with high distinction				1		1
Bachelor of industrial engineering with distinction				1		1
Bachelor of industrial engineering	1		1	7		7
Mechanical engineer				1		1
Bachelor of mechanical engineering with high distinction	3		3	2		2
Bachelor of mechanical engineering with distinction	16		16	9		9
Bachelor of mechanical engineering	195		195	72		72
Bachelor of chemical engineering with high distinction	3		3	4		4
Bachelor of chemical engineering with distinction	11		11	5		5
Bachelor of chemical engineering	31		31	29		29
Bachelor of chemistry with high distinction	1		1			
Bachelor of chemistry with distinction	1		1			
Bachelor of chemistry	10		10	1	1	2
Bachelor of physics with high distinction	1		1			
Bachelor of physics with distinction	2		2	1		1
Bachelor of physics	5		5	2		2
Bachelor of geological engineering with distinction	1		1			
Bachelor of geological engineering	4		4	4		4
Bachelor of metallurgical engineering	14		14	6		6
Bachelor of mining engineering with distinction	1		1			
Bachelor of mining engineering	14		14	2		2
Bachelor of petroleum engineering with distinction	1		1			
Bachelor of petroleum engineering	5		5	2		2
Agriculture, Forestry, Home Economics, and Veterinary Medicine						
Doctor of veterinary medicine	23		23	44		44
Master of forestry	5		5			
B.S. with high distinction (agriculture)	1		1	1		1
B.S. with distinction (agriculture)	8		8	6		6
B.S. (agriculture)	107		107	58		58
B.S. with distinction (fish and wildlife management)	1		1	3		3
B.S. (fish and wildlife management)	24		24	9		9
B.S. with distinction (food technology)	2		2			
B.S. with high distinction (forestry)	2		2	3		3
B.S. with distinction (forestry)	7		7	4		4
B.S. (forestry)	75		75	50		50
B.S. with high distinction (home economics)		1	1		1	1
B.S. with distinction (home economics)		7	7		6	6
B.S. (home economics)		57	57		43	43
B.S. with distinction (science specialization)	2		2	1		1
B.S. (science specialization)	4		4	1		1
B.S. with high distinction (veterinary medicine)	6		6	1		1
B.S. with distinction (veterinary medicine)	5		5	3		3
B.S. (veterinary medicine)	24		24	16		16
Agriculture and Education						
B.S. with high distinction (agricultural education)	1		1	2		2
B.S. with distinction (agricultural education)	7		7	5		5

TABLE VIII.—Continued

College and Degree	Year 1950-51			Year 1951-52		
	Men	Women	Total	Men	Women	Total
B.S. (agricultural education)	45		45	20		20
B.S. with distinction (home economics education)		5	5		9	9
B.S. (home economics education)		39	39		37	37
Agriculture and Business Administration						
Bachelor of agricultural business administration with distinction	1		1			
Bachelor of agricultural business administration	3		3	4		4
Law School						
Bachelor of laws	129	2	131	113	6	119
Bachelor of science in law	83	1	84	41		41
College of Medical Sciences						
Master of public health	18	14	32	13	13	26
Master of hospital administration	17	2	19	29		29
Doctor of medicine	88	4	92	106	7	113
Bachelor of medicine	105	8	113	111	5	116
B.S. (medicine)	105	3	108	72		72
B.S. with high distinction (medical technology)						
B.S. with distinction (medical technology)		8	8		6	6
B.S. (medical technology)	3	27	30		30	30
B.S. with high distinction (occupational therapy)		1	1		2	2
B.S. with distinction (occupational therapy)		6	6		10	10
B.S. (occupational therapy)		13	13		14	14
B.S. with distinction (physical therapy)	1	2	3	2	1	3
B.S. (physical therapy)	4	3	7	7	6	13
B.S. with high distinction (public health nursing)		4	4		4	4
B.S. with distinction (public health nursing)		11	11		14	14
B.S. (public health nursing)		55	55		49	49
B.S. in professional nursing				2	14	16
Graduate in nursing		29	29		36	36
Dentistry						
Doctor of dental surgery	82		82	83		83
Graduate dental hygienist		32	32		33	33
Bachelor of science				195	1	196
Pharmacy						
B.S. in pharmacy	76	6	82	75	4	79
Education						
Master of education	42	13	55	24	19	43
B.S. with high distinction	4	17	21	1	24	25
B.S. with distinction	39	78	117	13	88	101
B.S.	298	320	618	181	320	501
B.S. in library science	7	25	32	2	21	23
School of Business Administration						
B.B.A. with high distinction	8	1	9	2		2
B.B.A. with distinction	40	2	42	33	3	36
B.B.A.	326	4	330	253	13	266
B.S. in economics with high distinction				2		2
B.S. in economics with distinction		1	1	1		1
B.S. in economics	6	1	7	7		7
University College						
B.A. magna cum laude				1		1
B.A. cum laude		1	1	1		1
B.A.	18	10	28	3	7	10
B.S. cum laude					1	1
B.S.	19		19	9		9
General College						
Associate in arts	163	36	199	139	32	171
Graduate School						
Master of arts	350	114	464	346	111	457
Master of fine arts				2		2
Master of arts in public administration	3	1	4	8	2	10
Master of business administration	11		11	5	1	6
Master of science	127	23	150	118	24	142
M.S. in aeronautical engineering	24		24	11		11
M.S. in agricultural engineering	6		6	4		4
M.S. in chemical engineering	19	1	20	9		9
M.S. in civil engineering	22	1	23	20		20
M.S. in electrical engineering	10		10	15		15
M.S. in mechanical engineering	18		18	17		17

TABLE VIIA.—Continued

College and Degree	Year 1950-51			Year 1951-52		
	Men	Women	Total	Men	Women	Total
M.S. in mining engineering	1		1			
M.S. in anesthesiology	2		2	3		3
M.S. in dental surgery				1		1
M.S. in industrial engineering				2		2
M.S. in dentistry	7		7	5		5
M.S. in dermatology and syphilology	4		4	2		2
M.S. in medicine	31	2	33	23		23
M.S. in neurology	1		1			
M.S. in neurological surgery	1		1			
M.S. in neurosurgery	2		2	4		4
M.S. in obstetrics and gynecology	2		2	3		3
M.S. in ophthalmology	4		4	1		1
M.S. in orthopedic surgery	5		5	3		3
M.S. in otolaryngology and rhinology	6		6	1		1
M.S. in pathology	2		2			
M.S. in pediatrics	1		1	4		4
M.S. in physical medicine	1		1	3		3
M.S. in proctology	1		1	1		1
M.S. in psychiatry				1		1
M.S. in radiology	2		2	3		3
M.S. in surgery	22		22	22		22
M.S. in urology	4		4	2		2
Master of social work	19	20	39	17	28	45
Doctor of philosophy	179	9	188	173	11	184
Ph.D. in medicine	2		2	2		2
Ph.D. in neurology	1		1			
Ph.D. in neurosurgery	1		1	1		1
Ph.D. in ophthalmology	1		1			
Ph.D. in radiology				1		1
Ph.D. in surgery	2		2	7		7
Ph.D. in physiology				1		1
Ph.D. in obstetrics and gynecology				1		1
Duluth Branch						
B.A. cum laude	7	1	8	12	3	15
B.A.	188	22	210	139	14	153
B.S.	84	60	144	58	59	117
Associate in arts	1	2	3		1	1
B.S. cum laude	14	14	28	10	9	19
Grand totals	4,884	1,503	6,387	3,800	1,446	5,246

TABLE VIII. CERTIFICATES CONFERRED, 1950-52

School, Division, or Course	Year 1950-51			Year 1951-52		
	Men	Women	Total	Men	Women	Total
School of Agriculture (St. Paul)	51	17	68	42	56	98
Applied mortuary science	50		50	37		37
Extension	26		26	29	7	36
Hospital library certificate					1	1
North Central School and Station (Grand Rapids)	29		29	3		3
Northwest School and Station (Crookston)	43	27	70	109	45	154
Practical nursing					45	45
Public health nursing		42	42		64	64
Technical aid certificate	32	1	33	33	1	34
University High School	32	32	64	34	30	64
West Central School and Station (Morris)	66	27	93	48	19	67
Totals	329	146	475	335	268	603

THE PRESIDENT'S REPORT

TABLE VIIIA. STUDENTS ENTERED FROM HIGH SCHOOLS, 1950-51

Entrants From											Totals
	General College	S., L., and A.	Institute of Technology	A., F., and H. E.	Nursing	Dental Hygiene	Pharmacy	Education	Veterinary Medicine	Duluth	
Minneapolis public schools	294	563	125	76	12	9	18	104	.....	5	1,206
St. Paul public schools	137	220	63	25	2	4	8	27	.....	.....	466
Other Minnesota high schools	163	498	128	160	6	10	35	88	.....	427	1,515
Minnesota private schools	80	143	34	21	2	3	10	8	.....	20	321
Totals from Minnesota	674	1,424	350	282	22	26	71	227	.....	452	3,528
Other states	32	128	31	26	2	5	2	13	.....	46	285
Foreign countries	1	3	3	1	.....	.....	.....	1	.....	3	12
Totals	707	1,555	384	309	24	31	73	241	.....	501	3,825
No information	6	81	6	5	2	.....	.....	62	.....	7	169
Grand totals	713	1,636	390	314	26	31	73	303	.....	508	3,994

TABLE VIIIB. STUDENTS ENTERED FROM HIGH SCHOOLS, 1951-52

Entrants From											Totals
	General College	S., L., and A.	Institute of Technology	A., F., and H. E.	Nursing	Dental Hygiene	Pharmacy	Education	Duluth		
Minneapolis public schools	221	497	102	59	9	13	12	83	.....	996
St. Paul public schools	73	182	41	27	2	4	4	30	.....	363
Other Minnesota high schools	164	554	154	174	3	8	20	49	342	1,468	
Minnesota private schools	59	111	37	14	1	2	2	11	.....	237
Totals from Minnesota	517	1,344	334	274	15	27	38	173	342	3,064	
Other states	20	113	26	12	.....	5	1	15	31	223
Foreign countries .....	.....	3	1	1	1	.....	.....	.....	4	10
Totals	537	1,460	361	287	16	32	39	188	377	3,297	
No information	11	45	2	5	1	.....	.....	3	29	96
Grand totals	548	1,505	363	292	17	32	39	191	406	3,393	

TABLE IXA. SUMMARY OF STUDENTS ENTERED WITH ADVANCED STANDING, 1950-51

Entrants From	Entrants From																Totals			
	General College	University College	S., L., and A.	Institute of Technology	A., F., and H. E.	Law	Medicine	Medical Technology	Public Health	Occupational Therapy	Physical Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education		Business	Veterinary Medicine	Duluth
Institutions in Minnesota	37	2	275	83	101	23	27	8	11			13	21	7	27	116	58	1	89	899
Institutions in other states	13	1	248	54	46	16	1	4	69	1	2	7	11	3	6	109	26	11	31	659
Institutions in foreign countries			13	13	4	1	1		12				2		1	3	4	2	4	60
Totals	50	3	536	150	151	40	29	12	92	1	2	20	34	10	34	228	88	14	124	1,618
No information	2		51	4	1	2			15						1	34	3		3	116
Grand totals	52	3	587	154	152	42	29	12	107	1	2	20	34	10	35	262	91	14	127	1,734

TABLE IXB. SUMMARY OF STUDENTS ENTERED WITH ADVANCED STANDING, 1951-52

Entrants From	Entrants From																Totals			
	General College	University College	S., L., and A.	Institute of Technology	A., F., and H. E.	Law	Medicine	Medical Technology	Public Health	Occupational Therapy	Physical Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education		Business	Veterinary Medicine	Duluth
Institutions in Minnesota	27	2	275	78	81	31	23		11		5	19	19	7	16	114	29	12	66	815
Institutions in other states	15		229	41	36	9	4	2	44	2	1	7	11	2	4	85	19	21	14	546
Institutions in foreign countries	1		24	24	11	3	6		23	2		1	4	1	4	3	6	3	2	118
Totals	43	2	528	143	128	43	33	2	78	4	6	27	34	10	24	202	54	36	82	1,479
No information	19	1	164	19	22		1	5	13			2	4	2	2	110	9	22	10	405
Grand totals	62	3	692	162	150	43	34	7	91	4	6	29	38	12	26	312	63	58	92	1,884

TABLE XA. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF STUDENTS OF COLLEGIATE GRADE
(OTHER THAN SUMMER SESSION), 1950-51

	General College	University College	S., L., and A.	Institute of Technology	A., F., and H. E.	Law	Medicine	Medical Technology	Public Health	Occupational Therapy	Physical Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business	Graduate	Veterinary Medicine	Duluth	Duplicates	Totals	
Counties in Minnesota																							
Hennepin	904	40	3,333	1,002	521	204	206	38	57	27	12	106	70	31	109	1,232	449	967	20	14	363	9,342	
Ramsey	427	15	1,195	494	258	82	102	10	11	4	2	31	50	14	55	458	162	501	13		164	3,884	
Other Minnesota counties	249	21	1,659	891	924	171	245	42	65	17	10	69	186	31	240	819	353	869	113	1,790	412	8,764	
Totals	1,580	76	6,187	2,387	1,703	457	553	90	133	48	24	206	306	76	404	2,509	964	2,337	146	1,804	939	21,990	
Other states	17	10	472	191	96	34	53	11	163	6	3	71	41	14	18	251	73	1,665	25	24	77	3,238	
Foreign countries	1		16	14	13	1		1	29				3		1	9	5	364	2		5	459	
Grand totals	1,598	86	6,675	2,592	1,812	492	606	102	325	54	27	277	350	90	423	2,769	1,042	4,366	173	1,828	1,021	25,687	

TABLE XB. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF STUDENTS OF COLLEGIATE GRADE
(OTHER THAN SUMMER SESSION), 1951-52

	General College	University College	S., L., and A.	Institute of Technology	A., F., and H. E.	Law	Medicine	Medical Technology	Public Health	Occupational Therapy	Physical Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business	Graduate	Veterinary Medicine	Duluth	Duplicates	Totals	
Counties in Minnesota																							
Hennepin	688	26	2,668	824	422	166	222	28	55	25	13	75	75	32	89	886	301	810	18	10	138	7,433	
Ramsey	305	11	999	396	168	71	107	12	17	2	3	31	48	14	44	348	120	383	10	4	57	3,093	
Other Minnesota counties	197	23	1,413	730	801	135	239	33	48	19	18	91	192	20	173	519	234	702	114	1,128	279	6,829	
Totals	1,190	60	5,080	1,950	1,391	372	568	73	120	46	34	197	315	66	306	1,753	655	1,895	142	1,142	474	17,355	
Other states	18	4	453	163	79	20	49	7	122	5	4	87	39	15	18	199	57	1,452	38	30	22	2,859	
Foreign countries	2		31	15	11	3	1	2	31		1	1	2	1	1	9	4	394	1	2		512	
No information	17	2	151	6	12			4	13			5	2	2	2	109	9	36	11	224		605	
Grand totals	1,227	66	5,715	2,134	1,493	395	618	86	286	51	39	290	358	84	327	2,070	725	3,777	192	1,398	496	21,331	

MINNESOTA STUDENT UNIONS

With the reduction in student enrollment and the increase in operating costs, the Unions have been challenged to stretch the budget and, at the same time, provide the program and services which the University community has wanted.

Like other University departments, there has been a reduction in staff. With less student-spending money and operating on a fee, which, due to inflation, is approximately two-thirds that of the original fee, the Union Board of Governors has been taxed in operating and maintaining the building and, at the same time, producing a good social and recreational program.

Coffman Memorial Union—One of the major changes in administration was the abrupt resignation of G. Ray Higgins as of January 1, 1952. For 21 years Mr. Higgins served as head of the Men's Union and its successor, Coffman Memorial Union, completed in 1940. He was a national leader in college unions and served as president of the Association of College Unions in 1938. Through his guidance the Minnesota Student Unions have been acclaimed as outstanding in both program and plant facilities.

Upon the resignation of Mr. Higgins, Gordon L. Starr, former manager of the Farm Union, was promoted to director of Student Unions and Paul W. Larson, former manager of the Village Union in University Village, became manager of the Farm Union.

Coffman Union Board of Governors—During the past two years there has been a considerable turnover in the Union Board membership. A complete reorganization of each Board member's responsibility to his sponsorship committee and standing committees has taken place. Board members have not looked upon the Union as a separate entity, but rather upon the campus as a whole.

As an aid to student leadership development a workshop for committee chairmen was held and conducted by a staff member from the Department of Sociology.

During this biennium the Coffman Memorial Union Board of Governors sponsored and arranged through committees some 2,848 separate events with an attendance of over 380,070. In recognition of service for these events a Merit Reception was held and keys and merit certificates were awarded to 105 committee members.

Program Office—The tenth anniversary of the opening of Coffman Memorial Union was a significant feature of the past biennium. Student participation and leadership in the special activities of Anniversary Week focused attention anew on the vital role the Union plays in student life.

Much has been said and written about retrenchment at the University. Costs have been sharply cut wherever possible and emphasis in programming has swung, of necessity, toward those activities which do not require heavy subsidization. Students have demonstrated an understanding of the situation and a willingness to adjust to it. They have taken the initiative, for example, in abolishing free passes to committee members for the major Union events and in discontinuing dinners at the weekly Union Board meetings.

Cultural activities have been on the upward swing. Student art shows and art exhibits and the Record Lending Library have grown in popularity along with the classical music program. WMMR, the student radio station, has grown and expanded to the point where it has been broadcasting on a closed circuit to the dormitories on an average of sixty hours per week. In the area of personal improvement for women there has been a shift from mass activities to those concentrating on the individual. With the exception of the popular Wednesday night instruction and the record variety dance which follows, students show more enthusiasm for the major dances of the quarter than for the regularly scheduled orchestra dances. The emergence of television as an increasingly important factor in the entertainment world has resulted in the elimination of some programs and the addition of others. A television lounge, located on the Ballroom balcony and open to students, is a definite attraction, and telecasts of important current events draw capacity crowds.

Two years ago the services of a half-time graduate student were made available to the Program Office for outdoor programs. It is hoped that the

possibility of the establishment of a University Outing Center will materialize in the not-too-far-distant future. Such a center would open a whole new field of recreation for University students.

Exceptionally fine qualities of student leadership were shown in the reorganization and development of one of the Union's major activities, the annual Sno Week.

Tournaments played an important part in the activity program, but the emphasis has always been upon the social and recreational aspects involved rather than upon competition. Instructions and tournaments have given many students new leisure-time skills.

Due to necessity, the Artcraft Workshop, which is subsidized, was closed during the 1952 Summer Session. This shop has served exceedingly well both for individuals who would like to try their fingers at some new art or craft and for organizations that want to make posters or displays; and it is amazing the wide variety of products which have been made.

Summer Program—The Summer Session program offers excellent social, cultural, and recreational opportunities which students are quick to appreciate. The composition of the student body differs so markedly from that of the regular school year that one would expect corresponding differences in participation in activities. Such differences are generally stronger in degree than in kind.

Social dancing, for example, which is popular during the school year, enjoys even greater popularity in the summer despite frequent sizzling temperatures. Folk and square dancing held one evening a week in front of the Union building has attracted unflagging interest, not only from participants, but from the general public as well. The Record Lending Library is well-patronized. Private dance instruction classes are well-filled. The excursions on the steamer "Donna Mae" continue to be perennial favorites. And teachers, seeking assistance in directing leisure time activities, often stop in the Program Office with very specific questions on organization, establishment, or promotion of certain Union-sponsored activities.

Village Union—During the biennium the Village Union has played an important part in the social and cultural life of the Village residents. For example, in 1951-52 there were 333 different programs, the major emphasis being on the Child Care Center. Altogether, Village Union programs attracted 8,813 participants.

One of the highlights of the 1951-52 program was the Kiddie Karnival Parade in which 76 children plus the Bluebird and Cub Scout troops took part. Over 352 adults entered into the program. A survey reveals that some member of the households of over one-third of the respondents used the Village Union more than once a week, and 69 per cent rated the recreational and educational facilities available as "high" or "very high."

Farm Union—As the Farm Union organization moved a year closer to realization of a new student union building on the St. Paul Campus, its efforts have been directed toward the need for making the most of its present facilities.

Through its student-directed activity program the Union provides social, cultural and educational opportunities for the St. Paul Campus population as well as for a considerable number of students registered on the Minneapolis Campus and for University guests who enjoy unique facilities found on the Farm Campus.

Extensive use within the limits of the Union's present facilities plus demonstrated interest in the many recreational functions re-emphasize common knowledge that a new and larger student social center is a prime necessity.

One of the first events of the University year was the annual Farm Union Smorgasbord for new students during Welcome Week. Instruction in ballroom dancing received greatest emphasis in the fall and winter quarters. A spectacular event in the fall quarter was a Monte Carlo Night staged by the International Students Committee. Winter quarter found this same organization staging a Fun Night at which native forms of entertainment in foreign countries provided the program.

Each quarter the Union Board sponsored an Open House party to welcome new students on campus and to assist all students to increase their social

acquaintanceships. Sharing popularity with the Open House program is the series of coffee hours sponsored by the Union Board of Governors. In the game area the Union is providing facilities for billiards, table tennis, shuffleboard, card playing, chess and checkers. Opportunity for development in self-expression was offered through the Toastmaster and Toastmistress organizations. With the Union's darkroom facilities and the able assistance of a University staff member, a highly professional Photo Clinic has benefited students interested in this hobby. Football movies during the fall quarter brought the Minnesota games in pictures to devotees of this sport. A pre-summer splash party held in the swimming pool on the St. Paul Campus gave encouragement for future coeducational swimming parties.

Married students and their families who reside in Grove East Village enjoyed the use of Union facilities and staff assistance in scheduling parties to welcome new villagers, coffee hours for increased social interaction, picnics, a splash party, and meetings of the Village governing body.

Three presidents wielded the gavel over Board business through the course of the year 1951-52 as graduation and the press of graduate study exacted their toll. At the Merit Dinner, for members of the Union programming committees, the Board presented an honorary award in the form of a gold merit key to departing Dean Henry Schmitz in recognition of his years of service on the Board.

Final authorization was received for increased office, conference, and storage space in the building. For the first time, student organizations will have desk space available at all hours of the day for organizational purposes. The St. Paul Campus YMCA and the Minnesota *Daily* have already requested desk space in the new area.

During the biennium there were 1,226 group meetings held in the Farm Union with attendance of over 31,179 people who used the lounge, Student Activities Room, and Corrals for organizational meetings. During this same period the Union Board sponsored some 537 events with attendance of over 27,300 people.

Essential Needs—The first and foremost need is for adequate finances to permit the Student Unions to grow and to develop the expansion plan, which calls for the completion of the new Farm Union. With the amount of approximately \$300,000 on hand, the main question now is how can the additional \$200,000 necessary to complete this project be raised.

Of the \$50,000 renovation fund set up in 1946, there is left less than one-third of the original amount, and there still remains to be done the major job of renovating the flexwood which is installed on the main corridors and in the main lounge of Coffman Memorial Union.

The expansion of the Union's facilities should also be given consideration. It was demonstrated during the last year that the Union was unable to take care of the present demand. Student organizations have been housed in temporary buildings, and requests for the use of the Ballroom, as well as for other facilities, have had to be turned down. Now is the time to plan for major recreational facilities which will be needed at the time when the enrollment will reach a new high.

The University Outing Center Camp, which is a much-talked-of project among students, would be a big factor in the year-round outing program.

Closely allied with finances is the need for more personnel at Coffman Memorial Union.

These needs—in finances and personnel—call for a complete re-evaluation of the Union program in terms of both participation and attitudes toward Coffman Memorial Union and educational leisure.

Until the day when additional time, staff, and facilities can be added to the Union program, it will not be able to carry out its fullest obligations to the University community.—GORDON L. STARR, *director*.

UNIVERSITY HEALTH SERVICE

The new Health Service building was completed and ready for occupancy in September, 1950. The excellent facilities provided in the new building have made it possible to carry on the health program more effectively and to restore certain parts of the program which had been discontinued because of

lack of space. The addition to the Health Service of its own pharmacy and X-ray department, as well as adequate examining rooms, has provided more efficient service for students than was formerly possible. The special diet table which was discontinued in the summer of 1943 because of lack of space was re-opened in the winter quarter of 1951. With modern buildings on the St. Paul and Minneapolis campuses the University of Minnesota now has physical facilities for its Health Service second to none.

The general health of the students during this biennium has been excellent. No epidemics of any form have occurred. There has been one death from suicide.

In spite of decreased enrollment and absence of epidemics the utilization which students have made of the Health Service has increased. This trend is undoubtedly good, as the preventive aspects of the program are only as effective as the use students make of the Health Service.

Health Problems of Veterans—The decreased number of veterans on the campus has reduced considerably the administrative and clerical time required in contacts with the Veterans Administration. There still are and undoubtedly will continue to be many requests for medical reports by the veterans to aid in establishing eligibility for care at the Veterans Administration. The provision for appraisal of medical feasibility of veterans who were counseled in the Veterans Counseling Service has been discontinued.

General Program—The general program of health examinations, provisions of medical and hospital care, individual health counseling and instruction, and expansion of the supervision of the environmental sanitation has been continued.

Health Examinations—Complete health examinations were given to more than 20,000 students during the biennium. While the number of medical examinations required of entering students decreased, there was a relative increase in the number of periodic health examinations performed. As has been noted before, this increase in periodic health examinations is due partially to the fact that more colleges and departments of the University are requiring a medical examination to determine the physical and emotional fitness of students for certain professions.

TABLE I. NUMBER OF COMPLETE MEDICAL EXAMINATIONS GIVEN

Year	Entrance	Periodic	Total
1942-43	5,944	2,977	8,921
1943-44	4,859	1,782	6,641
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

TABLE II. VISITS TO THE HEALTH SERVICE (MINNEAPOLIS CAMPUS) FOR MEDICAL ATTENTION

Year	Number of Visits*	Average Number of Visits per Student (Academic Year)
1942-43	43,530	3.14
1943-44	45,896	4.65
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

* These totals do not include visits for physical examinations, dentistry, hospitalization, immunity tests, physiotherapy, laboratory or x-ray services.

Medical Care—During the biennium over 133,000 visits were made to the Health Service dispensary for medical care. This again is relatively high in proportion to enrollment, the average number of visits per student enrolled being the highest in 1951-52 of any year except from 1943-46 when the Health Service provided care for Army and Navy units stationed on the campus.

Hospital Care—Hospitalization during the biennium continued to be extremely low. There was a very low incidence of respiratory infections and no epidemics of any consequence. The average hospital stay in days for the year 1951-52 was the lowest in the history of the Health Service. This reflects many of the advances in medical care which have taken place over the past few years, such as the use of antibiotic drugs and the early ambulation of surgical patients.

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
1942-43	1,800	118.4	8,687	4.8	No epidemic (Army during 3 mos. of period)
1943-44	2,261	190.2	11,228	5.0	Influenza epidemic
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

Mental Hygiene—A total of 1,098 students was seen in the Mental Hygiene Department during the biennium. This included 880 new patients referred to the clinic and 218 students who were carried over from previous years. During the biennium, also, the group psychotherapy has been enlarged. Thirty groups have been meeting during this two-year period, with 167 students in attendance. As in past years, an increasing number of students seek help in the Mental Hygiene Clinic voluntarily, with the majority of referrals coming from the physicians in the Health Service dispensary and an increasing number from the Counseling Bureau and faculty.

Tuberculosis Control—The tuberculosis case-finding program, which has been in effect for many years, has continued. This consists of a tuberculin test and photofluorographic examination of the chest of each new student and of every student having a periodic health examination. The photofluorographic examination of the chest has also been done on all faculty and non-academic employees given a pre-employment examination.

During the biennium, 12 cases of active tuberculosis were found among students and one in a faculty member at these routine health examinations. Ten of the 12 cases among students were sent to sanatoria for treatment and 2 returned to their homes. In addition, there were 107 students and 21 staff members with arrested tuberculosis who have been kept under observation in the Health Service during this biennium.

Special Diet Table—The special diet table where students with diabetes, ulcer, allergies, obesity, etc., eat their meals, was re-instituted in the winter quarter of 1951. Because of lack of personnel and space, the special diet table had been discontinued in 1943. Tables IV and V present the data for the numbers of students treated at the special diet table during the biennium. If this facility were not available, many of the students eating at the diet table would be unable to continue their academic work at the University. In addition to those students who eat their meals at the Health Service, 796 students were given dietary counseling by the physician and dietitian during this period. The dietary counseling service and the diet table are extremely important health educational services.

THE PRESIDENT'S REPORT

TABLE IV. SPECIAL DIET TABLE
KIND AND NUMBER OF CASES, 1951-52*

Type of Diet	Number on Diet	Per Cent
Reduction	35	55.5
Diabetic	7	11.3
Bland	6	9.9
Supernourishing	3	5.0
Allergy	2	3.3
Salt-Free	4	6.7
Low Residue	2	3.3
Fat-free—low fat	2	3.3
High Protein	1	1.7
Total	62	100.0

* Diet table not in operation complete year 1950-51.

TABLE V. AVERAGE NUMBER OF PATIENTS SERVED DAILY—1951-52

Quarter	Average Number
Fall	19.2
Winter	25.0
Spring	26.5

Special Services—Consultation service in all of the medical specialties has been continued. The number of students with convulsive disorders who need careful medical supervision if they are to remain in school continues to be high. With the cooperation of the Department of Neurology of the Medical School, excellent neurological consultation service has been made possible. There is also an increasing demand for consultation service in dermatology. The demand for eye refractions also continues to be very high. It has been difficult to obtain the services of a sufficient number of ophthalmologists to meet this demand. The study which was made during the past biennium to find a method of screening students with eye problems and thereby save the time of the ophthalmologists was not productive.

St. Paul Campus—Tables VI and VII present the out-patient and hospital services in the Health Service on the St. Paul Campus. With the marked decrease in enrollment in the School of Agriculture the number of services rendered in both the out-patient department and the hospital was very low. The number of students hospitalized in 1951-52 was the lowest in the history of the St. Paul Campus Health Service. Consultation services in dentistry, dermatology, and ophthalmology have been continued on this campus.

TABLE VI. ST. PAUL CAMPUS HEALTH SERVICE: OUT-PATIENT DEPARTMENT

Year	Medical Attention	Total Immunizations	Total Services Rendered
1942-43	2,047	696	2,743
1943-44	2,343	1,128	3,471
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

TABLE VII. STUDENT HOSPITAL CARE (ST. PAUL CAMPUS)

Year	Number of Patients	Number of Hospital Days	Average Stay in Days	Comments
1942-43	166	721	4.3	No epidemic
1943-44	458	1,895	4.1	Influenza epidemic
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

Faculty Examinations—During this biennium, 324 medical examinations were given to new members of the academic staff and to those promoted to positions implying tenure.

Civil Service Examinations—A total of 1,512 medical examinations was performed on individuals applying for positions on the regular payroll of the Civil Service staff during the biennium. This is 200 more than were done in the previous biennium. Twenty of the group were found to have physical disabilities which prevented employment for the type of work for which they were applying.

As yet no program has been provided for the physical examinations of the many employees of the University who are on the miscellaneous payroll. This is a problem which needs consideration.

Environmental Sanitation—Annual inspection of student housing has continued, with 3,089 visits being made to such units in 1950-52. Close cooperation with the Minneapolis and St. Paul Fire and Building Departments has continued. It is gratifying to note, also, that the interest and cooperation of the householders improves yearly and real progress in the improvement of housing facilities is evident.

The public health engineer on the Health Service staff has continued to give consultation service to fraternities and sororities and other student organizations planning to build or remodel houses.

Sanitary surveys have been made at regular intervals of all food services operated by the University and food services operated by fraternities, sororities, student cooperatives, and religious foundations. The public health engineer has continued to give recommendations to the architects and alumni of various student organizations regarding plans and specifications for kitchens and other food services.

The examination and supervision of food handlers has continued. Probably even more important from the preventive point of view are the training programs for food service employees. The excellent cooperation of Service Enterprises and directors of the Food Services has made this program effective.

The five University swimming pools are supervised constantly. This supervision includes the collection of samples of water from each of the pools weekly, checks on chlorination of the pools and on conditions of operation and maintenance. Plans for remodeling and improving certain of the pools have been reviewed by the public health engineer at the request of the Department of Physical Plant.

Since the University operates its own pasteurization plant, considerable time of the public health engineer has been spent in working with the personnel in charge of this plant to insure provision of safe, pure milk for the campus.

During the past two years additional service has been provided by the public health engineer at the Rosemount Research Center, where problems of water supply and waste disposal have arisen.

At the request of the head of one of the laboratories in the Medical School a survey was made of the mercury concentration in the air in this laboratory. This survey was done in cooperation with the Industrial Hygiene Division of the State Health Department. In this particular laboratory it was found that the concentration of mercury far exceeded the safe level and was a potential health hazard to all working in the laboratory. Recommendations were made for certain changes in equipment and housekeeping, and a subsequent survey showed the hazard had been removed. Because of the findings in this one laboratory a survey was made of several laboratories in which quantities of mercury are used in certain chemical determinations. In several instances it was found that the mercury concentration was at or above the safe level. In most instances relatively inexpensive and simple changes in procedures and housekeeping made it possible to prevent this hazard to health. Surveys of other potentially dangerous health hazards in certain of the laboratories are now under way.

Research—A controlled study of the effectiveness of a new drug for the control of coughs was started in 1951-52 and is being continued.

During the past year a follow-up study to obtain information on what happens to students who have had positive tuberculin tests and/or pleurisy

or other pulmonary lesions has been started. This study is being carried out on student nurses. All student nurses from the year 1928 to the present time are being reached by letter and data obtained about their tuberculin reaction and chest X-rays since leaving school, as well as information about any interim illnesses. A similar study is being made of former medical students. Such a study, when completed, should give important information about the significance of tuberculous infection and pleural or pulmonary disease.—RUTH E. BOYNTON, M.D., *director*.

UNIVERSITY OF MINNESOTA PRESS

With the close of the biennium, the University of Minnesota Press completed 25 years of active operation. Its growth has been slow but substantial. It began with a microscopic budget in a period of rising costs following World War I, survived the Great Depression, had a period of more rapid growth during World War II and immediately thereafter, but again is struggling with the high costs of a new inflationary period.

This same 25-year period has seen a multiplication of American university presses so that in 1952 the Association of American University Presses numbered forty member presses, and perhaps as many more colleges and universities not in the Association were issuing books and pamphlets under their own imprint. In fact, university publishing has become a necessity, if higher education and scholarship as we have known them are to survive. To stem the tide of anti-intellectualism rising so menacingly in this country will take the best thought and effort of all educated people.

In retrospect, the University of Minnesota Press seems to have come full circle. Beginning very modestly as an adjunct to the Graduate School, the Press through a combination of fortunate circumstances seemed for a time to rise above its severe limitations of space and budget and to become a full-fledged publishing organization of national and international scope. Now the trend is in the opposite direction—toward its becoming a "captive" press, publishing chiefly "mandated" brochures and reports and such books and monographs as cannot find publication elsewhere.

Neither the academic public nor the general public is likely to value the Press or its output more highly than does the University itself, as evidenced by its support in the form of budget, academic status of the professional staff, and dignified as well as adequate housing. In all these respects the University of Minnesota Press has been and continues to be far behind its scholarly competitors.

Within the national Association the staff has continued to receive recognition and responsibility during the biennium. The director served as vice-president in 1950-51, and as a member of the committee on foreign trade; Helen MacDonald was chairman of the exhibits committee and Irma Koefod was a member of the committee on uniform accounting; Helen Clapesattle was elected member-at-large of the executive committee for 1952-53.

Foreign trade during the biennium showed a slight increase, chiefly in the territories covered by our agents Henry Snyder and W. S. Hall. Exports to Oxford University Press, London, were down slightly, those to Canada down considerably, from the preceding biennium. A list of translations arranged for will be found at the end of this report.

American Quarterly after a two-year trial run was transferred to the University of Pennsylvania Press.

The American Institute of Graphic Arts selected *Sculpture in Wood* by John Rood as one of the Fifty Books of its year.

Basic Books made *Group Treatment in Psychotherapy* by Robert G. Hinckley and Lydia Hermann its January, 1952 selection.

Important projects in biology and medicine, announced in the previous biennial report, were completed and published as listed in the chronology at the end of this report: *The Biology of Human Starvation*; *Hypertension: A Symposium*; *The Zoology of Tapeworms*; and *The Integument of Arthropods*.

Published also, in celebration of the centennial of the founding of the University, was James Gray's history, *The University of Minnesota, 1851-1951*, which has been hailed by reviewers as one of the finest histories of a college or university ever written.

Long-range plans for the future are impossible under present conditions. It may still be possible to halt or reverse the retrograde movement now apparent in the activities of the Press but only by decisive action along the lines recommended with tiresome reiteration year after year by the director and her colleagues.

Following is a list of publications for the biennium, July 1, 1950, to June 30, 1952:

- Understanding Ourselves.* Marion L. Faegre. (8th printing.) Issued: July 28, 1950. Price: 50 cents. 44 pages. Paper. 5 x 7. Edition: 50,305.
- Intergovernmental Relations and the Courts.* Forrest Talbott. (Intergovernmental Relations Series No. 1.) Published: August 28, 1950. Price: \$3.00. xii plus 148 pages. 14 illustrations. Paper. 8½ x 11. Planographed. Edition: 500.
- Intergovernmental Relations in Highways.* R. A. Gomez. (Intergovernmental Relations Series No. 2.) Published: August 28, 1950. Price: \$2.50. viii plus 124 pages. 8 illustrations. Paper. 8½ x 11. Planographed. Edition: 500.
- Intergovernmental Relations in Education.* Robert L. Morlan. (Intergovernmental Relations Series No. 3.) Published: August 28, 1952. Price: \$3.50. xii plus 200 pages. 13 illustrations. Paper. 8½ x 11. Planographed. Edition: 500.
- Bibliography of the Sequence Novel.* Elizabeth Kerr. Published: August 30, 1950. Price: \$10.00. vi plus 126 pages. Paper (hard-bound with cloth back). 8½ x 11. Planographed. Edition: 500.
- Your Own Story.* Marion L. Faegre. (9th printing.) Issued: August 31, 1950. Price: 50 cents. 52 pages. Paper. 5¼ x 7. Edition: 27,575.
- Higher Education in Minnesota.* Edited by Ruth E. Eckert, Robert J. Keller, and John E. Dobbin. Minnesota Commission on Higher Education. Published: September 8, 1950. Price: \$4.00. xvi plus 419 pages. Cloth. 6 x 9. Edition: 2,000.
- The Critic's Notebook.* Edited by R. W. Stallman. Published: September 8, 1950. Price: trade, \$4.50; text \$3.40. xv plus 303 pages. Cloth. 5½ x 8½. Edition: 3,000.
- Handbook for Volunteers in Mental Hospitals.* Ida J. Davies. Published: September 14, 1950. Price: quantity prices only. viii plus 40 pages. 7 zincs. Paper. 5½ x 8½. Edition: 7,500.
- The American Writer and the European Tradition.* Edited by Margaret Denny and William H. Gilman. Published: September 15, 1950. Price: \$2.75. 208 pages. Cloth. 5½ x 8½. Edition: 2,000.
- John Dryden, A List of Critical Studies Published from 1895 to 1948.* Samuel H. Monk. Published: September 20, 1950. Price: \$1.00. vi plus 52 pages. Paper. 6 x 9. Edition: 1000.
- Western Stock Ranching.* Mont H. Saunderson. Published: September 20, 1950. Price: \$5.00. xiii plus 247 pages. Cloth. 6 x 9. Edition: 3,000.
- Sculpture in Wood.* John Rood. Published: September 25, 1950. Price: \$5.00. xii plus 179 pages. 133 plates, plus frontispiece. Cloth. 7¼ x 10. Edition: 3,000.
- A Study of Some Small Mammal Populations at Cedar Creek Forest, Anoka County, Minnesota.* Harvey L. Gunderson. Issued: September 27, 1950. Distributed by the Minnesota Museum of Natural History. vii plus 49 pages. 20 illustrations. Paper. 6 x 9. Edition: 500.
- The Biology of Human Starvation.* Ancel Keys, Josef Brozek, Austin Henschel, Olaf Mickelsen, and Henry Longstreet Taylor. Published: October 2, 1950. Price: \$24.00 for two-volume set. xxxii plus vii plus 1,385 pages. 158 zincs and halftones. Cloth. 7 x 10. Edition: 3,000 sets.
- The Welfare State: Menace or Millennium?* Edited by John G. Darley. Issued: October 6, 1950. Distributed by the Social Science Research Center of the Graduate School. vi plus 58 pages. Paper. 6 x 9. Edition: 2,000.
- Sir Thomas Browne, A Study in Religious Philosophy.* William P. Dunn. Published: October 11, 1950. Price: \$3.00. viii plus 182 pages, frontispiece. Cloth. 5½ x 8½. Edition: 2,000.
- Fundamentals of World Organization.* Werner Levi. Published: October 13, 1950. Price: \$3.00. ix plus 233 pages. Cloth. 5½ x 8½. Edition: 2,000.
- Minnesota Manpower Mobilities.* Herbert G. Heneman, Jr., Harland Fox, and Dale Yoder. (Industrial Relations Center Bulletin No. 10.) Published: October 30, 1950. Price: \$1.00. iv plus 56 pages. 2 zincs. Paper. 6 x 9. Edition: 3,000.
- The New World of Southeast Asia.* Lennox A. Mills and Associates. (2nd printing.) Issued: November 6, 1950. Price: \$5.00. ix plus 450 pages. 1 map. Cloth. 6 x 9. Edition: 3,000.
- Rural Cuba.* Lowry Nelson. Published: November 15, 1950. Price: \$3.50. x plus 286 pages. 10 zincs. Cloth. 6 x 9. Edition: 1,000.
- The Development of Reasoning in Children with Normal and Defective Hearing.* Mildred C. Templin. (Child Welfare Monograph Series No. 24.) Published: November 29, 1950. Price: \$3.50. xii plus 143 pages. 13 figures. Cloth. 6 x 9. Edition: 1,000.
- A Pioneer in Northwest America, 1841-1858: The Memoirs of Gustaf Unonius.* Volume 1. Translated by Jonas Oscar Backlund. Edited by Nils William Olsson. Published: December 1, 1950. Price: \$6.00. xii plus 419 pages. 4 pages halftones. Cloth. 6 x 9. Edition: 2,000 (1,000 to Swedish Pioneer Historical Society).
- Trends in Student Personnel Work.* Edited by E. G. Williamson. (2nd printing.) Issued: December 4, 1950. Price: \$5.00. x plus 418 pages. 7 zincs. Cloth. 6 x 9. Edition: 2,012.
- A Modern Ukrainian Grammar.* George Luckyj and Jaroslav B. Rudnyckyj. (2nd printing.) Issued: December 15, 1950. Price: \$2.50. iv plus 186 pages. Paper. 8½ x 11. Edition: 1,009.
- Industrial Relations Glossary.* The Research Staff of the Industrial Relations Center. (Industrial Relations Center Bulletin No. 6.) (2nd printing.) Issued January 11, 1951. Price: 75 cents. 28 pages. Paper. 6 x 9. Edition: 2,220.
- Grouping and Promotion in the Elementary School.* Walter W. Cook. (Individualization of Instruction Series No. 2.) (4th printing.) Issued: January 30, 1951. Price: \$1.00. ix plus 65 pages. Paper. 5½ x 8½. Edition: 1,573.

Magna Carta: Its Role in the Making of the English Constitution, 1300-1629. Faith Thompson. (2nd printing.) Issued: March 9, 1951. Price: \$6.50. x plus 410 pages. 6 illustrations. Cloth. 6 x 9. Edition: 995.

Johnsonian Studies, 1887-1950: A Survey and Bibliography. James L. Clifford. Published: March 22, 1951. Price: trade cloth edition, \$3.00; paper text edition, \$2.00. xii plus 140 pages. 6 x 9. Edition: 1,200 plus 300 in sheets.

Improve Your Reading. Frances O. Triggs. (8th printing.) Issued: March 28, 1951. Price: \$1.00. vi plus 133 pages. Paper. 6 x 9. Edition: 5,000.

An Atlas for the Clinical Use of the MMPI. Starke R. Hathaway and Paul E. Meehl. Published: April 2, 1951. Price: \$9.75. 8 plus xlv plus 799 pages. Cloth 6½ x 10½. Edition: 3,000.

Hypertension: A Symposium. Edited by E. T. Bell, M.D. Published: April 11, 1951. Price: \$7.50. xii plus 573 pages. 83 tables, 21 halftones, 98 zincs. Cloth. 6 x 9. Edition: 4,000.

Interracial Housing: A Psychological Evaluation of a Social Experiment. Morton Deutsch and Mary Evans Collins. Published: April 25, 1951. xvi plus 173 pages. Cloth. 6 x 9. Edition: 1,500.

The Political Career of Floyd B. Olson. George Mayer. Published: April 30, 1951. Price: \$5.00. viii plus 329 pages. 26 halftones, 10 zincs. Cloth. 5½ x 8½. Edition: 3,000.

General Education in Transition: A Look Ahead. Edited by Horace T. Morse. Published: May 2, 1951. Price: \$3.50. ix plus 310 pages. 2 zincs. Cloth. 6 x 9. Edition: 1,000.

Bibliography of Minnesota Geology. Theodora G. Melone and Leonard W. Weis. (Geological and Natural History Survey of Minnesota Bulletin No. 34.) Published: May 17, 1951. Price: \$1.00. xii plus 124 pages. Paper. 6 x 9. Edition: 1,200.

The Integument of Arthropods. A. Glenn Richards. Published: June 1, 1951. Price: \$6.00. xvi plus 411 pages. 65 illustrations. Cloth. 6 x 9. Edition: 3,000.

The University of Minnesota, 1851-1951. James Gray. Published: June 6, 1951. Price: \$3.75. xviii plus 610 pages. 135 illustrations. Cloth. 6 x 9. Edition: 10,000 (5,000 bound).

Annual Report of the Hormel Institute of the University of Minnesota, 1949-50. Issued: June 14, 1951. Distributed by the Hormel Institute. 80 pages. Paper. 6 x 9. Edition: 1,250.

Sculpture in Wood. John Rood. (2nd printing.) Issued: July 2, 1951. Price: \$5.00. xii plus 179 pages. 133 plates, plus frontispiece. Cloth. 7¼ x 10. Edition: 2,000.

Understanding Ourselves. Marion L. Faegre. (9th printing.) Issued: July 9, 1951. Price: 50 cents. 44 pages. Paper. 5 x 7. Edition: 20,000.

Your Own Story. Marion L. Faegre. (10th printing.) (For the Ohio State Department of Health.) Issued: July 28, 1951. 52 pages. Paper. 5¼ x 7. Edition: 30,000.

Your Own Story. Marion L. Faegre. (11th printing.) Issued: July 19, 1951. Price: 50 cents. 52 pages. Paper. 5¼ x 7. Edition: 37,400.

The Use of Books and Libraries. Harold Russell, R. H. Shove, Blanche Moen. (7th edition.) Publication: August 15, 1951. Price: \$1.50. vi plus 91 pages. 6 zincs.

Triple Audit of Industrial Relations. Dale Yoder, Herbert Heneman, Jr., Earl F. Cheit. (Industrial Relations Center Bulletin No. 11.) Published: September 15, 1951. Price: \$1.00. viii plus 84 pages. Paper. 6 x 9. Edition: 3,600.

An Estimate of Sinclair Lewis. Frank Buckley. (An Occasional Bulletin of the Friends of the University Library, Volume 1, Number 5.) Issued: September 18, 1951. 4 pages. Paper. 9 x 12. Edition: 800.

The Molds and Man: An Introduction to the Fungi. Clyde M. Christensen. Published: October 3, 1951. Price: trade, \$4.00; text, \$3.00. viii plus 244 pages. 1 halftone, 8 zincs. Cloth. 5½ x 8½. Edition: 5,000.

Concepts and Programs of Counseling. Edited by Ralph F. Berdie. (Minnesota Studies in Student Personnel Work No. 1.) Published: October 15, 1951. Price: \$1.75. viii plus 82 pages. 2 illustrations. Paper. 6 x 9. Edition: 1,000.

Opera for the People. Herbert Graf. Published: October 18, 1951. Price: \$5.00. xiii plus 289 pages. 104 illustrations. Cloth. 6 x 9. Edition: 3,000.

On Good Ground: The Story of the Sisters of Saint Joseph in St. Paul. Sister Helen Angela Hurley. Published: November 3, 1951. Price: \$3.75. xvi plus 312 pages. 16 halftones. Cloth. 5½ x 8½. Edition: 3,000.

Rural Cuba. Lowry Nelson. (2nd printing.) Issued: November 14, 1951. Price: \$3.50. x plus 286 pages. 10 zincs. Cloth. 6 x 9. Edition: 1,050.

Intergovernmental Relations in Public Health. Laurence Wyatt. (Intergovernmental Relations Series No. 4.) Published: November 23, 1951. Price: \$3.50. ix plus 212 pages. Paper. 8½ x 11. Edition: 500.

Fundamentals of World Organization. Werner Levi. (2nd printing.) Issued: November 27, 1951. Price: \$3.00. ix plus 233 pages. Cloth. 5½ x 8½. Edition: 1,017.

Woman at Work: The Autobiography of Mary Anderson. Mary Anderson and Mary N. Winslow. Published: November 30, 1951. Price: \$3.50. xii plus 266 pages. 21 halftones. Cloth. 5½ x 8½. Edition: 3,000.

Your Own Story. Marion L. Faegre. (12th printing.) Issued: December 6, 1951. Price: 50 cents. 52 pages. Paper. 5¼ x 7. Edition: 37,680.

Labor-Management Relations on the Mississippi Waterway System. John G. Turnbull. (Industrial Relations Center Bulletin No. 12.) Published: December 18, 1951. Price: \$1.00. iv plus 53 pages. Paper. 6 x 9. Edition: 2,500.

Group Treatment in Psychotherapy. Robert G. Hinckley and Lydia Hermann. Published: December 27, 1951. Price: \$3.00. xiv plus 136 pages. Cloth. 6 x 9. Edition: 6,500 (3,500 for Basic Book Club).

A Study of the Graduates of the University of Minnesota School of Nursing. Faculty of the School of Nursing. Issued: January 18, 1952. Distributed by the School of Nursing. iii plus 26 pages. Paper. 6 x 9. Edition: 1,518.

Minnesota Rural Nursing Programs for Students in Nursing. Faculty of the School of Nursing. Issued: January 25, 1952. Distributed by the School of Nursing. 35 pages. Paper. 6 x 9. Edition: 1,023.

The Common Loon in Minnesota. Sigurd T. Olson and William H. Marshall. Issued: January 9, 1952. Distributed by the Minnesota Museum of Natural History. vi plus 77 pages. 20 illustrations. Paper. 6 x 9. Edition: 3,000 (2,000 for Quetico Superior Committee).

The Zoology of Tapeworms. R. A. Wardle and J. A. McLeod. Published for the University of Manitoba. Published: February 1, 1952. Price: \$12.50. (\$10.00 export price). xxiv plus 780 pages. 419 illustrations. Cloth. 6½ x 9¼. Edition: 2,000.

On the Economic Theory of Socialism. Oskar Lange and Fred M. Taylor. Edited by Benjamin E. Lippincott. (3rd printing.) Issued: February 1, 1952. Price: \$2.00. viii plus 143 pages. Cloth. 5 x 7¾. Edition: 2,000.

Annual Report of the Hormel Institute of the University of Minnesota, 1950-51. Issued: February 6, 1952. Distributed by the Hormel Institute. 83 pages. Paper. 6 x 9. Edition: 1,250.

The Dight Institute of the University of Minnesota. (Bulletin No. 7, 1951.) Issued: February 7, 1952. Distributed by the Dight Institute. 17 pages. 1 illustration. Paper. 6 x 9. Edition: 2,500.

Union Solidarity: The Internal Cohesion of a Labor Union. Arnold Rose. Published: March 1, 1952. Price: \$3.00. xx plus 209 pages. Cloth. 5½ x 8½. Edition: 2,000.

The Social Sciences at Mid-Century: Essays in Honor of Guy Stanton Ford. Issued: March 17, 1952. Distributed by the Social Science Research Center of the Graduate School. x plus 110 pages. Paper. 6 x 9. Edition: 1,000.

The Individual and Liberal Education: Essays in Honor of John Black Johnston. Issued: March 17, 1952. Distributed by the Social Science Research Center of the Graduate School. x plus 102 pages. Paper. 6 x 9. Edition: 1,000.

The Lakes of Minnesota, Their Origin and Classification. James H. Zumberge. (Geological and Natural History Survey of Minnesota Bulletin No. 35.) Published: March 20, 1952. Price: \$1.00. xiv plus 99 pages. 48 illustrations. Paper. 6½ x 9¼. Edition: 1,200.

The Unending Journey. Elizabeth Wallace. Published: April 30, 1952. Price: \$3.50. viii plus 286 pages. 10 halftones. Cloth. 5½ x 8½. Edition: 1,500.

Marsden Hartley. Elizabeth McCausland. Published: May 5, 1952. Price: \$2.50. 96 pages. 43 halftones. Paper. 7½ x 10. Edition: 1,000.

A Catalogue of the Chinese Bronzes in the Alfred F. Pillsbury Collection. Bernhard Karlgren. Published: May 12, 1952. Price: \$25.00. xviii plus 230 pages. 107 halftones. Cloth. 9½ x 12¼. Edition: 500.

Adapting Instruction in Reading to Individual Differences. Guy L. Bond and Bertha Handlan. (Individualization of Instruction Series No. 35.) (3rd printing.) Issued: May 27, 1952. Price: \$1.50. viii plus 82 pages, 2 zincs. Paper. 6 x 9. Edition: 2,024.

The Effectiveness of the High School Program in Home Economics: A Report of a Five-Year Study of Twenty Minnesota Schools. Clara Brown Army. Published: June 16, 1952. Price: \$4.75. xvii plus 319 pages. 29 figures. Cloth. 6 x 9. Edition: 2,000.

A Guidebook to the Minnesota Museum of Natural History at the University of Minnesota. Issued: June 16, 1952. Distributed by the Minnesota Museum of Natural History. 32 pages. 36 illustrations. Paper. 6 x 9. Edition: 10,000.

Illustrative Learning Experiences: University High School in Action. Edited by Emma Birkmaier. (Modern School Practices Series No. 2.) Published: June 20, 1952. Price: \$2.00. 108 pages. Paper. 6 x 9. Edition: 2,000.

The Life and Works of the Troubadour Raimbaut d'Orange. Walter T. Pattison. Published: June 30, 1952. Price: \$10.00. xiv plus 224 pages. 2 pages of illustrations. Paper. 8½ x 11. Edition: 500.

TESTS REPRINTED

The Hunt-Minnesota Test for Organic Brain Damage. Record Sheets. Howard F. Hunt. 5,000 sheets, August 30, 1951.

The Minnesota Reading Examination for College Students. Form A. Melvin E. Haggerty and Alvin C. Eurich. 24,973 tests, September 19, 1951.

Minnesota Check List for Food Preparation and Serving. Clara M. Brown. 5,000 tests, October 10, 1951.

Rating Scale for Personal Qualities and Abilities. Clara M. Brown. 10,200 tests, December 14, 1951.

The Hunt-Minnesota Test for Organic Brain Damage. Record Sheets. Howard F. Hunt. 10,000 sheets, May 2, 1952.

TRANSLATIONS ARRANGED FOR

Group Treatment in Psychotherapy, by Robert G. Hinckley and Lydia Hermann. German translation by Rascher Verlag Zurich, Zurich, Switzerland.

The Integument of Arthropods, by A. Glenn Richards. Japanese translation by Dr. Toshio Ito and Dr. Z. Kuwana of the Sericultural Experiment Station, Tokyo.

The Negro's Morale, by Arnold Rose. Hindi, Urdu, Punjabi, Gujerati, Marathi, Tamil, Telegu, Malayalam, Kannada, Bengali (all Indian languages), Overseas Information Centers, Department of State.

Group Work with Children, by Gisela Konopka. German translation by Pädagogischer Verlag Berthold Schulz.

On the Economic Theory of Socialism, by Oskar Lange and Fred M. Taylor. Japanese translation by Shakai Shiso Kenyukai.

Roentgen Studies of the Lungs and Heart, by Nils Westermark (three chapters). *Sociedad Radiologica Panamena,* Panama.

The Doctors Mayo, by Helen Clapesattle. Arabic, Bengali, Burmese, Chinese, Dutch, Greek, Gujerati, Hebrew, Kanarese, Italian, Malay, Marathi, Persian, Portuguese, Serbo-Croatian, Thai, Turkish, Urdu, by Overseas Information Centers, Department of State.

—MARGARET S. HARDING, director.

MINNESOTA MUSEUM OF NATURAL HISTORY

Exhibits—A major exhibit showing a hunting bobcat was added to the Hardwood Forest Hall in August, 1951. This was financed by a gift from Mr. John Bye of Minneapolis. The setting for this was a St. Croix River scene

painted by the nationally known outdoor artist Francis Lee Jaques. A smaller display of the striped ground squirrel, locally known as the "Minnesota Gopher," was completed in April, 1952, in the Prairie Hall and a similar-sized exhibit of the snowshoe hare in white winter pelage was opened in the Coniferous Forest Hall in May, 1952. Both the latter exhibits were built with Museum funds. During the biennium, 15 temporary exhibits, on display for periods up to a few months, have been installed in the alcove off the Main Lobby.

Attendance—Many thousands of people attend meetings not connected with Museum activities in the Museum auditorium. This report includes only those attending Museum sponsored lectures in the auditorium or visiting the Museum exhibit corridors. The total biennial attendance was 107,510—53,731 for 1950-51 and 53,779 for 1951-52. During 1950-51, 332 organized groups, principally school groups, totaling 13,518, toured the exhibit halls under the supervision of Museum guides; in 1951-52, 320 such groups, totaling 14,947, were conducted, making a biennial total of 652 groups aggregating 28,465 pupils.

Research—Dr. Dwain W. Warner, curator of birds, has nearly completed his work on the book, *Birds of New Caledonia*. In cooperation with graduate student Byron Harrell he has completed a study on the *Ecology, Biology, and Systematics of the Singing Quail of Mexico*; a study, with Dr. Arnold J. Nicholson, *Rodents of New Caledonia*, is ready for publication; and another study, *Weights, Sex Ratios, and Age Groups of the Coot in Minnesota*, is co-authored by Edwin M. Ingersoll, Assistant Scientist Harvey L. Gunderson is continuing work on the populations and life history of the red-backed mouse at Cedar Creek Forest. In cooperation with Dr. James Beer of the Department of Economic Zoology, Gunderson has nearly completed a bulletin, *Mammals of Minnesota*. The director has continued his bird population studies at Cedar Creek Forest and has ready for publication a paper on *Growth Rates in the Spiny Soft-shelled Turtle*. Six graduate school grants have aided these studies during the biennium.

Lectures—The Museum's Sunday afternoon free public lecture series drew a total attendance during 1950-51 of 14,909; and during 1951-52, 13,131. These totals are included in the paragraph on attendance. Although these programs are remaining popular, the drop in attendance is attributed to lack of seating space. The average attendance at these series was 652 (1949-50 average, 784) while the auditorium seats but 490. Second showings of numerous programs have been necessary for several years, but the inconvenience to patrons forced to wait for second showings is beginning to show up in reduced total attendance. There is little doubt but that a larger auditorium combined with a slight increase in our present meager publicity could greatly increase the present attendance.

During the 1950-52 biennium, staff members have given 257 lectures outside the Museum with total attendance of 34,400, an average of 134 per lecture. During both years the director participated in the National Audubon Society's national circuit of illustrated natural history programs. In 1950-51, 23 lectures were given to 8,290 people, largely in Florida. In 1951-52, 13 lectures were given to 9,900 persons in the Upper Midwest. In addition to regular lectures, staff members made six television appearances on various programs.

Cooperation—The Museum staff has cooperated in numerous ways with other institutions in furthering work in natural history education. Donald K. Lewis, Museum audio-visual adviser, has spent the summers of 1950 and 1951 acting as park naturalist at Itasca State Park for the Minnesota Division of State Parks. Additional service rendered the Division of State Parks includes the establishing by Museum staff members of self-guiding nature trails in seven other state parks widely scattered over the state. The Museum director and Assistant Scientist H. L. Gunderson have continued their respective courses, "Birds of Minnesota" and "Wild Game of Minnesota," in the curriculum of the General Extension Division. A large, two-panel exhibit on "Soil Conservation," after serving as a temporary display in the Museum, was donated to the Agricultural Extension Service as a traveling exhibit to augment their work in soil conservation. Photographic assistance was given to the Minnesota Conservation Department, Division of Game and Fish, in completing a film on trout.

Gifts—Regent James Ford Bell has continued his monthly contributions of \$75, totaling \$1,800 for the biennium, for incidental Museum expenses. Mr. and Mrs. Joseph Paper of St. Paul donated two valuable sets of Bausch and Lomb binoculars for use by University ornithology class members. Mrs. Frank Warren of Minneapolis gave a large moose head for exhibit in the Itasca State Park Museum. The Museum Library received 5 books, while the Museum's scientific collections were increased by gifts from various individuals as follows: mammals, 93; birds, 5; bird eggs, 550; reptiles, 7; amphibians, 10; and a very well preserved skull of a prehistoric bison.

Field Work—Dr. D. W. Warner spent the month of December, 1951, collecting specimens and data on distribution and ecological relationships in certain areas in Mexico. H. L. Gunderson, assisted by Franklin Willis, made two collecting trips in the summer of 1950 and three in 1951 investigating the distribution of mammals in Minnesota. H. L. Gunderson and the director spent several days in January, 1952, at Camp Ripley and a week in May, 1952, in the Ely area photographing northern wildlife. The director made a number of short trips within the state photographing scenes for the new 16 mm. film on "Marsh Values." Several days' excavation work in July, 1950, by 2 staff members along a sewer ditch in north Minneapolis produced a nearly complete skeleton of a rare prehistoric bison.

Photography—Twenty-three hundred feet of 16 mm. color film were added to the Museum's movie film library and 332 2 x 2 Kodachromes to the slide series. During 1950, an 800-foot color sound film "Duck Hunters' Dilemma" was completed with the assistance of the Audio-Visual Education Service. Twenty copies of the film have been acquired by other institutions interested in conservation education. Script writing and part of the photography on another color sound reel pointing out various values to be considered in dealing with marsh drainage have been completed.

Meetings—The Museum was host to the 68th annual meeting of the American Ornithologists' Union on October 10-13, 1950. The total registration of 270 included members or guests from 26 states, District of Columbia, two Canadian provinces, Puerto Rico, and Cuba. At one of the sessions the commemorative plaque in the Museum lobby was dedicated to the memory of Dr. Thomas Sadler Roberts, former director of the Museum and council member of the AOU from 1899 to 1938. On May 28, 1952, registration and the opening session of the 47th annual meeting of the American Association of Museums was held in the Museum as were two of its sectional meetings later in the week. The meetings were co-sponsored by the museums of Minneapolis and St. Paul. The University of Minnesota was host to the annual meeting of the American Institute of Biological Sciences, September 10-12, 1951. On September 11 the Museum participated in having a conducted tour of the exhibits for the ladies in the morning and an open house for the delegates in the evening.

Publications—The new guidebook to the Museum which appeared in June, 1952, has filled a major need. The Museum Occasional Papers series has been continued with the appearance in September, 1950, of Number 4, *Study of Some Small Mammal Populations at Cedar Creek Forest, Anoka County, Minnesota*, by H. L. Gunderson and in 1952 of Number 5, *The Common Loon in Minnesota*, by Sigurd T. Olson and William H. Marshall. H. L. Gunderson has continued the Museum's quarterly ornithological reports from the Western Great Lakes Region to *Audubon Field Notes* and to the U. S. Fish and Wildlife Service. Dr. D. W. Warner completed his term as Editor of *The Flicker*, Minnesota Ornithologists' Union publication, early in 1952. In addition staff members have published 28 articles in various journals and bulletins.

Loans—Other institutions have borrowed for scientific study 30 specimens of wolves, 9 bobcats, 1 bison skeleton, and 13 birds from the Museum's collections while a number of visiting ornithologists, mammalogists, and herpetologists were given access to the collections for study of the materials. The Museum invites schools, summer camps, state parks, fairs, and other primarily educational institutions to make use of the 160 portable exhibit cases. During the biennium, 1,460 individual loans of cases for several weeks each were made to such organizations.

Future—Although interpreting known facts of science to the people is a major museum function, research to aid in the discovering of new facts is an essential part of a museum's work. It is hoped that the Museum's present rather limited research program built around the nature of animal distribution in this region can be expanded with additional funds expressly budgeted for research uses. Plans are underway for the completion during the coming biennium of the exhibit to occupy the last major space provided in the present Museum building. A number of smaller spaces will accommodate additional exhibits, but consideration must be given soon to the expansion of the Museum building if our series of nationally recognized public exhibits are to be continued. A new Museum auditorium seating about 1,200 could greatly expand the Museum's services to the community.

Plans are under way for the rebuilding of certain spaces in the exhibit corridors to accommodate more temporary displays. Expansion of the Museum's cooperation with the Minnesota Division of State Parks to the extent of establishing branch museums in some of the state parks would constitute a significant state service. Plans are afoot at Itasca State Park to provide a new museum. If additional funds are made available the Museum staff will be given the responsibility of designing and executing a completely new and modern set of displays for this museum building.—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.

Expansion—The conflict in Korea started in June of 1950 and continued throughout this period. The Selective Service Extension Act of 1950 was an important factor during the period covered in this report and it, together with the impetus supplied by the Korean conflict, largely accounted for the present relatively high enrollment. Other factors which contributed to the increase in enrollment were: The cooperation and assistance of faculty advisors and student counselors and group tours when new students are given an orientation on campus activities.

There are some branches which have been nonproductive insofar as the graduation of new officers is concerned. This is particularly true of the Medical, Dental, Signal, Ordnance, and Engineers. Consideration was given to the withdrawal of one or more of the technical services as of June, 1952 but the situation was studied and the Department of the Army decided to continue without change, at least until June 30, 1953. The enrollment of the incoming senior class is low mainly because it is the class which entered the program in the fall of 1949 prior to the outbreak in Korea. The enrollment of the incoming junior class is large by comparison, however, and it represents that class which entered the University in the fall of 1950 immediately following the start of the Korean War. While it is already apparent that the graduating class of 1953 will not measure up to the desired productivity, it is to be hoped that this deficiency will be a minor factor by June, 1954.

Enrollment—Table I gives the ROTC enrollment for the biennium. The tabulation includes the nine different branches of ROTC courses offered at this University.

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.	
1950-51	808	160	246	172	1,386
1951-52	420	539	117	188	1,264

Curriculum—The first year of the Basic Course is common to all branches with the exception of Medical, Dental and Medical Service Corps. The ROTC student begins his second year in the branch he has chosen; the curriculum consists of elementary specialized subjects which relate to that branch.

No change has been made in the Advanced Course during this period. In addition to the specialized subjects taught in connection with each branch, the Advanced Course students also receive instruction in general courses, such as: leadership, psychology, personnel management, command and staff, combat intelligence, methods of instruction, etc.

Faculty—Table II provides data concerning members of the department who served during the biennium.

TABLE II. MEMBERS OF THE DEPARTMENT OF MILITARY SCIENCE AND TACTICS

Name	Grade	Branch	Reported	Relieved
Joseph L. Coleman	Major	QMC	July 17, 1947	Aug. 15, 1950
Robert B. Swatosh	Lt. Col.	Arty	Aug. 19, 1947	Sept. 1, 1951
Edmund S. Olsen	Major	DC	July 17, 1948	Sept. 3, 1950
Leonard P. Zagelow	Major	MSC	Aug. 1, 1948	Sept. 3, 1950
Ralph M. Bitler	Lt. Col.	TC	May 2, 1949	Aug. 31, 1952
Raymond E. Duke	Colonel	MC	May 8, 1949	June 24, 1951
William D. Lemkowitz	Capt.	Ord	June 8, 1949	Sept. 1, 1949
William M. Copley	Lt. Col.	Sig C	Aug. 1, 1949	Oct. 1, 1952
C. H. Schabacker	Colonel	Arty	Aug. 15, 1949	June 12, 1952
Ashton H. Pully	Lt. Col.	Arty	Aug. 26, 1949	
August R. Wood	Lt. Col.	Ord	Sept. 10, 1949	
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	
David J. Cockrill	Capt.	Inf	Sept. 28, 1950	
Robert E. Poll	Capt.	Armor	Sept. 28, 1950	Feb. 24, 1952
John B. Hodapp	1st Lt.	Inf	Sept. 28, 1950	July 1, 1952
Robert E. Lee	Capt.	Arty	Sept. 28, 1950	
William C. Luehrs	Major	MSC	May 15, 1951	
William F. Sheeley	Lt. Col.	MC—USAF	July 2, 1951	
William O. Barton	Capt.	TC	July 25, 1951	
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	
James B. Warburton, Jr.	Capt.	Sig C	Feb. 15, 1952	
Robert T. Connor	Colonel	Arty	June 2, 1952	
John H. McNutt	Major	DC—USAF	June 2, 1952	

ROTC Graduation—One hundred forty-two students were commissioned in the U. S. Army Reserve in June, 1951 and 191 in June, 1952.

Those students who attain high ratings in both their academic and military subjects are designated Distinguished Military Students at the end of their third year in ROTC. The students so designated become eligible for commissions in the Regular Army if they maintain the same high standards during their senior year and graduate as Distinguished Military Graduates. In 1951 there were 43 such students and in 1952 there were 19.

Special Activities—The regular honorary military organizations continued to thrive and a new fraternity was organized during this period.

The new fraternity is Phi Chi Eta which is the National Professional Quartermaster Fraternity. The University of Minnesota Chapter of this fraternity was activated in January, 1951 and any QM student in the ROTC is eligible for membership.

The ROTC was a large factor contributing to the success of the two Red Cross Blood Drives which were conducted in the Armory during the year 1951-52.

The ROTC participated in the Armed Forces Day program in May, 1952 and the favorable appearance of the unit reflected credit on both the military service and the University.

Selected students from the ROTC continued to function as color guards and ushers for various all-University functions, such as convocation and commencement exercises, football games, etc.

Ratings—As a result of the annual inspections conducted by representatives of the Fifth Army, the ROTC unit at this institution received ratings of

"satisfactory" for the years 1951 and 1952. The lack of adequate facilities were the chief deficiencies noted by the inspecting officers.

Recommendations—The facilities available for instruction are definitely inadequate. The variety of technical courses now offered require the use of a large amount of training aids. The inadequacy of space for the proper storage and maintenance of these training aids is a handicap which is becoming more acute each year. The facilities available for drill are particularly inadequate. Consider the total enrollment in the Army ROTC as now approaching 1,500 annually; to this must be added possibly 1,200 for the Air Force and perhaps 400 for the Navy. It becomes immediately apparent that the ROTC has long since outgrown the Armory drill facilities. Every effort has been made by the Athletic Department to make additional space available by using the Field House and Williams Arena when possible. There is a limiting factor involved here, however, in that these facilities must also be used primarily for Physical Education and consequently, they are not always available for ROTC use. All conditions seem to point to the necessity for a new and much larger Armory for all three services as a permanent facility or some additional facilities to be made available as temporary expedients.—ROBERT T. CONNOR, Colonel, Artillery, P.M.S.&T.

DEPARTMENT OF NAVAL SCIENCE

During the biennium 1950-1952, 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.

This biennium observed an increase in the number of students who volunteered and were selected for the "Contract" program. In the fall of 1950, the University of Minnesota enrolled 63 new contract students and in the fall of 1951, 82 new contract students were enrolled. For each year, the enrollment represented 100 per cent of the quota assigned by the Navy Department. It is felt that this increased interest in the Naval ROTC Contract Program was the result of a combination of two factors: the Korean conflict and the efforts of the University as a whole to stimulate interest in the ROTC programs.

During the biennium, the Naval ROTC Unit tendered the following types and numbers of commissions to University of Minnesota graduates:

Ensign, Line, U. S. Navy	34
Ensign, Line, U. S. Naval Reserve	2
Ensign, Supply Corps, U. S. Navy	15
Ensign, Supply Corps, U. S. Naval Reserve	1
Ensign, Medical Service Corps, U. S. Navy	1
Second Lieutenant, U. S. Marine Corps	6
Total	59

—DOYLE M. COFFEE, Captain, U. S. Navy, P.N.S.

DEPARTMENT OF AIR SCIENCE AND TACTICS

Prior to the beginning of hostilities in Korea in the summer of 1950, President Morrill appointed a committee to recommend measures that should be taken to increase enrollment in the ROTC program. The enrollment in the

TABLE I. AIR FORCE ROTC ENROLLMENT BY QUARTERS

Quarter	Basic Course		Advanced Course		Total
	AS I	AS II	AS III	AS IV	
Fall, 1950	331	109	120	38	598
Winter, 1951	272	106	116	40	534
Spring, 1951	313	94	114	42	563
Fall, 1951	615	325	78	94	1,112
Winter, 1952	593	313	76	94	1,076
Spring, 1952	430	321	71	92	914

ROTC at that time was 335. The entire AFROTC program was jeopardized by the lack of student participation. However, the Korean crisis was a turning point for the ROTC inasmuch as enrollment increased by almost 100 per cent. By the fall term of 1950, a total of 800 students registered for the various classes and the enrollment has continued relatively high since that time. Enrollment for the fall quarter 1951 was 1,112.

General—Since the last biennial report, the University of Minnesota made application for independent status of the Duluth Branch, AFROTC, and the satellite unit was given this status on March 1, 1951. This was an important step forward and it has facilitated more effective operation of that unit.

A student joint staff was established which included Army, Navy, and Air Force cadets. The purpose of this organization was to make combined plans for annual military and social activities. This procedure has resulted in marked improvement in the cooperation and coordination of activities between the military departments.

An accelerated ROTC program was inaugurated during the Summer Session, 1951 to permit students taking accelerated college courses the opportunity of finishing their ROTC requirements in phase with their college work. This policy has proved to be beneficial to a number of students and the AFROTC program. The enrollment for the Summer Session 1951 totaled 53 students.

Curriculum—Beginning with the 1951 fall term, two new specialties were offered in the AFROTC program, Flight Operations and General Technical. The Flight Operations option was established to permit advanced ROTC students to specialize in a course of study which would better qualify them for flying training upon completion of their college work. The total enrollment in this option for the year 1951-52 was 26. However, this is proving to be a popular course and enrollment will probably be doubled for 1952-53.

The General Technical option was offered in order to provide a general background course for Institute of Technology students which would better qualify them for active duty assignment regardless of their specialization within the Institute of Technology.

These two courses have been offered in addition to the Communications, and Administration and Logistics courses previously established. The qualifications for admittance to these courses are the academic major of the student plus his desires and interests.

Summer Camp—Because of the Korean emergency, air bases throughout the country were overcrowded during the summer of 1951 and the Air Force was unable to allocate the required space for the ROTC units to conduct their usual summer camps. By the summer of 1952, the Air Force was again able to have summer camps. Sixty-four cadets from this university attended camps at Madison Municipal Airport, Wisconsin; Selfridge Air Force Base, Michigan; Scott Air Force Base, Illinois; and Chanute Air Force Base, Illinois. The purpose of these camps is to provide these future officers with an insight into the operation of Air Force bases and to show them how their training fits into the jobs they will actually be called upon to perform when they enter upon active duty.

Air ROTC Graduates—Each student who successfully completes the Air ROTC course and graduates from the University of Minnesota is commissioned as a Second Lieutenant in the United States Air Force Reserve. Under this commission, the officer may apply for pilot training as an officer or for extended active duty. Although each student has agreed in writing to serve at least two years active duty, actual call-ups are limited by the Air Force budget. Over 90 per cent of those cadets who graduated in 1951 and 1952 were called to active duty with the Air Force as commissioned officers. They are serving in such places as Korea, Japan, Germany, England, Greenland, and Alaska.

Special Activities—During the Winter Quarter, 1951, an Air Force ROTC band was organized. In all, 60 cadets responded to the call for bandmen and a well balanced band was formed. The band was organized for the purpose of playing at various Air Force functions such as the Spring Review, parades, drill, and other University activities.

Also during the winter quarter of 1951, a cadet newspaper, *The Tailspiner*, was initiated. The purpose of this paper was to increase the cadets' interest in their unit and in the Air Force. The first few issues were a long way from being masterpieces of journalistic writing but they did show the spirit and interest of the students and held promise of a bright future for the paper.

Another special activity is the Arnold Air Society. This is a national honorary military organization established to further the mission of the United States Air Force at college and university level by encouraging greater teamwork and cooperation among students enrolled in the Air ROTC program. Meetings are conducted twice each month for the purpose of discussing business and technical matters. A prominent guest speaker is usually present at these meetings to discuss some subject of current interest to the group. Throughout the school year, the Arnold Air Society is called upon to provide whatever assistance is required by the University for general campus functions and activities.

Faculty—With the increased enrollment and the desirability of assignment of a staff comparable to the Army and the Navy ROTC, the AFROTC faculty was almost tripled at the beginning of the fall quarter 1951.

TABLE II. MEMBERS OF THE DEPARTMENT OF AIR SCIENCE AND TACTICS

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	
Henry D. Booher	Major	August 25, 1949	
Paul A. Eisman	Major	August 8, 1951	
Walter H. Grierson	Major	July 5, 1949	
James C. Kraus	Major	November 20, 1948	June 10, 1952
Norman L. Widen	Major	June 11, 1951	
Frank D. Covell	Major	June 10, 1952	
Nelson A. Roeller	Major	July 3, 1952	
Glenn B. Hunt	Major	August 3, 1952	
William P. Brown	Captain	February 10, 1951	
William G. Callow	Captain	September 12, 1951	February 14, 1952
Robert M. Guy	Captain	October 27, 1950	September 17, 1951
Louis C. Jurgensen	Captain	August 16, 1951	
Thomas L. Moffatt	Captain	July 24, 1952	
Kenneth J. Young	Captain	August 3, 1951	
Raymond W. DeBerry	Master Sergeant	September 20, 1950	
William E. Mulfur	Master Sergeant	August 21, 1951	
Ernest L. Piepho	Master Sergeant	July 28, 1951	
Charles M. Sorenson	Master Sergeant	June 10, 1950	
Robert L. Sprague	Master Sergeant	May 5, 1950	November 16, 1951
Hansell Garrett	Technical Sergeant	August 22, 1951	
Rawleigh Hunt	Technical Sergeant	August 10, 1951	
Neal J. Stocklin	Technical Sergeant	March 20, 1952	
Ovid C. Ward	Technical Sergeant	May 9, 1951	
Norman E. Mattson	Staff Sergeant	May 27, 1951	
Orville G. Smith	Staff Sergeant	January 4, 1952	
Eugene J. Giddings	Staff Sergeant	September 6, 1948	April 17, 1951

Air University—On August 1, 1952, all AFROTC units were transferred from the jurisdiction of the Continental Air Command to that of the Air University. The Air University is the Air Force's educational center. It is charged with the responsibility of conducting all educational activities of the Air Force. It is believed that the change from the Continental Air Command to the Air University will greatly improve the type of instruction and the field of study offered by the Air Force ROTC units. All ROTC instructors are now required to attend the Academic Instructors Course given by the Air University; this will undoubtedly improve the quality of instruction in the unit at the University of Minnesota. A new curriculum, to begin in the school year 1953-1954, is now under study at the Air University. Expert civilian educators, as well as military, have been called together to plan this curriculum. It will call for a generalized field of study rather than the specialized areas now being used. It is designed to provide the cadets with a broad background of military knowledge to be supplemented after graduation at Air Force schools of specialization.

Inspection—The rating system employed by the Air Force for inspecting its ROTC units calls for an over-all rating of either satisfactory or unsatis-

factory. For each of the past two years, the Air Force ROTC unit at the University of Minnesota has received a "satisfactory" rating in the annual inspection.

Facilities—The considerable growth of the AFROTC required more space and improved office and classroom facilities. This problem was taken up with Vice President Willey, the military coordinator, during the summer and fall of 1951. Great improvement was made in enlarging the office of the PAS&T, providing a small office for the executive and also an office for the adjutant. Improvements were made in the lighting of these rooms as well as the main office space. In addition, rubber tile flooring was applied to three of the four offices and the areas were redecorated. This greatly improved the appearance and utility of these rooms. During the school year 1951-1952, the University approved a further request to provide redecoration and application of new acoustical ceilings, fluorescent lights, and linoleum flooring in three additional offices and three classrooms on the first floor and a hallway in the Armory. There has been a tremendous improvement in the appearance and general utility of these areas since that time.

The present Armory building does not have sufficient space to provide necessary classrooms for all ROTC classes; and it has been found necessary to conduct some of the classes in the Aeronautical Engineering Building and Temporary South of Folwell. The distance involved and consequent lack of coordination is undesirable. The ultimate solution to these problems is the construction of a new Armory Building which will assure adequate facilities and it is hoped that this will be possible in the near future.

Another difficulty encountered in the AFROTC program has been the lack of suitable drill areas throughout the year. It has been necessary to curtail drill activities during the winter quarter and to double up during the spring quarter. Scheduling of these drill periods must be carefully coordinated with the athletic department and the Army and Navy ROTC.

Recommendations—It is hoped that a new Armory will be constructed in the near future to alleviate the crowded conditions now existing in the military departments of this university. The present period of international tension makes it appear that future enrollment in all three branches of ROTC will continue to be high and that the present Armory building will continue to be unable to meet the needs of the services—KERMIT D. STEVENS, *Colonel, U. S. Air Force, P.A.S.&T.*

DEPARTMENT OF CONCERTS AND LECTURES

University Artists Course—For the past 33 years the University Artists Course has been bringing a parade of outstanding names and foremost attractions to the University of Minnesota campus. This series of concerts was organized to provide the students, faculty, staff members, and the general public with the greatest the world of music has to offer at a price that all could afford. It has provided one of the most popular functions in the life of the University.

Operations of the University Artists Course during the biennium have been most successful. A total of 34,071 people attended the 1950-51 recitals featuring Zino Francescatti, James Melton, Alexander Brailowsky, Solomon, Vienna Boys Choir, Rise Stevens, and Ballet Theatre. In addition, special concerts featuring: "The Hour of Charm," "Ballet Theatre," "St. Olaf Choir," and "Parade of Quartets" attracted 13,488 people to Northrop Memorial Auditorium. Special attention should be called to the concert featuring the "Parade of Quartets." This attraction was sponsored by the Department at the request of a group of local businessmen, members of the Minneapolis Chapter, Society for the Preservation and Encouragement of Barbershop Quartet Singing in America, Inc. They wanted to help raise funds for the purchase of research equipment for the Variety Club Heart Hospital. The net profit of \$2,685.01 made possible the purchase of vitally needed research equipment.

The 1951-52 course, also successful, attracted 32,658 patrons to the seven featured recitals: "The Robert Shaw Chorale," "Sadler's Wells Theatre Ballet," Joseph Szigeti, Aldo Ciccolini, Victoria de los Angeles, Richard Tucker, and Artur Schnabel. Two special performances by the "Sadler's Wells Theatre

Ballet" and a repeat performance of the "Parade of Quartets" drew 14,589 people. The profit of \$5,319.72 on the "Parade of Quartets" was turned over to the Variety Club Heart Hospital.

Metropolitan Opera Company—Since 1945, the University of Minnesota, represented by the Department of Concerts and Lectures, and the Orchestral Association of Minneapolis have co-sponsored the annual appearance of the Metropolitan Opera at Northrop Memorial Auditorium. These performances have become a must—not only of the Twin City opera lovers but of patrons throughout the Upper Midwest. It is interesting to note that opera patrons from fourteen states and Canada attended these presentations last year.

Last winter the Metropolitan Opera Association, the University of Minnesota, and the Minneapolis Orchestral Association, cooperated in presenting the Metropolitan's special "Fledermaus" touring company. Inasmuch as this was an entirely different type of presentation, the Department inaugurated new and successful methods of promotion which resulted in the financial success of the venture. Moreover, the Department was responsible for securing other engagements in this area making that week of "Fledermaus" presentations the most financially successful one of the entire tour. At the same time, opera in its lighter mood attracted many thousands of new patrons throughout this territory.

Special Cultural Projects—Since a cash surplus of \$20,000.00 has been accumulated as a protection against any future opera losses, the net gain on subsequent performances has been divided between the Orchestral Association and the Department of Concerts and Lectures. The Department has earmarked its share for special cultural projects such as Herbert Graf's book on opera production.

Convocations—The Department of Concerts and Lectures handles the scheduling and presentation of the Convocation series on the Minneapolis Campus. These programs cover a variety of fields—music, science, economics, etc. They are presented each Thursday morning during the school year except holidays and during vacation and examination periods. Whenever possible they are broadcast over the University radio station, KUOM. Outstanding attractions of the biennium included James Melton, Colonel Homer Kellems, George Freedly, Mary Hutchinson, Don Cossacks, Charles Laughton, and Bennett Cerf.

Special Lectures—In an effort to further the discussion of specialized topics for smaller and more select audiences, the Department sponsors a special series of lectures. These are presented at the request of departments for the benefit of their students. Though this function of the Department is restricted by a limited budget many worthwhile speakers have appeared. Included have been Peggy Hicks, Douglas Bush, Francis Bull, Capt. Charles Klipstine, Paul Henri Spaak, Walter Piston, Dr. William Moffett, Dr. M. E. Morley, George Markey, Nat Finney, and Elizabeth McCausland.

Summer Session Recreation—The Department of Concerts and Lectures, since 1943, has been responsible for the cultural aspects of the Summer Session recreational program. The funds for this program are made available through the recreation fee included in Summer Session tuition. The intention is to give students without further charge the best in music, lectures, and cultural entertainment. This program has been considerably strengthened and intensified so that in 1951 it presented 3 performances by the Summer Session Symphony Orchestra, featuring guest soloists, Leslie Chabay, Stephen Hero, and Mary Henderson in addition to the following presentations: Sandra Warfield; Walter J. Breckenridge; Bobo; Rhythm Kings; Karl Shapiro; Tatterman Marionettes; Red Gate Players, puppeteers; John Metcalfe; Clair Musser; Robert Leighton; Hedley Hepworth; Rafael Druian; Regina Resnik.

Further innovations during 1952 included the presentation for the first time of a full evening of ballet. Other programs included 3 performances of the Summer Session Orchestra with guest soloists Bessie Mayle, Mary Henderson, and Frances Anderson. Guest conductors included Emerson Buckley and Herman Herz. Other attractions were Emil Lengyel; Roger Blanchard; James Monesmith; Wolfgang Stechow; Etta Moten; and Frederic Vonn.

Community Program Service—The Department of Concerts and Lectures has the responsibility for the Community Program Service, a detailed write-up of which appears in the report of the General Extension Division. This important activity consists of three major divisions: (1) School Assembly Service, (2) Loan Play Library, and (3) Concert and Lecture Service. The latter division consists of organized concerts, lecture series, concert attractions, and summer college courses.

Theatre Touring Service—The Department of Concerts and Lectures, recognizing the high quality of the University Theatre productions and realizing the inability of most moderate sized communities to offer the live theatre, entered into an agreement with the University Theatre whereby they might present their better plays to the communities in Minnesota, Wisconsin, the two Dakotas, Montana, and occasionally Washington, Idaho, and Oregon. Recognizing the financial difficulties involved, the Department has guaranteed sufficiently long tours at sufficiently large weekly incomes to make such productions and presentations possible on the part of the Theatre.

In 1950-51, plays presented were "She Stoops to Conquer" and "Night Must Fall," and in 1951-52, "Papa Is All."

Special State Services—One of the most significant special projects for which the Department of Concerts and Lectures was responsible was the state-wide tour of the Oak Ridge Museum's Atomic Energy Exhibit. This tour was made possible by the financial collaboration of the Minneapolis *Star and Tribune* with manpower and direction provided by the Department of Concerts and Lectures. It resulted in four major showings in the state of Minnesota—5 days in Minneapolis, 2 days in Hibbing, 3 days in Austin, 2 days in Worthington. A total of 40,200 adults and students attended.

Recommendations—Principal among the pressing needs of the Department are: (1) An increase in funds for convocation fees commensurate with the increased honoraria now demanded. Sharply increased interest on the part of the students necessitates bigger-name attractions and speakers. This in turn requires more money than is now available; (2) The special lecture fund is entirely inadequate for a university of this stature. Departmental requests are presently limited to one lecture each year and even then the fees offered must be brought below a respectable minimum; (3) While limited funds have been made available each year for stage house improvements in Northrop Auditorium, they have not solved the need for complete reorganization and rehabilitation of its facilities. The stage house is inadequate in height, depth, storage space, and major lighting facilities. Dressing rooms, which should be kept constantly available for the purposes for which they were intended, are now diverted to unrelated persons and activities.—JAMES S. LOMBARD, *director*.

DEPARTMENT OF UNIVERSITY RELATIONS

Publicity Council—During the biennium, the staff members of the University who have public relations responsibilities to the informational programs at the University, met in the Regents' room in the Administration Building each Tuesday morning.

Attending these weekly conferences 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, Station KUOM, the Photographic Laboratory, and the Audio-Visual Education Service. 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.

President's Committee on Public Relations—This committee, made up of 16 staff members appointed by the president, met each month of both academic years of the biennium for the purpose of "considering problems of a public relations nature" and of "giving special advice to the director of University Relations," who acted as chairman of the group.

Publications—During each of the academic years of 1950-52, 8 issues of *The Minnesotan* were published and sent to the homes of all full-time staff members. This publication, first issued at the beginning of the academic year, 1947-48, serves to keep all staff members informed concerning the activities of the departments and colleges of the University, as well as policy and problems relating to the entire University. In a move to reduce costs, *The Minnesotan* was reduced in the fall of 1951 to a one-color format, and four pages were dropped.

During the same period, eight issues of *Chats* were sent to the home of each parent of a University student.

A mimeographed publication, *As Others See Us*, was initiated during the biennium. It provides voting members of the University Senate with a quarterly sampling of editorial comment from Minnesota newspapers and other publications.

The *University Calendar of Events* was mailed each month to several hundred organizations, firms, and individuals.

The *University 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 when the *Minnesota Daily* is not published.

Staff members in the Department continued to give assistance, as time permitted, to other units of the University in the preparation of special brochures and pamphlets.

The Centennial Celebration—The University celebrated its one hundredth anniversary during the academic year 1951-1952. In the preceding year the Department devoted much time and thought to plans for the Centennial. A special full-color centennial brochure, *University of Minnesota—a Century of Leadership in Education, Research, and Service*, was prepared by the Department. It sold for twenty-five cents a copy.

News Dissemination—The University news services, operating on the Minneapolis, St. Paul, and Duluth campuses, made available by press conferences, news releases, and interviews, to newspapers and radio stations, daily news about the University. Of special interest is the excellent manner in which the editors of newspapers and radio stations over the state cooperated with the news services, with a great deal of favorable editorial comment based on the University's celebration of its centennial.

University Functions—The Department served as the operating and administrative agency for opening convocations, commencements, University of Minnesota Week, Charter Day convocations, Editors' Day, and the president's receptions for graduating classes, as well as for such special events as ground-breaking exercises, dedications of buildings, and special conferences and meetings called for the purpose of presenting Outstanding Achievement Awards to distinguished graduates of the University. Advising on matters of policy in connection with the cost of these functions, is the Senate Committee on University Functions, the chairman of which is the director of university relations.

General—A major responsibility of the Department is that of keeping the entire University conscious of the public relations implications in all matters of University policy and administrative procedure. To this end innumerable conferences have been called. At such conferences, the several yardsticks of evaluation, including those of educational policy, cost, and public acceptability, have been applied wherever indicated.

Throughout the biennium the Department continued to point out at every opportunity the fact that the University is dealing continuously, not with one big public, but rather with a series of smaller publics—each of which demands a somewhat different approach if the University is to maintain good relationships with the community at large.—WILLIAM L. NUNN, *director*.

—MALCOLM M. WILLEY, *vice president*.

Divisions of Business Administration

PHYSICAL PLANT DEPARTMENT

Organization—The biennium 1950-52 has brought extensive changes in the organization of the Physical Plant. The survey proposed in 1949 by the vice president, Business Administration, has borne fruit. The goal of making the Physical Plant a more streamlined, efficient organization has, in part, been accomplished. The survey committee recommended changes in all parts of the Physical Plant Department. Five recommendations were made:

1. The establishment of cost and procedure analysis.
2. The improvement of custodial maintenance.
3. The reorganization of the shops.
4. Revisions to the central organization.
5. Improvements in the procurement, storage, and use of materials.

With these five recommendations as a guide, the Physical Plant Department has been organized into three main divisions with an assistant supervising engineer at the head of each: (1) Custodial Services and Functions Division, (2) Maintenance and Operating Division, and (3) Construction and Contract Division. This clearly defines the responsibility for all phases of work.

The operations have been assigned as follows:

The Custodial Services and Functions Division controls telephone services, provides facilities for University functions, maintains campus grounds, and supplies custodial service to other departments of the University. A custodial superintendent has been appointed to take charge of custodial service in buildings. Under the custodial superintendent are three custodial supervisors and eight senior building caretakers, each responsible for one group of buildings. Work standards have been set, and a training program is now in operation that is showing progress in better quality of custodial service.

The Maintenance and Operating Division is divided into three main sections: the Shops Section, the Plant Operation Section, and the Project Section. The Shops Section is now headed by a shops superintendent who is responsible for scheduling work. The foremen of the various shops report directly to the shops superintendent. The Plant Operation Section, headed by a senior engineer, is responsible for supplying gas, water, electricity, and heat to University buildings. This centers the responsibility for maintaining these services in one man. The Project Section, headed by a principal engineer, is responsible for all engineering work done by University craftsmen. Project engineers in this division design, estimate, and follow through on major jobs. In this way it is possible to watch costs closely. The operation of a preventive maintenance program with regularly scheduled inspections and follow-up for all installations is another major function of this section.

The Construction and Contract Division is responsible for supervision of work done for the University by outside contractors. Specifications may be prepared within the division or done by outside architects. The Construction and Contract Division is divided into three main parts: the Construction Section, the Works Sections, and the Outlying Stations Section. The Construction Section prepares plans or specifications for general construction work to be done by outside contractors. Specialists in this section are able to work closely with contractors and carefully inspect all work being done. The Works Section is responsible for all work involving roads, sidewalks, tunnels, sewers, and other exterior items. The Works Section controls all of this work whether done by outside contractors or by University-paid craftsmen. The Outlying Stations Section, headed by a senior engineer, is responsible for liaison between the Physical Plant Department in Minneapolis and the outlying schools and experimental stations. The senior engineer assigned to this section receives all requests for assistance from the stations. This engineer is responsible for taking action to satisfy the needs of the resident administrators. University policy makes it necessary for resident administrators to request help before any work is done.

Three staff aids are now functioning to help line supervisors do a more efficient job. These are a cost analyst, a supply supervisor, and a Design and Drafting Section.

The cost analyst is charged with keeping up-to-date cost records on every project done by the Physical Plant Department. These cost records show labor, material, and supervision costs for each trade separately. Maintenance costs for each building or unit can be easily computed. Complete financial reports are prepared from these cost records.

The supply supervisor helps reduce costs by scheduling and expediting delivery of materials. The supply supervisor recommends standards for materials and provides for testing. He also controls the salvage or disposal of surplus materials. Utilization of salvage materials is a major factor in reducing the cost of maintenance.

The Design and Drafting Section provides the services of specialists in design and drafting for the project engineers. Designs are worked out for the projects, and final working drawings are made. In this way it is possible for a project engineer to draw on many specialized skills.

Land

During 1950-52, additions were made to the Minneapolis Campus by the purchase of the following properties:

Lots 17 and 18, Barney's Subdivisions of Lot 30, St. Anthony City—13,530 sq. ft.
East 41 ft. and the West 41 feet of the east 82 ft. of Lots 9 and 10, Block 19, St. Anthony City.
West 38 ft. of Lots 1 and 2, Block 19, St. Anthony City.
Parts of Lot 1 and Lot 2, Block 19, St. Anthony City.

Additions were made to the Duluth Campus as follows:

Lots 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 of Block 16 in Willard's Addition to Duluth, together with the northerly half of the alley.

All of Block 10 in the Clover Hill Division of Duluth.

Lots 10 to 16 inclusive of Motor Line Park Division and Lots A, 1, 3, and 5 of Superior View Addition, Second Division.

SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 11 of Township 50, Range 14. (Commonly known as "Rock Hill.")

Lots 1, 2, 3, and 4, Auditor's Plot Number 8 of Farrell's Addition to Duluth.

Part of Outlet C, University Heights Addition to City of Duluth.

Fractional Lots Numbers 187, 189, and 191 in Fractional Block No. 135 in Duluth proper, Second Division.

Fractional Lots Numbers 187, 188, 189, and 191 in Block No. 41 in Duluth proper, Third Division.

Additions were made to the Northwest School and Experiment Station (Crocketon) as follows:

Part of S $\frac{1}{2}$ of NE $\frac{1}{4}$ and SE $\frac{1}{4}$ of Section 24 Township 150 North, Range 47 West.

Lot 4 and part of Lot 3, Section 19, Township 150, Range 46.

An addition was made to the Southeast School and Experiment Station (Waseca) as follows:

Part of Section 18, Township 107, Range 22.

An addition was made to the Fruit Breeding Farm (Excelsior) as follows:

A strip, tract, or parcel of land in the E $\frac{1}{2}$ of SW $\frac{1}{4}$, Section 7, Township 116 North, Range 23 West in Carver County—2.75 acres.

Another addition was the following:

The SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 21, Township 34, Range 23, Isanti County, Minnesota—40 acres.

The Flour Exchange Building, 302-10 Fourth Street South, The Corn Exchange Building, 404 Third Street South, and the Eustis Building, 601 Hennepin Avenue South, all of Minneapolis, together with adjoining land, were sold on a "contract for deed" basis. Under this arrangement the University retains title to these properties until the contract is satisfied.

Land Exchange

An arrangement was made with the Ramsey County Historical Society whereby the University acquired part of the SE $\frac{1}{4}$, Section 17, Township 29, Range 23 consisting of 2.36 acres. In turn, the University transferred to the

Ramsey County Historical Society a part of tract No. 1012 consisting of approximately the same acreage. (St. Paul Campus.)

Sale of Land

Front, or Southwesterly 110 ft. of Lot 5, Block 31, Mill Company's Addition to the Town of St. Anthony Falls.

A strip, tract, or parcel of land in the government Lot 7, Section 8, SW¼ of SW¼ of Section 9, and NW¼ of NW¼ of Section 16, Township 116 North, Range 23 West, Carver County. (Fruit Breeding Farm, Excelsior.)

Buildings and Tunnels

Minneapolis Campus—Contracts were awarded for several buildings and other projects. Brief data concerning each are given below.

Three stories of the Southeast Wing of the Physics Building were erected to provide badly needed space for laboratories, classrooms and offices.

Total cost of structure	\$400,447.64
Source of funds	State appropriations

The Linear Research Laboratory was erected adjacent to the site of the Linear Accelerator Building. It is a two story wood frame building with asbestos cement sheet siding. The available office and laboratory space is utilized by the research staff of the Physics Department.

Total cost of structure	\$79,700.00
Source of funds: State appropriation	\$36,000.00
University sources	\$43,700.00

Work was started on the construction of a four story building for use by the College of Education. The reinforced concrete and brick veneer building will contain the University High School and College of Education offices. A gymnasium will be located in a separate building but connected with a tunnel to the University High School building. The gymnasium building is of steel frame construction.

Total cost of these structures	\$1,837,000.00
Source of funds	State appropriation

Preparation of the site, excavation, and caissons were completed for the Mayo Memorial Center. Contracts were awarded for the fourteen story superstructure which includes a two-level garage and auditorium. Classroom, laboratory, and office space in this building will be used by the University hospitals and the College of Medical Sciences.

Total cost of structure	\$11,905,287.62
(\$725,000.00 of these funds has been set aside for a Medical Research Building.)	

Source of funds:	
State appropriation	\$7,018,640.10
Individual private gifts	1,411,809.73
American Cancer Society	307,962.00
National Heart Institute	243,000.00
National Cancer Institute	879,438.00
Hospital Construction Act	2,000,000.00
Mayo Public Health Funds	350,000.00
Investment Income (State appropriations)	74,803.54
University sources	191,339.99
Service Enterprise Funds	153,293.44

The Minneapolis Campus Heating Plant expansion and redevelopment program was further advanced during this biennium. Contracts were awarded for installation of three boilers with auxiliary plant equipment, piping, and electrical work. Contracts were also awarded for the completion of feed water treatment equipment and piping necessary.

Source of funds:	
State appropriation	\$1,600,000.00
University funds	30,517.67

St. Paul Campus—Contracts were awarded for several buildings and other projects. Brief data on each are given below.

To adequately meet increased heating needs, the heating plant was overhauled and changed. Boilers were relined and retubed and the pulverizers were repaired. Piping system changes and miscellaneous equipment replacements were made as well.

Total cost	\$140,000.00
Source of funds	State appropriation

Contracts were awarded for a three story Library Building. This structure is located between the Botany Building and the Student Union, directly in front of the Powerhouse. The building is of reinforced concrete framework with brick and tile walls.

Total cost of structure	\$713,000.00
Source of funds	State appropriation

The Veterinary Science Building provides classroom and office space as well as laboratories to be used for research and instruction. This building is three stories high and of reinforced concrete construction with brick veneer finish.

Total cost of structure	\$600,000.00
Source of funds	State appropriation

Contracts were awarded for two auxiliary poultry buildings. Funds for these buildings were included in appropriations for the Animal and Poultry Husbandry Building, later renamed Peters Hall.

Total cost of these structures (including Peters Hall)	\$760,359.76
Source of Funds:	
State appropriation	\$724,383.76
University funds	35,976.00

Contracts were awarded for two additional greenhouses. This makes a total of three units in the group north of the machinery and auto garage.

Total cost of these structures	\$90,000.00
Source of funds	State appropriation

Duluth Branch—The construction of a Physical Education Building has been partially completed on the new Duluth Branch Campus. This is a two-story steel frame building with brick veneer finish. This gymnasium will supply much needed student facilities.

Total cost	\$1,602,000.00
Source of funds	State appropriation

Rosemount Research Center—The development of buildings and auxiliary facilities for the Agricultural Experiment Station at the Rosemount Research Center was completed. A dairy barn, a residence for the herdsman, an agriculture office building, and several machinery storage sheds have been constructed. By remodeling existing buildings new construction was kept to a minimum.

Total cost of these structures	\$95,279.00
Source of funds:	
State appropriations	\$75,000.00
Other sources	20,279.00

Crookston—Extensive alterations have been completed on the heating plant at the Northwest School and Experiment Station. Three new boilers were installed and the heating plant building was enlarged. A new water main was installed also to provide an adequate water supply.

Total cost of these alterations	\$251,164.00
Source of funds:	
State appropriation	\$250,000.00
University sources	1,164.00

Morris—Much needed space has been acquired by the construction of a new wing on the Agricultural Hall. This space will be used for Animal and Poultry Husbandry laboratories and offices as well as for an auditorium.

Total cost of structure	\$121,704.00
Source of funds:	
State appropriation	\$120,000.00
University funds	1,704.00

Waseca—The School of Agriculture building is a major acquisition of the Waseca Agricultural Station. This building houses almost a complete experiment station and school under one roof. The three story structure includes facilities for offices, classrooms, shops, laboratories, and has dormitory space for the students.

Total cost of structure	\$1,705,500.00
Source of funds:	
State appropriation	\$1,705,000.00
University sources	500.00

Improvements and Alterations

Minneapolis Campus—The pressbox in Memorial Stadium has been remodeled. Extensive repairs have been made to the structure of the Stadium.

Alterations were made to the Library. These alterations included the installation of new service elevators and making additional room available for offices and classrooms.

Laboratory equipment and special work tables for the School of Chemistry were constructed and installed. A new elevator was installed in the building.

A new tunnel is being constructed to run from Centennial Hall to the South Tower of the Stadium. This completes the east loop of the deep tunnel system.

The Botany Greenhouse has been rehabilitated. The superstructure has been repaired, new lighting installed, and miscellaneous landscaping has been completed.

The heating systems in Wesbrook Hall, Burton Hall, and Pillsbury Hall have been remodeled and modernized. A new modern piping installation has been made to replace the worn out system.

The main steam line in the deep tunnel is being completely rebuilt and new reducing stations installed. This installation is being made to take care of the 200 lb. steam pressure now available from the modernized heating plant. Gas is now used for fuel when available at the Minneapolis Campus Heating Plant.

The brick walls of Williams Arena have been repaired and strengthened.

The old Mechanical Engineering Building has been removed because the building was no longer useable. A new parking lot has been constructed on the site.

A new elevator has been installed in the Administration Building.

Owre Hall has been remodeled to provide better facilities for laboratory work and classroom instruction.

Modern elevators are being installed in University Hospitals to improve facilities for moving patients and supplies. One elevator is now completed and two more are under contract.

New storm sewers and sanitary sewers have been constructed to take care of the additional load due to construction of the College of Education Building.

New steam and electric primary service have been installed for the College of Education Building and the Institute of Child Welfare.

The plumbing system in University Hospitals has been rehabilitated. The old plumbing system had reached the point where a major replacement job was the only economical solution.

The Ticket Lobby of Williams Arena that was damaged by snow has been partly rebuilt. Auxiliary heating devices for melting snow in the gutters are being installed to prevent recurrence of such an accident. Parapet walls also are being braced to withstand greater pressure.

Many sidewalks that had become dangerous have been replaced with new concrete walks.

Fifteenth Avenue has been widened and paved between Pillsbury Drive and Washington Avenue Southeast.

A 4000-volt primary feeder for the Minneapolis Campus has been installed. This primary feeder is connected into transformer vaults in the Physics Building and University Hospitals.

An incinerator has been installed at the heating plant to provide adequate disposal for burnable garbage and trash.

A storage and salvage yard is now in operation located at 29th Street and Como Avenue Southeast. This yard is securely fenced and storage buildings are available. Useable materials from repair and alteration jobs are examined and cleaned or overhauled at this yard.

Electrical and plumbing service trucks have been purchased and equipped to take care of minor work on the Minneapolis Campus.

A great increase in off-street parking facilities has been made during the biennium.

St. Paul Campus—A new well and water storage tank have been installed to meet increased requirements.

A new heating tunnel has been installed from the North Agronomy Tower to the Corn Seed Stocks Building. This is needed to replace the old tunnel in which the servicing of piping was impossible.

A new 4000-volt primary electric feeder system is being installed to serve the needs of the entire campus. This has become necessary to take care of increased needs and to replace obsolete equipment.

Wooden window sash that had rotted away in the Agricultural Engineering Shops Building have been replaced.

Duluth Branch—Campus roads and sidewalks have been resurfaced and redesigned.

The Administration Building has been remodeled. The heating system has been modernized and the toilet rooms repaired and enlarged.

A greenhouse located on property acquired by the University has been moved to a location near the Science Building.

New storm and sanitary sewers have been installed to take care of the additional load.

A new underground electric feeder system has been installed.

West Central School and Station (Morris)—The damage caused by the fire that burned the dairy barn roof has been completely repaired. It was necessary to install a complete new roof. An addition to the dairy barn was constructed to house a feed grinding unit.

Toilet facilities in the old Agriculture Hall have been completely remodeled.

Northwest School and Station (Crookston)—The heating system in the greenhouse has been replaced with a modern system.

The rehabilitation of the water main system started in the 1948-50 biennium has been completed.

An addition to the boiler house has been constructed. Three new boilers have been installed. These boilers are of 7,500 lbs. per hr. capacity and were installed with all accessories such as pumps, water softeners, piping, etc.

Southeast School and Experiment Station (Waseca)—Storm sewers, sanitary sewers, firefighting facilities, and telephone service have been installed at Waseca. These improvements are necessary to satisfy the requirements of the new Agriculture Building there.

The superintendent's residence has been remodeled.

A new electric service system has been installed to supply power needs for the campus.

North Central School and Experiment Station (Grand Rapids)—Major additions were made to the water main system and sidewalks have been added.

Electric power service has been extended in many directions including service to the farm.

Castle Danger Experimental Farm—Facilities for the experimental farm have been developed. Four house trailers have been moved from University Village to Castle Danger. These house trailers will be used as housing for personnel conducting experimental work. A cottage for use by the director of the station has been reconditioned.—Roy V. Lund, *supervising engineer*.

OFFICE OF CIVIL SERVICE PERSONNEL

Introduction—Severe labor shortages, spiralling wages, and cost of living, characterized this biennium. The effect on the University personnel program was far reaching.

Instead of expanding services, the University was forced to intensify recruiting, classification, and training to meet this challenge.

University departments, for the most part, were patient and understanding. It was most discouraging to see experienced, well qualified persons leave their University jobs and be replaced by the less qualified and inexperienced. Eventually the storm was weathered, but not without some disruption to University services.

It would be unrealistic not to admit that the personnel program suffered as a consequence. Attention had to be centered on daily problems instead of on refining and expanding the program. However, the experience has been profitable and the Office is better prepared to meet more of the same kind of problems which it will surely face in the future.

Changes in Civil Service Rules—Beginning with the school year, 1951, academic and Civil Service employees registering for graduate work no longer were exempt from tuition.

In order to incorporate this change, Rules 13.32 through 13.331 or Graduate School Privileges and Other Registration were eliminated and new rules approved.

The Regents took no action on a proposed change in Grievance Procedure which would have permitted employees to appeal to the Civil Service Committee.

Position Classification Plan—There are now 497 classes of work in the Position Classification Plan, covering approximately 4,200 Civil Service positions.

The administration and maintenance of this plan consists mainly of: (1) Classification of new positions (2) Review and evaluation of reclassification requests (3) Classification appeals (4) Review of requisitions on vacant positions (5) Establishment of new classes of work (6) Classification surveys and (7) Revision of class specifications.

Salary Plan—At the start of the biennium it became increasingly apparent that the University and state pay plans needed some major adjustments if they were to keep pace with community pay rates for comparable work.

To find in detail just how far University and state pay rates lagged behind community rates, the University hired Public Administration Service of Chicago to make a wage survey. This survey was started in November, 1950 and completed in January, 1951. One member of the University Personnel Office and two members of the State Personnel Office assisted in this survey.

Wage data were collected from 633 private business establishments covering some 35,394 individual jobs both in the St. Paul and Minneapolis metropolitan areas as well as communities out in the state. After these data were tabulated, they showed that University and State pay ranges would have to be adjusted approximately six steps to be on a competitive footing with community rates. To make this adjustment in keeping with the cost-of-living formula used by the University and State Civil Service, it was proposed to the State Legislature that the amount of consumer-price-index increase required for a cost-of-living adjustment be changed from nine to six percentage points.

After lengthy consideration, the Legislature approved a change to six and one-half percentage points which allowed a five step adjustment. Consequently on July 1, 1951, all University and State Civil Service pay ranges were given a five step cost-of-living increase.

In addition to the general across-the-board increase on July 1, 1951, for the whole University Pay Plan, individual increases in pay range were made for sixty-two classes during the 1950-52 biennium.

Employment—At no time in the last six-year period did the demand for personnel rise as high or the number of qualified job seekers fall as low as in each year of this biennium. A study of the statistics for the postwar period shows that 1948-49 was the best year this department experienced. However, since 1948-49 the trend has been in the opposite direction. An ever narrowing margin between applicants and vacancies has made employment office functions increasingly difficult to perform. While the number of jobs to be filled increased sharply and steadily, the number of applicants for those jobs kept falling off even more rapidly.

In spite of the University's generally favorable employment conditions and liberal employee benefits, our Civil Service staff continues to be fluid. A total of 2,760 employees terminated their University employment in 1950-52, compared with 2,045 in the preceding biennium.

Vacancies for the biennium totalled 4,534, being split almost equally between the two years. This is an increase of 989 (28 per cent) over 1948-50. Nearly 2,000 (43 per cent) of the vacancies for the biennium were in the clerical, administrative, and fiscal service, a 19 per cent increase over the preceding two years. The majority of vacancies in this grouping were in the first level positions of clerk-stenographer, typist, and clerk.

Recruitment was difficult and often fruitless during these years. The invasion of Korea on June 25, 1950, stimulated many lines of activity which succeeded in draining off large groups of people into military service, higher paying defense work, and other related activities. Intensive government recruiting campaigns offering inflated salaries drew many office workers from this area into federal employment. Increased activity in the construction field absorbed both skilled and unskilled labor. These and other factors created an abnormal demand for workers.

As the labor market tightened, further exceptions were made to the University rule prohibiting the employment of relatives. In fact, we actively recruited these people through appeals made to the staff. As in the past, these exceptions were made only for jobs where the labor supply was extremely short, where the applicant was well qualified, and where he would be working in a department other than that in which his relative worked.

Similarly, exceptions were made to the rule that a University employee must be a U. S. citizen. Displaced persons, regular immigrants, and the wives of foreign students made up most of this group.

Continued expansion took place in our applicant testing program. Even though the number of applicants declined, 15 per cent more people were tested than in the preceding two year period (3,854 compared with 3,350) and 12,600 tests were administered as opposed to 11,124 in 1948-50.

Administration of required physical examinations for all regular employees was continued. A larger number of employees took physical examinations during this biennium than in previous years, 1,437 as compared with 1,262 in 1948-50. This resulted from the continued policy of permitting new regular payroll positions to be established on a term basis.

Personnel transactions (the work done by the Department in processing documents effecting employee changes) totalled 28,629. Of this total, 13,739 were Civil Service actions, 9,402 student, and 5,488 academic. These totals represent an increase in both the Civil Service and student actions over the previous biennium.

The combined total of promotions, transfers, reclassifications, and demotions has increased approximately two-thirds over the previous biennium—1,666 as compared with 1,042.

Employee Training—The work of the Training Division began to diversify sufficiently during the biennium to make desirable a written statement of the guiding objectives of the unit.

The Training Division engaged in several major projects during the biennium. Business procedures training for secretaries and key clerical personnel received major emphasis. One member of the staff devoted substantial effort to the installation of Physical Plant Survey recommendations, which

included the building of several training programs within that department. Another important project, conducted at the request of the director of University Bookstores, gave assistance in reorganization and retraining of bookstore personnel.

The third section of the *Manual of Business Procedures*, the Fiscal Section, was edited during the first year of the biennium and published on January 1, 1952. Approximately 400 copies of all three sections of the *Manual of Business Procedures* were in the hands of University department secretaries, key clerical personnel, and department heads, at the end of the biennium.

During the first year of the biennium a course in Business Procedures Training for new secretarial staff was prepared (training guides written, materials and aids developed). During the second year of the biennium this course was given to 3 groups of secretaries and clerks, 48 girls in total.

The policy of offering 20 Regents' Scholarships each quarter or 120 for the biennium was continued. At the Duluth Branch, 6 Regents' Scholarships are offered each year, or 12 for the biennium.

Beginning with the second year of the biennium 1951-52, graduate school privileges no longer carried tuition exemption. This policy applied to members of both the Civil Service and Academic staffs. All now pay resident tuition rates. As a result, although 133 employees took some 285 courses in 1950-51, only 83 employees took 119 courses in 1951-52.

Employee Relations—Communications between this Office and employees have continued to improve. The contacts are no longer confined to the director but occur with staff in all of the divisions within the Personnel Office. Many of these contacts are made directly with employees on their jobs. The number and frequency of these visits gives every indication that communication barriers are at a minimum.

Union Relations—The revised grievance procedure adopted in 1948 continues to be an effective device for handling employee complaints.

The first use of the arbitration procedure by a union occurred in June, 1951. The disagreement started with an action by the University which abolished the watchman classification and installed a new class, roundsman. The union contested this action claiming that the new class of roundsman was a subterfuge and did not involve new duties and responsibilities. The Arbitration Commission decided that the class of roundsman was a new class and that the watchman did not automatically qualify for it. Other unions also brought in grievance matters which were discussed and disposed of to everyone's satisfaction.

The first year of the biennium witnessed intensive negotiations by unions for immediate wage increases. The University's position was that such increases could not be made until July 1, 1951, following legislative action. There was a concerted effort also by a number of unions to change from a civil service rate to a prevailing rate. Although the University successfully resisted these moves, the real problem has not yet been solved. Sooner or later an answer must be found to the problem of paying some year around employees on a prevailing rate, while others are paid the civil service rate.

Civil Service Committee—The University, and more especially this Office, is deeply indebted to the members of the Civil Service Committee for their guidance and assistance during the biennium. This committee, during the entire biennium, consisted of Lloyd Short, *chairman*; Clinton Johnson, Ralph Dowdell, Dale Yoder, and Theodore Fenske. It held 19 meetings during this period and considered many important matters affecting the Civil Service Personnel program.

Looking Forward—Plans are now under way to separate physically the Student Employment office from Civil Service employment. This will permit a more effective job in recruiting, interviewing, and selecting job applicants for both Civil Service and Student Employment.

The *Employee Handbook* and *Civil Service Rules* are being brought up to date and then will be reissued to employees and departments.

In each unit an attempt has been made to critically review procedures and services. This has resulted in short cuts which save time and afford better service to departments. This self-appraisal is continuing.

Despite the increased work load and reduced budget, the Office has been able to increase its services to departments. However, additional funds are necessary to meet adequately the demand for personnel services.

Student Employment Bureau—The accompanying table presents statistics on student employment activities during the biennium.

	Interviews	New		Placements	Earnings	
		Applicants	Vacancies		On Campus	Off Campus
1948-50	37,285	13,237	11,185	8,954	\$6,572,544.15	\$546,142.37
1950-52	33,382	18,228	17,303	11,044	6,110,506.21	842,759.18

In both 1951 and 1952, student employment rates at the University were increased as a result of the changes in the cost-of-living index. This continued the policy of paying students the same hourly wage as full-time employees. Due to this wage increase plus a decrease in campus budgets, more and more students were placed in jobs off the campus.

Through expanded job promotion campaigns including such media as brochures sent to employers listing available students, letters requesting jobs, telephone contacts, improved newspaper advertising, etc., the number of vacancies promoted showed a 54 per cent increase and job placement figures 24 per cent over the previous biennium.

Through the Work Scholarship program, established by the Board of Regents in 1950, approximately 100 entering freshmen were placed. Many felt they could not have entered the University without this special aid. Under this program the student is placed on a school year part-time position with a guarantee of approximately 15 hours or more of work per week at the University.

A manual, giving a relatively detailed account of all procedures of the Student Employment Bureau, has been written during the last fiscal year.—HEDWIN C. ANDERSON, *director*.

SERVICE ENTERPRISES

The close of the biennium marked the retiring, after forty-nine years of service, of Joseph C. Poucher, the director of Service Enterprises since the inception of the Department. He was succeeded by Clinton T. Johnson who had served since 1947 as assistant director.

The years 1950 to 1952 required resourcefulness and careful planning to meet the prevailing conditions of decreasing numbers of students and increasing costs. In this period, as in the past, it has been the policy of Service Enterprises to be engaged in those activities which provide services to students or University departments most efficiently or at lowest cost for equal services.

University-operated Student Housing—Centennial Hall, dormitory for 515 men, was completed and opened for occupancy in the fall of 1950. This dormitory was designed primarily with single accommodations because of the demonstrated preference for singles in experience with our other dormitories. Cost of construction and equipment was around three and a quarter million dollars. With the increased facilities for housing men students afforded by Centennial Hall, it was possible to reduce the occupancy of Pioneer Hall from a maximum of 940, accomplished through double-decking, to the normal of 539. All freshmen dormitory residents were assigned to Pioneer Hall. Dormitory residents through elected representatives planned carefully with the dormitory administration on curtailment of services to minimize price increases. As a result, maid service was reduced to a minimum, and the kitchen and dining room at Pioneer Hall were closed and all residents in the two dormitories took their meals at Centennial Hall. The men's dormitories were used extensively in the summer of 1951 for housing conventions of the National Student Association, American Mathematical Society and Mathematical Association of America, and the American Institute of Biological Sciences.

The two dormitories for men as well as Comstock Hall for upper-class women, Sanford Hall for freshmen and upper-class women, and Winchell Co-operative Cottages for women were occupied to capacity at the beginning of each school year. However, accommodations were available later in each school year as students left through graduation or for other reasons.

In the spring of 1951 a "snack den" was constructed in the Comstock Hall recreation area, where refreshments are sold during limited hours.

The Home Dormitory, which offered housing without meals to 64 men on the St. Paul Campus, was operated as long as a definite need existed, and after spring quarter, 1951, the building was closed. This building, constructed in 1887, has now been razed.

With the decrease in veteran enrollment at the University, the Como Avenue and Grove East Housing Project for married students was able at the close of the biennium to house all applicants in the expansible trailers, quonsets, and barracks. All standard trailers, no longer in demand, were sold.

Most pressing current needs for student housing are apartments for married graduate students and a residence hall for married interns and residents. In addition, it is hoped that the wings to Comstock and Centennial Halls may be constructed soon so that they will be in use when a new enrollment maximum will be reached again within a few years.

Staff Housing—The accompanying table shows statistically the services of of this Bureau in attempting to aid University staff members in their housing problems.

	1950-51	1951-52	Total
Interviews	685	629	1,314
Purchase of homes through complete service of Bureau	2	2	4
Listings—rooms	302	236	538
Listings—rentals	652	686	1,338
Rental accommodations other than University-owned arranged directly through Bureau:			
Families	17	26	43
Couples	44	48	92
Single men and women	43	40	83

Thatcher Hall was maintained throughout the biennium for rentals to University staff. But with the lessening need for short-term accommodations for new staff members, at the close of the biennium Thatcher was returned to its original purpose: graduate student housing.

The five apartments at 501 Washington avenue southeast were administered by the Staff Housing Bureau until the summer of 1951, when this building was razed.

In the fall of 1951 fourteen of the forty-eight units of prefabricated housing allotted to staff were reallocated to foreign students because of the decrease in number of staff members seeking emergency housing.

Eating Facilities—Coffman Memorial Union Food Service was affected materially by the decrease in students and staff, requiring the exercise of utmost ingenuity to operate the facilities with maximum efficiency to insure minimum losses. Shevlin Cafeteria was continued in operation because of its service to the High and Elementary Schools and University students and staff remote from the Union.

Milk and Cream Plant—During 1950-51 extensive equipment installations and replacements were made for homogenizing all milk and cream processed in the plant.

Transportation—By the close of the biennium the University pool of rental cars had grown to five passenger cars, two station wagons, and one panel truck, available on a mileage or daily basis for field trips or other University needs.

Audio-Visual Education Service—In the fall of 1950, administrative responsibility for this Department was assigned to Service Enterprises. The Department provides consultation and services in audio-visual engineering, booking, and production. In the fall of 1950 the production division completed the film "University Profile," produced under the sponsorship of University Relations, to acquaint people of the state with the activities and accomplishments of the University as a feature of its centennial celebration. In the spring of 1951 the production division supplied a crew of six men and equipment, as sub-contractor to a contract between Syracuse University and the U. S. Department of State, for the purpose of producing 16 mm. motion picture films in Iran, Turkey, and adjacent territory for educational and vocational aids to the people of those countries. The original contract was extended

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twice, and the crew is now operating under a new contract which runs until November 15, 1952. During the 1951 football season Minnesota games were televised by the Department through contract with a local sponsor and were shown over a Twin Cities station. At present the Department is working on three films based on three books on counseling written by Dean E. G. Williamson.

Comparative Earnings, Service Enterprises Departments

	1950-51	1951-52
Ada Comstock Hall.....	\$ 241,584.47	\$ 266,580.72
Sanford Hall.....	148,786.23	176,952.78
Pioneer Hall and Centennial Hall.....	630,215.77	739,556.64
Cooperative Cottages (women).....	20,726.34	21,851.79
Home Building Dormitory.....	4,810.43	136.30
Center for Continuation Study.....	17,900.38	34,055.01
Como Avenue and Grove East Housing Project.....	351,318.54	353,778.49
Thatcher Hall.....	25,760.87	27,445.82
501 Washington Ave. S. E. (staff housing).....	3,076.17	115.00
Duluth Cottages (staff housing).....	1,430.00	2,003.90
Coffman Union Food Service.....	531,757.38	482,600.63
Shevlin Hall Cafeteria.....	31,317.64	30,176.41
Cold Storage Plant.....	551,193.68	546,889.46
Milk and Cream Department.....	140,618.95	152,673.34
Stadium Stands.....	63,029.70	83,255.74
Printing Department.....	344,558.00	337,916.00
Mimeograph Department.....	47,031.97	52,157.02
Mimeograph and Bulletins (St. Paul Campus).....	36,133.95	42,819.80
Post Office.....	12,368.11	11,032.42
University Laundry.....	169,693.49	210,491.80
University Garages.....	55,562.87	55,744.42
Transportation.....	11,695.27	12,134.73
Dormitory Dens:		
Pioneer Hall Dens.....	14,495.37	7,496.15
Centennial Hall Dens.....	11,354.63	21,223.18
Sanford Hall Candy Counter.....	5,263.61	6,569.08
Ada Comstock Hall Candy Counter.....	9,286.02	12,001.43
Winchell Cottages Candy Counter.....	524.31	
Locker Rentals.....	6,685.81	5,639.66
Eidsmo Clinic Building.....	800.00	600.00
Audio-Visual Education Service.....	140,609.80	156,912.29
Inter-Campus Trolley.....	21,661.21	20,448.08
Scientific Apparatus Repair Shop.....	29,680.30	37,454.47
Truck Service.....	1,485.63	98.13
Army, Air Corps, and Navy Storeroom.....	53.57	
	\$3,682,530.47	\$3,908,810.67

The above table shows the departments of the University operating under the supervision of Service Enterprises, with comparative gross earnings for both years of the biennium.—CLINTON T. JOHNSON, *director*.

SUMMARY OF CASH GIFTS, 1950-51

Description	Number	Amount	Total
Loan funds			
New.....	2	\$ 1,700.00	
Additions to previous gifts.....	4	70.00	
			\$ 1,770.00
Scholarship funds			
New.....	26	\$ 51,786.78	
Additions to previous gifts.....	53	62,061.71	
			113,848.49
Fellowship funds			
New.....	18	\$ 45,609.00	
Additions to previous gifts.....	38	143,374.72	
			188,983.72
Prizes			
New.....	3	\$ 25,075.00	
Additions to previous gifts.....	22	1,295.00	
			26,370.00
Research funds			
New.....	60	\$586,384.50	
Additions to previous gifts.....	91	643,530.61	
			1,229,915.11
Miscellaneous funds			
New.....	31	\$190,439.23	
Additions to previous gifts.....	50	506,836.24	
			697,275.47
			\$2,258,162.79

CASH GIFTS, 1950-51

Loan Funds—New

Amount		Year Established
\$ 1,500.00	From Zonta Club of Minneapolis for a loan fund in memory of Nellie Gorgas to be available to women students taking graduate work in hospital administration	1950
200.00	For a student loan fund, established in the will of Dean Anne Dudley Blitz, from various donors	1951

\$ 1,700.00

Loan Funds—Additions to Previous Gifts

\$ 50.00	Householders' Student Loan Fund, through the Greater University Fund	1942
10.00	F. D. Lindquist Loan Fund in the School of Business Administration	1924
5.00	General Student Loan Fund from William S. Weeks	1924
5.00	Law Alumni Loan Fund, through the Greater University Fund	1923

\$ 70.00

Scholarship Funds—New

\$ 25,000.00	From John and Mary R. Markle Foundation (\$5,000 a year for five years) for a scholarship award for Dr. Robert A. Good in medical science	1950
5,000.00	From the Estate of Caroline M. Crosby to establish the Class of 1932 Memorial Fund	1950
3,772.62	From the Social Service Council, through the Greater University Fund, to establish a scholarship fund to replace funds formerly supported by the Campus Chest	1950
3,000.00	From John Morse Memorial Foundation for scholarships in the Institute of Technology of \$500 each for three students in their fourth quarter, and again in their fifth quarter, if work is satisfactory	1950
3,000.00	From the Harris Foundation to establish a graduate scholarship for a student or students from the Hebrew University in Israel	1951
2,400.00	From the China Institute of America to provide a fellowship (plus traveling expenses) for Chang-shan Lin in the Division of Entomology and Economic Zoology to be called the China International Foundation Scholarship	1950
2,000.00	From Mrs. Charles S. Wartenbe to establish a scholarship fund in the Law School for Law Library acquisitions	1951
1,000.00	From the Minnesota Garden Flower Society (\$100 annually for a ten-year period) to establish an annual scholarship in memory of Roger S. Mackintosh in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine	1950
799.00	To establish the Austrian Students Scholarship—Special to cover expenses of a special group of Austrian students who will attend the University of Minnesota during the second term of the 1950 Summer Session	1950
	\$797.00 Student Travel Service, Limited	
	2.00 Anonymous	
738.16	From friends of Mrs. Tracy F. Tyler to establish a memorial scholarship of not less than \$100 annually to be known as the Virginia Sheffield Tyler Memorial Scholarship	1950
672.00	From friends of Mrs. Anne Fenlason, through the Greater University Fund, for a scholarship fund in her memory	1950
600.00	From John Cowles Foundation for a graduate scholarship fund to defray living costs of Prakash Chandra Jain, New Delhi, India while undertaking graduate work in journalism	1951
600.00	From the Matinee Musicale of Duluth to provide scholarships of \$100 each for three students in the Department of Music in the Duluth Branch for 1950-52	1950
600.00	From Sears-Roebuck Foundation for scholarships for freshman girls in home economics	1950
400.00	From the National Association of Secondary School Principals, National Education Association, to establish the National Honor Society Scholarship Fund	1950
400.00	From an anonymous donor for a Keystone Scholarship to be awarded within the next ten years to a sophomore or junior student with qualities of civic leadership who is the son of a deceased or disabled veteran of World War II	1951
300.00	From the French Government to provide assistance in the form of a scholarship to outstanding students in French in the 1951 Summer Session	1950
255.00	To establish two scholarships of \$125 each for entering freshman students majoring in the field of physical education	1950
	\$250.00 Women's Physical Education Alumni Association	
	5.00 Anonymous, through the Greater University Fund	
250.00	From the James F. Lincoln Arc Welding Foundation to establish a scholarship for students majoring in agricultural engineering or farm mechanics, in honor of Charles D. Gillard	1950

Amount		Year Established
250.00	From the North Side Pharmacists Club for a scholarship award to outstanding high school graduates who study pharmacy	1950
250.00	From the Hennepin County Tuberculosis Association to establish the Dr. E. S. Mariette Scholarship for students in training relating to and presumably taken in preparation for professional service in the field of tuberculosis control	1950
150.00	From the Minneapolis, St. Paul, and Duluth Chapters of the National Secretaries Association, through the Greater University Fund, to establish a scholarship	1950
100.00	From the Student Section of the Faculty Women's Club to give through University channels a scholarship provided for many years for a woman student	1951
100.00	From the Student Section of the Faculty Women's Club (annually) to establish the annual Anne Dudley Bitz Scholarship Fund for a woman student	1951
100.00	From Alpha Xi Delta Alumni Association (\$50 annually), through the Greater University Fund, to establish an annual scholarship for a worthy foreign woman student	1950
50.00	From Sigma Delta Tau Alumni for a scholarship for women students at the University	1951
\$ 51,786.78		
Scholarship Funds—Additions to Previous Gifts		
\$ 12,436.00	Henry L. Williams Memorial Scholarship, through the Greater University Fund	1949
10,025.00	From the Tozer Foundation, Incorporated	
	\$7,025.00 for a scholarship	1947
	3,000.00 for a graduate scholarship	1949
8,800.00	Iraq Government Scholarship Fund	
	\$6,300.00 (Khalid Tahsin Ali—graduate)	1949
	2,500.00 (Atah Allah Khaleefa—undergraduate)	
6,013.50	From the Sears Roebuck Foundation	
	\$2,500.00 for a scholarship	
	2,388.50 for an agricultural scholarship (college)	1947
	1,125.00 for an agricultural scholarship (schools)	1937
5,000.00	University Bookstores Scholarship	1944
3,000.00	Maurice L Rothschild Scholarship	1947
2,833.00	All-University Scholarship	1945
	\$600.00 Tau Beta Beta, Incorporated	
	566.00 State of Maryland	
	400.00 W. Y. Yve (custody only)	
	312.00 Military Government Association, Japan Chapter (for Dr. Jura Wada)	
	300.00 Watumull Foundation	
	250.00 Quill and Scroll	
	200.00 Women's Club of Ridgewood, New Jersey	
	165.00 Gamble-Skogmo, Incorporated (for Vernon Heath)	
	40.00 Robert P. Sutton, WCCO (for Bernard Blin)	
1,550.00	Department of Surgery Traveling Scholarship	1949
	\$1,350.00 Minnesota Medical Foundation	
	100.00 Dr. Vernon D. E. Smith, through the Minnesota Medical Foundation	
	100.00 Dr. Martin Nordland	
1,400.00	Creative Music Scholarship Fund	1947
	\$1,200.00 C. O. Kalman	
	200.00 Dr. Frederic E. B. Foley	
1,000.00	Douglas Scholarship	1946
900.00	Grace Ellis Ford Fellowship of the Minneapolis College Women's Club	1941
800.00	Appreciation Scholarship Fund from Ben D. Black, through the Greater University Fund	1950
800.00	Faith Thompson Scholarship	1948
750.00	Socony-Vacuum Oil Company Scholarship Fund	1949
635.00	Milling Engineering Scholarship, through the Greater University Fund	1949
600.00	Baruch Blum Scholarship	1946
500.00	All-University Council Scholarship fund from the All-University Congress, through the Greater University Fund	1946
500.00	Minneapolis Gas Light Company Service Scholarship	1948
500.00	Taconite Scholarship Fund from the Dorr Company of New York	1949
455.00	Anna Von Helmholtz-Phelan Scholarship in Creative Writing from Delta Phi Lambda	1949
400.00	RCA Scholarship	1945
300.00	F. H. Peavey and Company—Van Dusen Harrington Company Undergraduate Scholarship	1947
250.00	Presser Foundation Scholarship	1945
200.00	American Society of Civil Engineers Scholarship—Northwestern Section	1946
200.00	Chi Psi Fraternity Scholarship	1946
200.00	Mary Farrell Coffman Scholarship	1945
200.00	John Mars McDonald Memorial Scholarship	1948

DIVISIONS OF BUSINESS ADMINISTRATION

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Amount		Year Established
200.00	University of Minnesota Women's Club of Detroit Scholarship	1949
177.00	Katharine J. Densford Scholarship Fund, through the Greater University Fund	1950
150.00	Advertising Club of Minneapolis Scholarship	1949
150.00	Alpha Zeta Traveling Scholarship	1949
132.21	William A. O'Brien Scholarship	1947
	\$60.00 Alpha Delta Theta Alumni, through the Greater University Fund	
	51.50 Orbs Society	
	20.71 Anonymous, through the Greater University Fund	
100.00	Burpee Award in Horticulture	1946
100.00	Minneapolis Women's Advertising Club Scholarship	1947
100.00	Leora E. Cassidy Scholarship	1944
100.00	Northwest Daily Press Association Scholarship	1935
100.00	Grace C. Nelson Scholarship	1946
100.00	Phi Upsilon Omicron Scholarship	1946
100.00	Sigma Alpha Iota Alumnae Group Scholarship	1947
55.00	Robert V. Cram Memorial Scholarship	1948
50.00	Agricultural Faculty Women's Club Scholarship	1923
50.00	Alpha Zeta Scholarship	1922
50.00	Home Economics Association Scholarship	1924
35.00	Florence Munson Wilson Memorial Scholarship from Dr. H. K. Wilson	1947
25.00	Class of 1916—Bernie Bierman Fund, through the Greater University Fund	1948
23.00	Speech and Hearing Clinic Scholarship	1950
7.00	Minnesota Indian Youth Scholarship, through the Greater University Fund	1949
5.00	Law Faculty Scholarship Fund from William E. MacGregor, through the Greater University Fund	1925
5.00	Lura C. Hutchinson Scholarship	1945

\$ 62,061.71

Fellowship Funds—New

\$ 6,000.00	From the American Cancer Society, Incorporated to establish a senior research fellowship for Thomas Brannon Hubbard	1951
4,450.00	To establish two Midwestern AEC Graduate Fellowships at the University of Minnesota	1950
	\$2,350.00 plus fees and expenses for William O. Harms	
	2,100.00 plus fees and expenses for Harry D. Helmgren	
3,960.00	From Eli Lilly Company to establish a fellowship in animal breeding	1950
3,974.00	To establish a fellowship in the Graduate School in honor of Dr. John Torrance Tate	1950
	\$2,324.00 from 41 donors	
	1,000.00 General Mills, Incorporated	
	400.00 Professor and Mrs. J. W. Buchta	
	250.00 Gaylord P. Harnwell	
3,625.00	From St. Joseph's Hospital to establish a fellowship in surgery	1950
3,600.00	From Kurth Malting Company for a research fellowship in the field of microbiological problems pertaining to malting of barley	1951
3,600.00	From Bristol-Myers Company to establish a graduate fellowship in the School of Chemistry for David Bush, under the direction of Dr. I. M. Kolthoff	1950
3,500.00	From the American Council of Learned Societies for a fellowship for Professor Norman DeWitt	1951
2,500.00	From General Mills, Incorporated to support a predoctoral fellow in the field of organic chemistry for a period of one year	1950
2,500.00	From The Visking Corporation for a graduate fellowship for 1951-52 in the Department of Chemistry, Institute of Technology (if continued, the second year to be in biochemistry; the third year in chemical engineering)	1951
1,500.00	To establish a fellowship in otolaryngology to be jointly supported by Miller Hospital and St. Joseph's Hospital	1951
1,500.00	From The Viking Fund, Incorporated to establish a fellowship (\$1,000 in part payment of traveling expenses of Dr. H. E. Wright, Jr., geology, on an archeological expedition to Iraq, and \$500 for salary of a substitute teaching assistant)	1951
1,500.00	From the National Cancer Institute of Canada for support of a fellowship in cancer biology for John D. Ross	1950
1,500.00	From the American Cyanamid Company to establish a graduate fellowship in chemistry	1951
1,250.00	From the California Company for a graduate fellowship (plus \$500 tuition to non-serviceman) in the Department of Geology covering geological research	1951
500.00	From the American Cancer Society, Incorporated to establish a fellowship in physiological chemistry	1951
400.00	From the Furniture Club of America for a fellowship in the field of furniture and wood technology in the School of Forestry	1951

\$ 45,609.00

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Fellowship Funds—Additions to Previous Gifts

Amount		Year Established
\$ 47,304.00	Minneapolis General Hospital Fellowships (for 25 fellowships for 12 months, 1 fellowship for 6 months, and 3 instructorships for 1950-51)	1931
23,650.00	For affiliated hospital fellowships	
	\$9,000.00 St. Barnabas Hospital	
	\$3,000.00 surgery	1946
	3,000.00 pediatrics	1946
	3,000.00 medicine	1946
	7,900.00 Northwestern Hospital	
	\$3,000.00 medicine	1946
	2,525.00 pediatrics	1946
	1,590.00 surgery	1946
	875.00 pathology	1947
	5,250.00 Charles T. Miller Hospital	
	\$3,000.00 surgery	1947
	1,500.00 obstetrics and gynecology	1946
	750.00 radiology	1946
	1,500.00 Quain and Ramstad Clinic Fellowship Fund—radiology	1946
13,500.00	From the American Cancer Society, Incorporated	
	\$9,000.00 Fellowship in Surgery	1949
	4,500.00 Fellowship in Physiology	1949
11,900.00	From Du Pont de Nemours and Company	
	\$5,300.00 Postdoctorate Fellowship in Chemistry	1946
	3,300.00 Postgraduate Fellowship in Chemistry	1946
	3,300.00 Postgraduate Fellowship in Chemical Engineering	1946
6,613.55	From the American Foundation for Pharmaceutical Education	
	\$5,488.55 Fellowship in Pharmaceutical Chemistry	1947
	1,125.00 Fellowship in Pharmacognosy	1947
5,600.00	Carbide and Carbon Chemicals Corporation Fellowship in Organic Chemistry	1946
5,500.00	From Elizabeth Kenny Institute	
	\$4,000.00 Fellowship in Physical Medicine	1949
	1,500.00 Fellowship in Pediatrics	1949
4,603.50	Alpha Phi Cardiac Fellowship	1947
3,600.00	Minnesota Mining and Manufacturing Company Fellowship	1946
3,520.00	From Shell Development Company	
	\$1,760.00 Fellowship in Chemistry	1947
	1,760.00 Fellowship in Geology	1947
3,000.00	St. Paul Children's Hospital Fellowship in Pediatrics and Research	1945
	\$1,500.00 Webb Publishing Company	
	1,500.00 Children's Hospital	
2,800.00	United States Rubber Company Predoctoral Fellowship in Chemistry	1947
2,400.00	Allied Chemical and Dye Corporation Fellowship (plus tuition)	1941
1,736.00	Norwegian-American Graduate Fellowship Fund	1945
1,666.67	Midland Cooperative Wholesale Graduate Fellowship	1946
1,500.00	Monsanto Chemical Company Graduate Fellowship in Organic Chemistry	1946
1,350.00	Firestone Fund	1934
1,200.00	Abbott Laboratories Fellowship in Chemistry	1945
1,000.00	Westinghouse Educational Foundation Fellowship Fund	1946
831.00	Miller Hospital Fellowships from Dr. E. P. Burch	1941
100.00	Clara Ueland Fellowship, through the Greater University Fund	1928
\$143,374.72		

Prizes—New

\$ 25,000.00	From John and Mary Markle Foundation (\$5,000 annually for five years) to establish an award in medical sciences for Dr. Robert A. Good as a scholar	1950
50.00	From Mrs. Francis H. De Groat to establish a memorial award for the best composition written by a student at the Duluth Branch	1950
25.00	From Women's Auxillary of the Minnesota State Veterinary Society for a prize to the most outstanding senior in first graduating class of the School of Veterinary Medicine (spring quarter, 1951)	1951
\$ 25,075.00		

Prizes—Additions to Previous Gifts

\$ 300.00	Thomas F. Ellerbe Prize in Architecture	1949
200.00	Magney, Tusler and Setter Prize	1948
200.00	C. H. Johnston Prize in Architecture	1945
175.00	John S. Pillsbury Prize	Prior to 1926
110.00	American Society of Mechanical Engineers, Twin Cities Section	1924
100.00	Southern Minnesota Medical Association	1930
100.00	Peavey Prize	1944
60.00	American Society of Civil Engineers—Northwestern Section	1935
50.00	English Composition Awards in composition courses	1949
	Alpha Kappa Psi Scholarship Medal	1937
	Alpha Chi Sigma Twin City Alumni Association Prize (\$10 in books)	1929
	Kappa Epsilon Award	1937

Amount		Year Established
	Lehn and Fink Medal	1923
	Phi Lambda Upsilon Prizes	1926
	Alpha Chi Sigma Twin City Alumni Association Prize	1929
	University Business Women's Club Scholarship Key	1939
	Wulling Club Key	1930
	Delta Sigma Phi Scholarship (key)	1929
	Phi Delta Junior Scholarship Award (gold bracelet)	1939
	Chemistry Faculty Prize (\$25 in books)	1946
	Chi Epsilon Prize (\$9 in books)	
	Rho Chi Award in Pharmacy (one year's membership in American Pharmaceutical Association)	1939

\$ 1,295.00

Research Funds—New

\$221,349.00	From the United States Public Health Service	
\$32,400.00	To establish a research on ACTH and Cortisone under the direction of Drs. Morse J. Shapiro and Lewis Thomas (medicine)	1950
24,000.00	For research on the pathogenesis of rheumatic fever under the direction of Dr. Lewis Thomas (medicine)	1950
17,294.00	For research on gastric carcinogenesis in inbred strains of mice under the direction of Dr. Claude Hitchcock (medicine)	1950
16,046.00	For research on gastric secretion under the direction of Dr. E. E. Mason (medicine)	1950
14,670.00	For research on experimental endocarditis under the direction of Dr. C. W. Lillehei (medicine)	1950
14,040.00	For a study of the use of ultrasonic pulses for the measurement of biological tissues under the direction of Dr. J. J. Wild (medicine)	1950
12,204.00	For research on the effects of Cortisone on experimental endocarditis and genetic differences in ACTH and Cortisone under the direction of Dr. M. B. Visscher (medicine)	1951
11,016.00	For research on the C-reactive proteins under the direction of Dr. R. A. Good (medicine)	1951
10,284.00	For research on electron microscope analysis of the central nervous system under the direction of Dr. J. Francis Hartmann (medicine)	1951
9,532.00	For research on vitamins and amino acids in enzyme systems under the direction of Dr. Herman C. Lichstein (medicine)	1950
9,450.00	For mass and elementary analysis of adrenal cells measured by X-ray absorption under the direction of Dr. David Glick (medicine)	1950
8,169.00	For research on cancer on the steroidal conjugation mechanism under the direction of Dr. S. L. Cohen (medicine)	1950
7,101.00	For research on quantitative cytochemistry of the gastric mucosa under the direction of Dr. David Glick (medicine)	1950
6,993.00	For research on pulmonary hypertension under the direction of Drs. John LaBree and Joseph Jorgens (medicine)	1950
5,479.00	For research on the influence of aureomycin under the direction of Dr. Karl R. Johansson (medicine)	1951
5,456.00	For research on a direct visual method of producing interauricular communications under the direction of Dr. I. D. Baronofsky (medicine)	1950
5,238.00	For a study of the use of vital staining and histochemical methods in studies of heart, lungs, kidneys, and blood vessels under the direction of Dr. W. Lane Williams (medicine)	1950
4,842.00	For research on the nutritional requirements of the early embryo under the direction of Dr. Nelson T. Spratt, Jr. (zoology)	1950
4,555.00	For research on functioning of endocrine glands in the fetus under the direction of Dr. L. J. Wells (medicine)	1950
1,500.00	For research on bacteria in unsaturated fatty acids under the direction of Dr. J. J. Jezeski (agriculture)	1950
540.00	For research on a possible extrinsic dietary factor in the etiology of gastric and colonic cancer under the direction of Dr. T. H. Crawford Barclay (medicine)	1950
540.00	For research on the metabolism of heart tissue under the direction of Dr. J. A. Johnson (medicine)	1950
100,000.00	From the Ford Foundation for research in individual behavior and human relations (Graduate School)	1950

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Amount		Year Established
47,709.00	From the Louis W. and Maud Hill Family Foundation	
\$35,700.00	For support of a three-year research program in heart disease to be conducted at the Ancker Hospital in St. Paul (medicine)	1951
11,509.00	For research on cerebral palsy (\$7,535 first year; \$3,974 second year) under the direction of Dr. Spencer F. Brown (medicine)	1950
500.00	For research on stratification structure (sociology)	1951
33,000.00	From the American Cancer Society, Incorporated	
\$25,000.00	For research on cortisone and ACTH under the direction of Dr. A. J. Kremen (medicine)	1950
8,000.00	For research in a program of re-operation in lymph-node positive cases under the direction of Dr. O. H. Wangensteen (medicine)	1951
27,300.00	From the Rockefeller Foundation for research on human genetics at the Dight Institute under the direction of Dr. Sheldon C. Reed (Dight Institute)	1951
25,150.00	To establish a research on heart disease (medicine)	1950
\$25,000.00	Minnesota Heart Association	
150.00	Women's Auxillary, Hennepin County Medical Society	
23,500.00	From the Lederle Laboratories Division of the American Cyanamid Company	
\$16,000.00	For research in animal protein factor supplements under the direction of Dr. Walter Lundberg (Hormel Institute)	1950
7,500.00	For assistance to Dr. Jerome T. Syverton in his research program in viruses and experimental cancer (Lederle Fluid Research) (medicine)	
20,475.00	From the American Heart Association for research on rheumatic fever under the direction of Dr. R. A. Good (medicine)	1951
15,000.00	From the Damon Runyon Memorial Fund for Cancer Research for research on reoperation on cancer patients with positive regional lymphnodes under the direction of Dr. O. H. Wangensteen (medicine)	1951
8,750.00	From General Mills, Incorporated for television and radio studies under the direction of the School of Journalism	1950
7,500.00	From Eli Lilly and Company	
\$4,000.00	For research on the metabolism of folic acid and its derivatives under the direction of Dr. Charles D. May (medicine)	1950
3,500.00	For research on cardiac pressure under the direction of Dr. F. H. Van Bergen (medicine)	1950
7,500.00	From the Social Science Research Council, Incorporated for assistance to Professor Dale Yoder in his research on labor mobility (business)	1951
7,500.00	From the Southern Minnesota Breeding Federation for research on artificial breeding of cattle (agriculture)	1951
7,000.00	From Sterling-Winthrop Research Institute for research on lithospermum ruderales under the direction of Dr. Elizabeth N. Cranston (medicine)	1950
6,480.00	From the National Academy of Sciences for studies of electron multipliers in mass spectrometry under the direction of Dr. A. O. C. Nier (physics)	1951
5,000.00	From the Research Corporation—Williams-Waterman Fund to conduct studies on effects of maternal nutrition on the young under the direction of the Division of Agricultural Biochemistry (agriculture)	1950
4,200.00	From the Minnesota Heart Association for research on method and application to man of vectorelectrocardiography under the direction of Dr. Ansel Keys (medicine)	1951
3,000.00	From the Williams-Waterman Fund for the Combat of Dietary Disease for research on amino acids under the direction of Dr. H. C. Lichstein (medicine)	1951
2,400.00	From the American Society of Heating and Ventilating Engineers for research on panel heating system control under the direction of the Department of Mechanical Engineering (technology)	1950
2,244.00	From the Land o' Lakes Creameries, Incorporated for research on artificial insemination (agriculture)	1950
2,000.00	From the Spencer Chemical Company for research on fertilizers (agriculture)	1950
2,000.00	From the Sulphite Pulp Manufacturers Research League, Incorporated for research on torula yeast in chicken and turkey nutrition (agriculture)	1950
2,000.00	From John H. Briggs for research on porphyria under the direction of Dr. C. J. Watson (medicine)	1950
1,500.00	From the National Turkey Federation for research on sinusitis and respiratory disease of turkeys (agriculture)	1950
1,000.00	From Niagara Chemical Division, Food Machinery and Chemical Corporation, for research on herbicidal characteristics of certain chemicals (agriculture)	
640.00	From Winthrop-Stearns, Incorporated for research on the use of diodrast in cerebral angiography under the direction of Dr. George E. Moore (medicine)	1951

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Amount		Year Established
600.00	From the American Dry Milk Institute for research on bacteria in dry sweet cream buttermilk solids under the direction of the Division of Dairy Husbandry (agriculture)	1951
600.00	From W. A. Cleary Corporation for research on the fungicidal value of organo-mercurials as seed disinfectants (agriculture)	1951
500.00	From Southern Alkali Corporation for research on the herbicidal properties of IPC and Chloro IPC (Weed Control Fund) (agriculture)	1951
287.50	From the Minnesota Medical Foundation to establish the St. Joseph's Hospital Fund for Surgical Research (medicine)	1950
100.00	From the Orleans Canning Company for a research fund in the Chemistry Department of Duluth Branch (technology—Duluth Branch)	1951
100.00	From B. H. Ridder, Jr. to establish the Advertising-Marketing Research Fund—Duluth Branch to be used for research purposes by the Department of Business and Economics at the Duluth Branch (business and economics—Duluth Branch)	1951
Special grants as required	From Green Giant Company for research on farm drainage and soils under the direction of the Divisions of Agricultural Engineering and Soils (agriculture)	1950
\$586,384.50		

Research Funds—Additions to Previous Gifts

\$253,882.00	From the United States Public Health Service	
\$25,000.00	For cancer teaching and clinical cancer research (medicine)	1948
23,490.00	For polarographic studies of cancer (medicine)	1948
22,211.00	For research on mouse mammary cancer and mouse leukemia (medicine)	1948
18,727.00	For research on rheumatic fever complex (medicine)	1949
15,618.00	For research in etiology of acid-peptic ulcer (medicine)	1947
15,058.00	For research on fluorescein dyes (medicine)	1948
15,000.00	For cancer research (medicine)	1946
13,986.00	For research on mass spectrometer (medicine and physics)	1948
12,000.00	For research in toxic substances in water (medicine)	1947
11,772.00	For research on role of a cockroach as a carrier of organisms (medicine)	1947
11,740.00	For research on effect of blood glucose level in rats (medicine)	1949
10,540.00	For research on parametric electrocardiograms (physics)	1949
9,093.00	For research on drugs (medicine)	1949
8,385.00	For research on conjugation of steroids in the body (medicine)	1948
7,673.00	For research on sclerotic nerve cell (medicine)	1946
7,374.00	For research on sympatholytic drugs (medicine)	1949
4,924.00	For studies on the mechanism of body temperature regulation (medicine)	1948
4,838.00	For research on the reactions of the hepatic parenchyma in injury and repair (medicine)	1948
4,320.00	For research on experimental diabetes mellitus (medicine)	1950
3,978.00	For research on the biology of human breast cancer (medicine)	1948
3,296.00	For research on pathogenesis on arteriosclerosis in diabetes (medicine)	1949
3,283.00	For research on glomerulonephritis in inbred mice (medicine)	1949
540.00	For research on pathogenesis of coronary sclerosis (medicine)	1950
540.00	For investigation of inhibition of acid production by chlorophyll (medicine)	1950
496.00	For studies on hereditary ataxia (medicine)	1950
98,743.00	From the American Cancer Society, Incorporated	
\$40,000.00	For cancer research (medicine)	1947
10,000.00	For cancer research (medicine)	1949
10,000.00	For research on the mammary tumor milk agent (medicine)	1946
7,473.00	For studies of chemical and metabolic characterization of mouse mammary carcinoma (medicine)	1946
7,370.00	For rabbit cancer research (medicine)	1946
6,925.00	For research on genetics of human breast cancer (zoology)	1948
5,000.00	For research on mammary cancer in mice (medicine)	1946
4,725.00	For research on chemotherapy of mouse leukemia (medicine)	1949

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Amount		Year Established
4,000.00	For research on metabolism of perfused organs (medicine)	1949
3,250.00	For research on caloric restrictions in mammary cancer in mice (medicine)	1950
68,268.00	From the National Foundation for Infantile Paralysis	
\$37,074.00	For research on host cell virus relationship (medicine)	1949
12,350.00	For a medulla study (medicine)	1949
7,000.00	For public health research (medicine)	1946
6,440.00	For research in physiology (medicine)	1949
5,404.00	For polio research in pharmacology (medicine)	1949
66,509.05	For the Malignant Disease Research Fund (medicine)	1946
\$39,615.00	From the following donors:	
\$25,000.00	Louis W. and Maud Hill Family Foundation	
5,000.00	William H. Thompson (Paul J. and Ruth Thompson Cancer Research Fund)	
5,000.00	Armour and Company	
2,000.00	Bequest in the will of Robert A. Wood	
1,250.00	Anonymous	
513.00	Newspaper Guild of the Twin Cities (Caroline Clogston Memorial Fund)	
300.00	Mr. and Mrs. Jerome Hirsh (Samuel Hirschfeld Fund for Surgical Research)	
250.00	Winston Brothers Company, in memory of Charles S. Whitaker	
202.00	CIO Newspaper Guild of the Twin Cities, in memory of Caroline Clogstad	
100.00	Mrs. Stanton W. Forsman	
13,283.30	From the Minnesota Medical Foundation	
12,980.00	Through the Minnesota Medical Foundation	
\$10,000.00	Jay Phillips	
1,000.00	Anne E. Hellesen	
1,000.00	John C. Benson (Edna S. Benson Fund)	
500.00	E. W. Wylie	
280.00	Dr. Richard L. Varco	
200.00	W. S. Davidson	
630.75	From various donors (of which \$10 was channeled through the Greater University Fund)	
18,500.00	From Lederle Laboratories Division, American Cyanamid Company	
\$7,500.00	For research on virus disease in swine (Hormel Institute)	1949
6,500.00	For research on brucellosis (medicine)	1948
4,500.00	For research in animal disease (agriculture)	1944
11,250.00	M and R Dietetic Laboratories, Incorporated Research (medicine)	1948
10,000.00	E. I. du Pont de Nemours and Company Research in Chemistry (technology)	1949
10,000.00	Austen S. Cargill Fund for Surgical Research from Cargill Charitable Trust, through the Minnesota Medical Foundation (medicine)	1948
10,000.00	Gerber Products Research (medicine)	1949
9,325.00	American Spice Trade Association (Hormel Institute)	1950
8,366.00	Eli Lilly and Company Pregnancy Anemia Studies (medicine)	1949
6,000.00	Wyeth, Incorporated Research on Anemia of Infants (medicine)	1947
5,000.00	Helen Hay Whitney Foundation Research in Field of Rheumatic Fever (medicine)	1948
4,600.00	Research Corporation Synthesis of Polycyclic Compounds (technology)	1949
4,500.00	Corn Products Refining Company Research (technology)	1948
4,500.00	Minnesota Society for Crippled Children Research on Rh Haptens (medicine)	1949
3,600.00	American Potash Institute, Incorporated (agriculture)	1940
3,600.00	Dr. Salsbury's Laboratories Research (Hormel Institute)	1948
3,000.00	Minnesota Valley Breeders Association Fund for Research (agriculture)	1950
3,000.00	Federation of Paint and Varnish Production Clubs Research (technology)	1946
2,510.00	For the Heart Disease Research Fund (medicine)	1945
\$2,000.00	Bequest in the will of Robert A. Wood	
250.00	Lawrence Berglund	
260.00	Various donors	
2,504.00	Minnesota Cancer Society, Incorporated Tumor Research (medicine)	1946
2,500.00	Weatherstrip Research Institute Research (technology)	1949
2,500.00	Merck and Company, Incorporated Research on Poultry Rations (agriculture)	1949
2,500.00	Flora Rosenblatt Fund for Cancer Research from D. B. Rosenblatt, through the Minnesota Medical Foundation (medicine)	1944
2,250.00	Dr. Henry K. Beecher Fund Study Relating to Anesthesia Deaths, from Massachusetts General Hospital (medicine)	1949
2,000.00	Soya Flour Research Fund (agriculture)	1945
2,000.00	B. F. Nelson Research Fund from an anonymous donor, through the Minnesota Medical Foundation (medicine)	1947
2,000.00	Northwest Feed Manufacturers Research (agriculture)	1949

Amount		Year Established
2,000.00	American Society of Heating and Ventilating Engineers Research on Solar Energy (technology)	1950
2,000.00	Insulation Board Institute Research (technology)	1944
2,000.00	Augustus L. Searle Fund for Surgical Research (medicine)	1945
1,665.60	Midwest Barley Improvement (agriculture)	1947
1,600.00	Superior Metal Products Company Research (technology)	1940
1,568.71	Star and Tribune Newspaper Studies (journalism)	1944
1,500.00	Milk Distributors Research Fund, from the Quality Control Committee (agriculture)	1936
1,500.00	Rock Analysis Laboratory (geology)	1929
1,500.00	International Baby Chick Association Variant Pullorum Research (agriculture)	1949
1,000.00	Pharmacology Research Fund, from Ciba Pharmaceutical Products Incorporated (medicine)	1946
1,000.00	Erie Mining Company Research (agriculture)	1948
1,000.00	Hawaiian Sugar Planters' Association Research (physics)	1948
1,000.00	Horace Newhart Research Fund in Otolaryngology (medicine)	1945
510.00	Experimental Medical Research Fund (medicine)	1942
	\$500.00 Dietene Company	
	10.00 Dr. and Mrs. Paul Highby	
500.00	Tennessee Corporation Fungicide Fund (agriculture)	1944
500.00	Naugatuck Chemical Fund (agriculture)	1949
500.00	Life Insurance Medical Research Fund Research on Hypertension (medicine)	1949
300.00	Mrs. Tillie Nelson Fund for Surgical Research in Cancer, from F. A. Nelson (medicine)	1947
200.00	Dr. N. Logan Leven Fund for Surgical Research from Minnesota Medical Foundation (medicine)	1946
127.25	John J. Bittner Cancer Research Fund (medicine)	1948
100.00	Frank E. Burch Research Fund in Ophthalmology, from Dr. Arthur F. Williams (medicine)	1943
50.00	Clarence Dennis Fund for Surgical Research, from Mrs. Rose Lang (medicine)	1947
2.00	Physical Medicine Research, through the Greater University Fund (medicine)	1950
\$643,530.61		

Miscellaneous Funds—New

45,770.00	From W. K. Kellogg Foundation (over a three-year period) for support of a program in hospital administration	1950
27,855.96	From the United States Public Health Service	
	\$16,293.96 For a study of security of individuals in groups under the direction of Professor Ben Willerman	1951
	11,562.00 For a training program in neurology under Dr. A. B. Baker	1950
25,000.00	From the Variety Club to establish the Variety Heart Hospital Administration Fund	1951
25,000.00	From the Crippled Child Relief, Incorporated through the Greater University Fund, for the purchase of equipment for the occupational therapy unit of the Rehabilitation Center in the Mayo Memorial Center	1951
21,600.00	From Ancker Hospital to support a program in graduate medical education	1950
7,585.59	From the Minnesota Medical Foundation to establish a lectureship in cardiology in honor of Dr. George E. Fahr	1950
5,517.21	From the W. K. Kellogg Foundation to enable two nursing faculty members to attend the Nursing Service Administration Workshop at the University of Chicago	1951
5,000.00	From the Minnesota State Department of Social Security for a mental health survey in Nobles County under the direction of Dr. John E. Anderson	1950
3,800.00	From the Southwest Minnesota Farm Management Association, Agricultural Extension, to provide for payment toward salary of fieldman engaged in studies on management	1950
3,000.00	From the estate of Ruth S. Morand to defray expenses of the maintenance and upkeep of the Arthur Upson Room in the University Library	1951
2,700.00	From the Society for Preservation and Encouragement of Barbershop Quartette Singing in America, through the Greater University Fund, for the purchase of research equipment in the Variety Heart Hospital	1951
2,500.00	From Hudson Walker for cataloging the collection and paintings owned by Marsden Hartley on loan to the University Gallery	1950
2,000.00	From the Minnesota State Health Department, through the commissioner of mental health, for the development and conduct of a workshop in mental hygiene	1950
2,000.00	Bequest in the will of Dr. George Douglas Head for a fund to buy clothing for needy women and children leaving the hospitals	1951
2,000.00	From the Minneapolis Star and Tribune to help support the nursing instructional program	1951

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Amount		Year Established
1,008.00	From the Minneapolis Star and Tribune for employment of a graduate teaching assistant in School of Journalism for fall, winter, and spring quarters, 1950-51	1950
1,000.00	From F. H. Peavey and Company, through the Greater University Fund, for support of the Collegiate Crops Judging Team on its annual trips	1950
1,000.00	From the Social Service Council, Student Activities Bureau, through the Greater University Fund, to establish the President's Loyalty Fund, to be used by the president as he may see fit	1950
1,000.00	From George A. Hormel and Company for preparation of a film on swine management under the direction of the Agricultural Extension Division	1951
1,000.00	From Mr. and Mrs. John Rood, through the Greater University Fund, for the unrestricted use of the Department of Art	1951
800.00	From colleagues, former students, and friends of the late Warren Waite for a fund from which to purchase books to be added to his professional library	1951
582.62	To establish a lecture fund in honor of Frank K. Walker	1950
	\$306.12 From the Alumni Association of the Division of Library Instruction, through the Greater University Fund	
	276.50 Through the Greater University Fund, anonymous	
565.00	From the Minnesota Dairy Technology Society, through the Greater University Fund, for use by the Dairy Division of the Department of Agriculture in financing the expenses of student judging teams	1950
500.00	From the National Foundation for Infantile Paralysis to establish a fund to cover laboratory expenses in connection with Dr. Leonard Peltier's research project on respiration	1950
400.00	From Allis-Chalmers Manufacturing Company to the School of Mines and Metallurgy for purchase of laboratory equipment for use of W. F. Stowasser in his graduate work in the Department of Metallurgy	1950
350.00	For various uses in the School of Veterinary Medicine that do not fall within the regular budgeted program	1951
	\$200.00 George A. Hormel and Company, through the Greater University Fund	
	100.00 Ladies Auxiliary of Minnesota State Veterinary Medical Society, through the Greater University Fund	
	50.00 Wilson and Company, through the Greater University Fund	
261.10	From the Honorable R. L. Griggs to take care of expenses incurred by the Regents on the trip to Duluth for the July 7, 1950 meeting	1950
250.00	From Louis W. and Maud Hill Family Foundation to Department of Physics to provide equipment for ultrasonic research under the direction of Dr. Frederic E. B. Foley	1951
150.00	For the preparation and publication of a literary quarterly at the Duluth Branch, on a one-issue experimental basis	1951
	\$100.00 Fred P. Willie	
	50.00 K. D. Tomlinson	
143.75	From the St. Olaf College Student Body to Occupational Therapy Department for care of respirator poliomyelitis patients under the direction of Borghild Hanson	1951
100.00	From James H. Hyde for fee for lecture of M. Robert Lacour-Gayet	1951

\$190,439.23

Miscellaneous Funds—Additions to Previous Gifts

\$207,825.00	From the United States Public Health Service	
	\$48,889.00 For training of psychiatric nurses	1947
	48,876.00 For the advanced mental hygiene program	1947
	27,730.00 For cancer detection clinic	1947
	25,348.00 For training of psychiatric social workers	1947
	14,000.00 For cardiovascular teaching	1949
	12,533.00 For compilation and editing of material on global epidemiology	1946
	7,416.00 For training in advanced psychiatric social work	1949
	6,134.00 For cancer nursing and control	1949
	5,300.00 For psychiatric training	1947
	5,000.00 For undergraduate training in dentistry	1948
	4,000.00 For training in clinical psychology	1947
	2,599.00 For training in neuroanatomy	1949
150,003.00	American Legion Memorial Heart Professorship Fund	1948
	\$150,000.00 Minnesota American Legion Foundation	
	3.00 American Legion Auxiliary Unit to Franklyn J. Lyons Post III, Osakis, Minnesota	
39,136.00	W. K. Kellogg Foundation Program in Postgraduate Medical Education	1945
20,777.75	Cancer Detection Clinic Fund	1947
	\$20,000.00 Minnesota Division, American Cancer Society, Incorporated	
	330.00 From numerous donors	
	204.00 Richard A. Larson	
	143.75 St. Olaf College student body	
	100.00 Mrs. Alvin W. Guttersen	

Amount		Year Established
13,772.76	Friends of the University of Minnesota Library Fund	1944
	\$12,332.00 Honorable James F. Bell	
	1,400.00 Anonymous, through the Greater University Fund	
	40.76 Various donors	
12,625.00	Heart Hospital Equipment Fund	1948
	\$6,860.06 Variety Club of the Northwest	
	3,468.79 Numerous donors	
	544.40 Hiwayan Club	
	500.00 Mrs. Charles M. Drew	
	500.00 Military Order of Purple Heart, Clayton Carmichael Chapter No. 8	
	403.00 Variety Cafe Employees Good Deed Club	
	143.75 St. Olaf College	
	100.00 Sigma Delta Tau Mothers Club	
	100.00 Flox Company	
	5.00 Anonymous, through the Greater University Fund	
11,043.21	4-H Club Fund	1931
	\$3,124.00 National Committee on Boys and Girls Club Work	
	1,000.00 Federal Cartridge Corporation	
	1,000.00 Great Northern Railway Company	
	600.00 Land O' Lakes Creameries Incorporated	
	560.00 United States Rubber Company	
	558.55 Numerous donors	
	532.00 Northern Pacific Railway	
	500.00 Minnesota Bankers Association	
	450.00 Farm Underwriters Association	
	415.16 Soo Line Railroad Company	
	375.00 Minnesota Rural Youth Federation	
	311.00 Chicago and Northwestern Railway Company	
	275.00 Chicago, Milwaukee, St. Paul and Pacific Railroad	
	262.50 Republic Steel Corporation	
	250.00 Northern States Power Company	
	200.00 J. R. Watkins Company	
	200.00 Kellogg Company	
	180.00 Chicago, Rock Island and Pacific Railway Company	
	150.00 Pride Hybrid, Incorporated	
	100.00 King Midas Flour Mills	
8,000.00	Junior League of Minneapolis Medical Social Workers Fund	1947
7,911.44	Student Project for Amity Among Nations (SPAN)	1947
	\$2,500.00 Minneapolis Gas Company	
	1,820.00 Minnesota Span Association, through the Greater University Fund	
	1,550.00 Student Activities Bureau, through the Greater University Fund	
	876.00 Various donors, through the Greater University Fund	
	750.00 SSC Campus Carnival, through the Greater University Fund	
	365.44 Student Activities Bureau	
	50.00 Sanford Hall Council	
6,668.83	Minnesota Medical Foundation—E. T. Bell Fund	1949
	\$5,668.83 Various donors, through the Greater University Fund	
	1,000.00 Salkin and Linoff Foundation, through the Greater University Fund	
6,500.00	William A. O'Brien Professorship in Cancer Research, from the Minnesota Division of the American Cancer Society	1948
6,000.00	Analog Computing Center	1950
	\$5,000.00 General Mills, Incorporated	
	1,000.00 Minnesota and Ontario Paper Company	
4,234.94	Thomas Heggen Memorial Book Collection	1950
	\$3,124.94 Henry Fonda, Leland Hayward, and Joshua Logan	
	1,000.00 Mr. and Mrs. Joshua Logan	
	100.00 Reader's Digest Foundation, Incorporated	
	10.00 Stanley M. Heggen	
3,250.00	Elizabeth Kenny Institute Attending Pediatrician	1949
1,920.00	Booth Memorial Hospital Fund	1940
	\$1,000.00 Booth Memorial Hospital	
	500.00 Drs. Swendson, Sturley and Hayes	
	420.00 Various donors	
1,315.00	Alfred Owre Memorial Fund in Dentistry, through the Greater University Fund	1949
1,300.00	Minnesota Jewish Council 4-H Club Fund	1942
787.18	Additional from bequest in will of Mrs. Adelle C. Melendy for Samuel W. Melendy Fund	1942
700.00	Minnesota Museum of Natural History Special Collections Fund	1942
500.00	From the Minnesota Medical Foundation for Harry Parks Ritchie Memorial Fund	1948
500.00	Inter-American Congress on Brucellosis Fund, from the National Research Council, through the National Academy of Sciences	1950
442.00	School of Agriculture-St. Paul Campus-Loyalty Fund, through the Greater University Fund	1950
255.00	Luthard N. Bergh Memorial Fund	1948

Amount		Year Established
\$200.00	From Dr. Solveig M. Bergh, through the Greater University Fund	
55.00	Dr. George S. Bergh	
225.00	Greater University Fred B. Snyder Fund	1947
\$175.00	From various donors	
50.00	Anonymous, through the Greater University Fund	
200.00	Guild Memorial Lectureship	1947
200.00	Judd Lectureship in Medicine and Surgery	1933
150.00	William Harvey Emmons Fund	1944
\$100.00	Dr. Frank F. Grout, through the Greater University Fund	
50.00	Dr. Charles Meyer	
144.13	From the senior class of the School of Agriculture for the St. Paul Campus Union Fund	1949
130.00	J. C. Litzenberg Memorial Room Fund	1950
\$80.00	Anonymous	
50.00	Anonymous, through the Greater University Fund	
125.00	From the Foster Club for the Occupational Therapy Department of the University Hospitals	
96.00	Music Development Fund, through the Greater University Fund	1949
50.00	Frances Miller Brown Endowment Fund	1948
30.00	From George C. Ulmer, Jr., and W. H. Tusler, for the School of Public Health, Hospital Administration Department	
15.00	From Eleanor Schultz for the Psychopathic Hospital	
4.00	Mayo Memorial Fund, from three donors	1944
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\$506,836.24		

MISCELLANEOUS GIFTS, 1950-51

To the University Gallery:

- A painting of the University of Minnesota campus from the Ford Motor Company, Dearborn, Michigan
- A book entitled *Gustav Vigeland* by Hans P. Lodrup from Abdiel Kallestad, Minneapolis
- Life and Work of Edward Lamson Henry N. A.* and several magazines from Elizabeth McCausland

To the Mechanical Engineering Department:

- Units for use in the development of a refrigeration laboratory from the Seeger Refrigerator Company
- A Ford Industrial Type 8RNN engine less transmission and radiator from Twin City Ford Dealers Advertising Fund
- Two Milwaukee jolt squeeze molding machines from the Minneapolis Moline Company to the Foundry Laboratory
- Three model hydraulic turbine runners from Allis-Chalmers Manufacturing Company

To the University Theatre:

- A Civil War cap a silk top hat, and a leather hat box from Mr. and Mrs. R. F. Shepherd, Minneapolis
- Theater costumes (dolman and shawl) from Mrs. Edith Tomlinson
- Medical uniforms from Dr. Stanley Child
- A large collection of theatrical costumes donated by KSTP's television department, formerly property of North Star Theatre, from Kenn Barry of KSTP

Sixty-six pressed and mounted herbarium specimens to the Botany Herbarium, from F. W. Hunnewell, Wellesley, Massachusetts

Gifts to the Department of Music through the Ferguson-Lindsay Music Development Project of the Greater University Fund:

- Chamber music from William Mentor Grosse, Excelsior
- Music scores from Stanley R. Avery, Minneapolis
- Books from Mrs. Charles P. Hennessy, Minneapolis

The professional library of the late Professor Warren C. Waite to the Division of Agricultural Economics, St. Paul Campus, from Mrs. W. C. Waite

A large model of a B-29 airplane from Mrs. C. E. Bradshaw to the Department of Aeronautical Engineering

Fifty-five kodachrome slides for the Junior F. Hayden slide collection of the Departments of Geology and Mineralogy, from Lawrence W. King of the St. Paul Fire and Marine Insurance Company

A reading rate controller from The Dayton Company to the Student Counseling Bureau Educational Skills Clinic

Loan of a new model G-1 Gustafson slurry treater for use by the Division of Agronomy and Plant Genetics from Agricultural Services, Incorporated

Fifteen racks of animal cages from General Mills, Incorporated Research Laboratories to the Division of Agricultural Biochemistry and the School of Veterinary Medicine

A 40-acre tract of land which is the Southeast ¼ of the Northwest ¼ of Section 21, Township 34 North, Anoka County, reported by the Natural History Society

Gift to University of Minnesota Duluth Branch, Department of Political Science, of the following documents in special illustrated editions:

- The Magna Carta
- The Declaration of Independence
- The Charter of the United Nations

Bulletins, professional papers, and other materials to the Winchell Library of the Department of Geology from Frank G. Jewett

- A Sharistan Oriental rug presented to the University of Minnesota by Harold W. Sweatt and Charles B. Sweatt of Minneapolis, Mrs. L. S. Strong, Wayzata, and Mrs. A. C. Potter of New York City
- Rare books and other printed pieces from Frank P. Leslie, President of John Leslie Paper Company, to the School of Journalism
- Numerous anthropological specimens from the Order of St. Benedict, St. Joseph, Minnesota, to the Anthropology Museum
- Gift of ethnological specimens from Queen Charlotte Islands of British Columbia with full documentation of their tribal origins, and other articles from Northwest Coast Indians from William Mentor Cross, Excelsior, Minnesota, to the Department of Anthropology
- A four-cylinder test engine from the International Harvester Company to the Agricultural Engineering Laboratory
- Number 2 diamond gang plow and a 20-gallon supply tank for cream separator from the International Harvester Company to the Division of Agricultural Engineering
- To the University Library:
- Bequest in the Will of Harry Collins of his Japanese Imperial Decoration, The Fourth Order of the Rising Sun, and accompanying scroll
- Gift of his private library from President Emeritus Guy Stanton Ford
- Set of complete papers of Thomas Jefferson from Mr. and Mrs. Parker D. Sanders, Redwood Falls, through the Greater University Fund
- Fifty-three books and pamphlets on Abraham Lincoln, from the Estate of O. J. Arnold
- 373 bound periodical engineering volumes and 325 assorted books from the Minneapolis Public Library
- 440 periodicals and books from Knox A. Powell, Minneapolis
- Twenty-eight books on various subjects from Mrs. H. L. Woltman, St. Paul
- Three bound volumes on The Frick Collection from the Frick Art Reference Library, New York.
- Fifty-five rare books from the Botanical Library of Mrs. Roy A. Hunt from the Honorable James F. Bell, Minneapolis
- Ninety-six issues of *Illustrated London News*, 1948-49, from Mrs. Charles S. Pillsbury, Ferndale, Lake Minnetonka
- From R. W. McDaniel, 1416 Northwestern Bank Building, Minneapolis, Minnesota:
 Barbauld, Anna Laetitia. *Female speaker*. 1824
 Cases, Count Las. *Military and political life, character and anecdotes of Napoleon Bonaparte*, 1823
 Boccaccio. *Decameron or Ten Days' entertainment*
 Tenants law or the laws concerning landlords, tenants and farmers, 1777
 Barber, John W. *History and antiquities of New England*, 1847
- From Dr. Raymond N. Bieter, Department of Pharmacology:
Archiv fur experimentelle pathologie und pharmacologie v. 1-79 (unbound)
Archives of internal medicine v. 4, 32-57 (unbound)
- Five miscellaneous medical books
- From the Minnesota Historical Society:
 Transfer of the following papers of President William Watts Folwell:
 The complete files which consist of 12 folders of correspondence, 39 articles and addresses, 2 folders of miscellaneous clippings, 1 folder of notes on Maria Sanford, 7 folders of lecture notes, 2 folders of letters and memorials to the Board of Regents regarding the Folwell plan of organization for the University, 1 folder relating to the Agricultural College, and 5 folders of miscellaneous notes and records
- Charles Denney, St. Paul: *Nation's Heritage* (6 volume set)
- J. Christian Bay, Elmhurst, Illinois: Two extra numbers of the Norwegian newspaper *Morgenbladet* containing a paper written by P. Groth in 1897 on some peculiarities of the language used by Norwegians that have emigrated to America
- For the Kerlan Collection:
 Sixteen books important in the early part of the century from Dr. Irvin Kerlan, Washington, D. C.
 A *Visit From St. Nicholas* (illustrated by Angelo) from Valentino Angelo from Mrs. Carol Brink, St. Paul, Minnesota:
Lad with a Whistle (adult story material from which the book was taken; first manuscript draft; and copy with corrections of the final draft)
Caddie Woodlawn (manuscript draft of several chapters; notes, letters, etc., forming material for the book; and one copy of the final draft)
Magical Melons (manuscript draft)
All Over Town (about half of the final draft of the book)
Anything Can Happen on the River (final draft copy)
- Thirteen books written by him and inscribed to Dr. Kerlan from Raffaello Busoni
- Twelve books (tiny movie stories) signed by Disney and Jane Warner from Walt Disney
- A *Hundred Tuftys* (with pen drawing inscription by Gergely) from Tibor Gergely
- E. R. Gaggin's *Down Ryron Water* (with color inscription by Hader) from Elmer Hader
- The Pig in the Parlor* (inscribed by the Karigs) from Walter Karig
- Fifty-book 1950 exhibition from Katherine Milhous
- Christopher Columbus* (semi-final manuscript corrected in Sperry's handwriting; inscribed copy of the book; special cover page with original sketch; and a letter from Sperry) from Armstrong Sperry
- A *Visit from St. Nicholas* (illustrated by Watson) from Aldren Watson

Artist additions from Harry C. Stubbs, Richmond, Virginia, and Rafaello Busoni,
New York

Artist additions from Lili Cassell, Kew Gardens, New York and Mrs. Lucille Pennell,
Elmhurst, Illinois

Artist additions from Paul Brown, Garden City, New York

ASSIGNMENTS OF PATENT APPLICATIONS, 1950-51

Messrs. Coulter, Hoyt, and Van Deest, Spray Drier, in accordance with terms of the License to Food Equipment Corporation

Serial No. 165,076, Nordahl I. Onstad and Norman J. Foot, Method and Apparatus for Demagnetizing Magnetic Ores Having High Coercive Force

Assignment agreements from Lawrence E. Carpenter, M. A. Muckenheide, and Howard S. Teague, in connection with the Lederle Laboratories contract in effect at Hormel Institute

Serial No. 198,864, Ole Gisvold, Oxidation Process

Serial No. 197,485, Fred Smith, Ralph E. Montonna, and Eli D. Besser, Delignification Process

Assignment agreements from Dr. Thomas B. O'Dell and Dr. Paul B. Hammond, covering work on the Lederle Laboratories Company research on animal diseases

Serial No. 202,326, Edward W. Davis, Method and Apparatus for Heating Solids

Serial No. 214,668, William S. Howell and John V. Irwin, Apparatus for Speech

Instruction

Serial No. 687,654, Otto H. Schmitt, Thermistor High-frequency Ammeters

Serial No. 218,712, Alfred O. C. Nier, Mass Spectrometer Apparatus

SUMMARY OF CASH GIFTS, 1951-52

Description	Number	Amount	Total
Loan funds			
New	2	\$ 19,133.64	
Additions to previous gifts	3	93.00	
			\$ 19,226.64
Scholarship funds			
New	18	\$ 23,103.42	
Additions to previous gifts	67	92,812.53	
			115,915.95
Fellowship funds			
New	16	63,292.00	
Additions to previous gifts	44	156,057.00	
			219,349.00
Prizes			
New	3	5,225.00	
Additions to previous gifts	28	1,500.61	
			6,725.61
Research funds			
New	79	432,478.10	
Additions to previous gifts	119	966,977.29	
			1,399,455.39
Miscellaneous funds			
New	21	109,187.16	
Additions to previous gifts	53	582,078.05	
			691,265.21
Totals	453		\$2,451,937.80

CASH GIFTS, 1951-52

Loan Funds—New

Amount		Year Established
\$ 18,833.64	From the estate of Gertrude Orendorff to establish the Clarence A. Orendorff Fund for assistance to needy students in the Medical School, with the understanding that special consideration be given to Negro students	1951
300.00	From Mrs. Willard L. Burnap for a loan fund for practical nurses	1952
\$ 19,133.64		

Loan Funds—Additions to Previous Gifts

\$ 50.00	Householders Student Loan Fund	1942
40.00	Anne Dudley Blitz Loan Fund	1951
	\$25.00 Alpha Chi Omega	
	10.00 Margaret M. Doty	
	5.00 Dorothea Anderson	
3.00	Law Alumni Loan Fund, through the Greater University Fund	1923
\$ 93.00		

Scholarship Funds—New

Amount		Year Established
\$ 14,379.32	For a scholarship for students in the Law School, in memory of Wilbur H. Cherry, through the Greater University Fund	1952
	\$14,002.16 Through the Greater University Fund	
	125.00 Law Alumni Association	
	200.00 Nat S. Finney	
	52.16 Mr. and Mrs. F. H. Carlton	
1,500.00	From the Magnolia Petroleum Company for a scholarship in the fields of geology, petroleum engineering, and geophysics	1951
1,250.00	For scholarships for students in the Duluth Branch	1951
	\$1,000 Robert Fryberger	
	150 Bernard H. Ridder, Jr.	
	100 A. Reinhold Melander	
1,000.00	From the Minnesota State Federation of Labor, through the Greater University Fund, to establish two scholarships of \$500 each for use in any department or college of the University	1952
1,000.00	From Lester A. Malkerson for a scholarship for appraisal of research and public service of the University	1951
1,000.00	From Fred A. Ossanna, through Greater University Fund, for study of various phases of mass transportation	1952
750.00	From the Military Intelligence Service, Linguist Associates of Hawaii, through the Greater University Fund, for a scholarship for a University of Minnesota graduate student for study at the University of Hawaii	1952
600.00	From International Brotherhood of Electrical Workers for scholarships to be awarded to sons or daughters of members of IBEW local unions affiliated with the Minnesota State Electrical Workers Council	1951
500.00	From the Louis Allis Company for a scholarship in electrical engineering	1952
254.10	From Harold Prehn Foundation, through the Greater University Fund, to establish a scholarship	1951
200.00	From Kappa Sigma Fraternity to establish a scholarship fund to expedite payment of Kappa Sigma Fraternity scholarships awarded to University of Minnesota students	1951
150.00	From the Progressive Club of Minneapolis to establish a scholarship fund for payment of scholarships awarded to students attending the University of Minnesota	1951
100.00	From the Twin Cities Hoo Hoo Club No. 12 for a scholarship in the School of Forestry	1952
100.00	From the Minnesota Press Women (annually) for a scholarship to be awarded to a woman in her junior or senior year majoring in Journalism	1952
100.00	From the Faculty Women's Club to establish a scholarship	1952
90.00	Through the Greater University Fund to establish a scholarship in interior design as a memorial to Johns H. Hopkins	1951
80.00	From the German Department, for two scholarships of \$40 each for students registered in the Deutches Haus	1951
50.00	Sigma Delta Tau Alumni-Serene Harris Abrahams Memorial Scholarship (1950-51)	1951
\$ 23,103.42		

Scholarship Funds—Additions to Previous Gifts

\$ 30,821.50	Henry L. Williams Memorial Scholarship	1949
	\$30,796.50 Through the Greater University Fund	
	25.00 John A. Goldie	
14,000.00	Tozer Foundation, Incorporated	
	\$10,000.00 Undergraduate Scholarship Fund	1947
	4,000.00 Graduate Scholarship Fund	1949
8,434.64	All-University Scholarship Fund (aid to individual students or custody of their personal funds)	1945
	\$2,715.80 Accounts Section, British Embassy	
	1,200.00 Pan American Fund	
	799.00 Standard Bank of South Africa, Limited	
	600.00 Rockefeller Foundation	
	575.00 Hanoeh Besobov, Israel	
	509.49 Bank Melll Iran, Teheran	
	500.00 Zonta International	
	350.00 St. Louis Park Federation of Teachers	
	250.00 Quill and Scroll	
	249.50 Yael Ginzburg, Israel	
	200.00 Bayport Foundation	
	100.00 Board of Education, American Baptist Convention	
	100.00 American Baptist Student Aid Fund	
	100.00 St. Charles Lions Club	
	60.85 A. Reinhold Melander	
	50.00 Mrs. Dorothy Baronofsky	
	25.00 Mrs. Genevieve F. Steefel	
	25.00 Mrs. Alex Ruskin	
	25.00 Newman Foundation	

Amount		Year Established
5,940.70	From Sears Roebuck Foundation	
	\$2,490.70 Scholarship	
	1,725.00 Scholarships (college)	1947
	1,125.00 Scholarships (school)	1937
	600.00 Scholarships (home economics)	1950
3,000.00	John Morse Memorial Foundation Scholarship (through the Greater University Fund)	1950
3,000.00	H. W. Wilson Scholarship Fund (through the Greater University Fund)	1950
3,000.00	Maurice L Rothschild Scholarship Fund from Mrs. Hulda B. Rothschild	1947
2,662.00	Milling Engineering Scholarship Fund (through the Greater University Fund)	1949
2,617.32	Social Service Council Scholarship Fund, through the Greater University Fund	1950
	\$2,168.32 Student Activities Bureau	
	200.00 Social Service Council	
	150.00 John K. Fesler	
	100.00 F. W. Bedford	
	1.00 Through the Greater University Fund	
2,500.00	Iraq Government Scholarship	1949
2,276.25	Department of Surgery Traveling Scholarship	1949
	\$2,270.00 Through the Minnesota Medical Foundation:	
	\$2,000.00 Dr. David Paper	
	100.00 Dr. Wallace P. Ritchie	
	50.00 Dr. Orwood J. Campbell	
	50.00 Dr. William C. Bernstein	
	25.00 Dr. Howard M. Frykman	
	10.00 Dr. Roscoe C. Webb	
	10.00 Dr. L. Haynes Fowler	
	25.00 Dr. William A. Hanson	
	6.25 Dr. L. Haynes Fowler, through the Greater University Fund	
1,600.00	Minnesota Dental Foundation, Incorporated Research Scholarship	1950
1,500.00	Mando Graduate Scholarship Fund	1946
1,000.00	Flour City Architectural Education Fund	1945
750.00	Socony-Vacuum Oil Company Scholarship	1949
700.00	Faith Thompson Scholarship Fund	1948
600.00	National Hillel Commission Scholarship	1944
600.00	R C A Scholarship Fund	1945
500.00	Minneapolis Gas Company Service Scholarship	1948
500.00	Julia Marshall Scholarship Fund, through the Greater University Fund	1949
500.00	Douglas Scholarship	1946
500.00	Phi Upsilon Omicron Alumni Scholarship	1949
500.00	William and Mildred Harris Scholarship Fund	1951
	\$100.00 Maurice L. Melamed	
	100.00 Samuel H. Mason	
	100.00 Mrs. Jacob G. Cohen	
	100.00 Modern Medicine Publications, Incorporated	
	100.00 Sidney Barrows	
400.00	French Government Scholarships	1950
375.00	Northside Pharmacists Scholarship Fund	1950
350.00	Presser Foundation Scholarship Fund	1945
300.00	F. H. Peavey and Company-Van Dusen Harrington Company Undergraduate Scholarship Fund	1947
295.98	Anna Von Helmholz-Phelan Scholarship in Creative Writing	1949
250.00	Dr. E. S. Mariette Scholarship Fund	1950
225.00	Alpha Zeta Traveling Scholarship Fund	1949
225.00	Minnesota State Pharmaceutical Association Scholarship Fund	1917
209.71	William A. O'Brien Scholarship Fund	1947
200.00	Mary Farrell Coffman Scholarship Fund	1945
200.00	Chi Psi Fraternity Scholarship Fund	1946
200.00	John Mars McDonald Memorial Scholarship	1948
160.00	Katharine J. Densford Scholarship Fund	1950
150.00	National Secretaries Association Scholarship Fund	1950
100.00	Minnesota Masquers Scholarship Fund	1948
100.00	University of Minnesota Women's Club of Detroit Scholarship, through the Greater University Fund	1949
100.00	Julia Hess Scholarship Fund	1931
100.00	Northwest Daily Press Association Scholarship	1935
100.00	Minneapolis Women's Advertising Club Scholarship	1947
100.00	Leora E. Cassidy Scholarship, from Comstock Hall Association	1944
100.00	Grace C. Nelson Scholarship	1946
100.00	Anne Dudley Blitz Scholarship Fund	1951
100.00	Students' Section of the Faculty Women's Club Scholarship	1951
100.00	Burpee Award in Horticulture	1946
100.00	Minnesota Garden Flower Society Scholarship Fund in memory of Roger S. Mackintosh	1950
100.00	Sigma Theta Tau, Zeta Chapter Scholarship	1950
100.00	Phi Upsilon Omicron Scholarship	1926

Amount		Year Established
62.02	Class of 1916—Bernie Beirman Fund	1948
60.00	Sigma Alpha Iota Alumnae Group Scholarship Fund	1947
54.22	Robert V. Cram Memorial Scholarship Fund	1948
50.00	Agricultural Faculty Women's Club Scholarship	1923
50.00	Alpha Xi Delta Alumni Association Scholarship Fund	1950
50.00	Alpha Zeta Scholarship Fund	1922
50.00	Home Economics Association Scholarship Fund	1924
34.69	Florence Munson Wilson Memorial Scholarship	
32.50	Anne Fenlason Memorial Scholarship	1950
15.00	Appreciation Scholarship Fund, through the Greater University Fund	1950
6.00	Women's Physical Education Alumni Association Scholarship	1950
5.00	Minnesota Indian Youth Scholarship Fund	1949
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\$ 92,812.53		

Fellowship Funds—New

\$ 16,950.00	From the Social Science Research Council for a fellowship for Andreas G. Papandreou in the School of Business Administration	1952
13,050.00	From Social Science Research Council for assistance to Professor Herbert McClosky in his research program over a three-year period	1951
4,100.00	From Eli Lilly and Company for a post-doctorate fellowship for Ahmed Abu-Shady	1952
3,700.00	From Armour and Company (a year for three years) to support a fellowship for Professor S. R. B. Cooke, School of Mines and Metallurgy, in his study of recovery of fine mineral particles	1952
3,592.00	From Mt. Sinai Hospital Association	
	\$1,872 For a fellowship in Radiology	1952
	1,720 For a fellowship in Surgery	1951
3,000.00	From the Fund for the Advancement of Education of the Ford Foundation for support of pre-doctoral fellowships of \$1,500 each for David Kalman and Myron Kennedy in psychology and history, respectively	1951
3,000.00	From John Cowles Foundation for fellowships for graduate students from Asia	1952
2,600.00	From General Electric Company to establish a fellowship in chemistry	1952
2,500.00	From Minneapolis Grain Exchange to establish a fellowship for the developing of instructional material dealing with grain and grain marketing	1952
2,000.00	For a pre-doctoral fellowship (a year for two years) from Smith, Kline & French Laboratories	1952
2,000.00	From General Mills, Incorporated for support of a graduate fellowship in the field of organic chemistry	1951
2,000.00	From Parke, Davis & Company for a fellowship in chemistry under the direction of Dr. Richard T. Arnold	1952
1,800.00	From the Ethyl Corporation for a graduate fellowship in chemistry	1952
1,500.00	From Dow Chemical Company for a fellowship in chemistry 1952-53	1952
1,500.00	From Chapman Chemical Company for a graduate research fellowship in wood preservation	1952
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\$ 63,292.00		

Fellowship Funds—Additions to Previous Gifts

\$ 58,080.00	Minneapolis General Hospital Fellowships, 1951-52	1931
10,233.00	Affiliated Hospital Fellowships	
	\$6,220 St. Joseph's Hospital Fellowship in Surgery	1950
	2,293 St. Barnabas Hospital Fellowship in Surgery	1946
	1,720 Charles T. Miller Hospital Fellowship in Obstetrics and Gynecology	1946
6,600.00	From the E. I. du Pont de Nemours and Company	
	\$3,300 Postgraduate Fellowship in Chemistry	1946
	3,300 Postgraduate Fellowship in Chemical Engineering	1946
6,500.00	From the American Foundation for Pharmaceutical Education	
	\$4,875 Pharmaceutical Chemistry Fellowship	1947
	1,625 Pharmacognosy Fellowship	1947
6,220.00	From the Sister Elizabeth Kenny Foundation	
	\$4,500 Foundation Fellowship	1949
	1,720 Institute Fellowship in Pediatrics	1949
4,800.00	Procter and Gamble Company Fellowship in Chemical Engineering	1947
4,500.00	Monsanto Chemical Company Graduate Fellowship in Organic Chemistry	1946
4,440.00	Eli Lilly Fellowship in Animal Breeding	1950
4,000.00	Minnesota Mining and Manufacturing Company Fellowship	1946
3,800.00	From the Shell Fellowship Committee	
	\$1,900 Fellowship in Chemistry	1947
	1,900 Fellowship in Geology	1947
3,600.00	Bristol-Myers Company Fellowship	1950
3,440.00	St. Paul Children's Hospital Fellowship in Pediatrics and Research	1945
	\$1,940 Children's Hospital, Incorporated	
	1,500 The Farmer	

Amount		Year Established
3,300.00	United States Rubber Company Pre-doctoral Fellowship in Chemistry	1947
3,300.00	Carbide and Carbon Chemicals Corporation Fellowship in Organic Chemistry	1946
3,000.00	From the Allied Chemical and Dye Corporation	
	\$1,500 Fellowship in Chemistry (plus tuition)	1941
	1,500 Fellowship in Chemical Engineering (plus tuition)	1941
2,250.00	Visking Corporation Fellowship	1951
2,000.00	Buckman Laboratories Fellowship	1948
2,000.00	Monsanto Chemical Company Graduate Fellowship in Organic Chemistry	1946
2,000.00	Westinghouse Educational Foundation Fellowship (a year for two years)	1946
2,000.00	Pillsbury Mills Incorporated Fellowship	1948
1,900.00	Standard Oil Company (Indiana) Graduate Fellowship in Chemical Engineering	1946
1,800.00	Firestone Fund	1934
1,800.00	American Cyanamid Company Graduate Fellowship	1951
1,653.00	Norwegian-American Graduate Fellowship	1945
1,625.00	California Company Fellowship	1951
1,500.00	Kimberly-Clark Corporation Graduate Fellowship in Forestry	1950
1,500.00	Watumull Foundation Fellowship	1951
1,500.00	Mando Graduate Research Fellowship	1946
1,407.00	Alpha Phi Cardiac Fellowship	1947
1,200.00	Abbott Laboratories Fellowship in Chemistry	1945
1,200.00	American Association of University Women—Minnesota State Division Fellowship	1943
750.00	E. J. Longyear Company Graduate Fellowship in Economic Geology	1946
750.00	Minneapolis Women's Club Fellowship	1948
719.00	Miller Hospital Fellowship Fund from Dr. Edward P. Burch	1941
500.00	Minnesota State Pharmaceutical Association Graduate Fellowship	1931
100.00	Clara Ueland Fellowship Fund, through Greater University Fund	1928
90.00	John Torrance Tate Fellowship Fund from Dr. John Bardeen	1950
\$156,057.00		

Prizes—New

\$ 5,000.00	Bequest in will of Harry J. Davis for awards of merit to interns or residents of the University Hospitals	1951
200.00	From A. C. Ochs Brick and Tile Company for a prize in the School of Architecture	1951
25.00	From the Women's Auxilliary of the American Veterinary Medical Association for an annual award to the outstanding senior in the School of Veterinary Medicine	1952

\$ 5,225.00

Prizes—Additions to Previous Gifts

\$ 300.00	Thomas F. Ellerbe Prize in Architecture	1949
200.00	C. H. Johnston Prize in Architecture	1945
200.00	Magney, Tusler and Setter Prize	1948
195.61	School of Architecture Alumni Fund	1936
175.00	John S. Pillsbury Prize in Speech	Prior to 1926
100.00	Frank H. Peavey Prize	1944
100.00	Southern Minnesota Medical Association	1930
85.00	American Society of Mechanical Engineers, Twin Cities Section	1924
60.00	Northwestern Section of American Society of Civil Engineers Prize	1924
50.00	English Composition Awards in Composition	1949
35.00	Minnesota Section of American Institute of Electrical Engineers Prize	
	Alpha Chi Sigma Twin City Alumni Association Prize	1929
	Alpha Kappa Gamma Prize (key)	1945
	Alpha Kappa Psi Junior Scholarship Medallion	1937
	Alpha Kappa Psi Junior Scholarship (key)	1937
	Eta Kappa Nu Prize (\$5 handbook)	1931
	Alpha Rho Chi Medal	
	American Institute of Architects Medal	
	Chemistry Faculty Prize (\$25 in books)	1946
	Chi Epsilon Prize (\$9 in books)	
	Delta Sigma Phi Scholarship (key)	1929
	Lehn and Fink Medal	1923
	Gargoyle Club Prize (\$25 in books)	
	Sigma Delta Chi Scholarship Award	
	Pi Tau Sigma Prize	
	Rho Chi Award in Pharmacy (one year's membership in American Pharmaceutical Association)	1939
	Kappa Epsilon Award	1937
	Phi Lambda Upsilon Prizes	1926

\$ 1,500.61

Research Funds—New

Amount		Year Established
\$ 75,592.00	From the United States Public Health Service	
\$16,293.00	For research on allergic encephalomyelitis under the direction of Dr. Lewis Thomas (medicine)	1951
10,968.00	For research on dioxide concentration under the direction of Dr. Richard L. Varco (medicine)	1951
9,180.00	For research on influence of heat and cold on the central nervous system under the direction of Dr. Ernst Gellhorn (medicine)	1951
7,327.00	For research on dental caries under the direction of Dr. David Mitchell (dentistry)	1951
7,236.00	For research on metabolism of perfused mammalian skeletal muscle under the direction of Dr. Nathan Lifson (medicine)	1952
6,309.00	For research on gastric urease under the direction of Dr. Arnold J. Kremen (medicine)	1952
6,000.00	For research on bone growth after poliomyelitis under the direction of Dr. Frederic J. Kottke (medicine)	1951
4,870.00	For study of renal function in dairy cattle under the direction of Dr. A. F. Sellers (agriculture)	1951
3,953.00	For research on nitrification of soils under the direction of Dr. E. L. Schmidt (agriculture)	1951
2,916.00	For study of inorganic ions under the direction of Dr. Charles W. Carr (medicine)	1951
540.00	For a research fellowship on endocarditis and glomerulonephritis for Dr. Robert N. Hammerstrom (medicine)	1951
57,000.00	From an anonymous donor to establish a research on coronary thrombosis (medicine)	1951
45,000.00	From the Minnesota Division, American Cancer Society, Incorporated, in support of research as follows:	
\$20,000.00	Cancer Biology Staff Development (medicine)	1951
15,000.00	Physiological Determinants in Carcinogenesis (medicine)	1951
10,000.00	Special Research (medicine)	1951
25,185.00	For research on the toxicity of oil cake under the direction of the Division of Veterinary Medicine (agriculture)	1951
\$21,000.00	E. I. du Pont de Nemours and Company	
1,420.00	A. E. Staley Manufacturing Company	
850.00	Funk Brothers Seed Company	
775.00	Crown Iron Works Company	
570.00	Soybean Plant Division, Farmers Cooperative Elevator Association	
570.00	Farmers and Merchants Milling Company	
16,200.00	From the Life Insurance Medical Research Fund for studies of perfused organs, under the direction of Dr. Nathan Lifson (medicine)	1952
16,000.00	From the Millers' National Federation for research on the causes, effects on milling and baking quality, and means of control of sick wheat (agriculture)	1952
12,562.00	From the Sister Elizabeth Kenny Foundation, Incorporated, for research on Lansing poliomyelitis virus, under the direction of Dr. Raymond N. Bieter (medicine)	1951
10,635.00	To establish the Grassland Research Fund for various researches in land use and pasture management through the Greater University Fund (agriculture)	1951
\$2,000.00	Northrup King and Company	
1,500.00	George A. Hormel and Company	
1,000.00	St. Paul Union Stockyards Company	
1,000.00	Central Livestock Order Buying Company	
750.00	Land O'Lakes Creameries, Incorporated	
750.00	Wilson and Company	
500.00	Smith-Douglass Company Incorporated	
500.00	Minnesota Farm Bureau Service Company	
500.00	Minnesota Farm Bureau Service Company	
500.00	Twin City Seed Company	
400.00	Ramy Seed Company	
250.00	Minnesota Seed Dealers Association	
250.00	Peterson-Biddick Company	
250.00	F. H. Peavey and Company	
200.00	Cargill, Incorporated	
150.00	Stock Yards National Bank	
100.00	Barzen Company	
25.00	Seldon-Watts Seed Company	
10.00	Through the Greater University Fund	
10,000.00	From the estate of Helen Bunn for research in human genetics (medicine)	1951
9,710.00	From the Louis W. and Maud Hill Family Foundation for a study of intra-family relations in farm, village, and small city areas in Minnesota (sociology)	1952
8,698.00	From George A. Hormel and Company for research on animal fats oils, under the direction of Dr. W. O. Lundberg (agriculture)	1951

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Amount		Year Established
8,600.00	From the National Oak Wilt Research Committee for studies on the epidemiology of oak wilt, under the supervision of the Division of Plant Pathology (agriculture)	1951
8,016.67	From the Committee for Economic Development for support of the Business Executive Research Committee Project (business administration)	1951
7,505.00	Through the Greater University Fund, for research on investigations in tuberculosis, under the direction of Dr. J. A. Myers (medicine)	1951
	\$7,500.00 Minnesota Public Health Association (annually)	
	5.00 Through the Greater University Fund	
6,900.00	From the National Science Foundation for research on force constants, under the direction of Dr. Bryce L. Crawford (technology)	1952
6,500.00	From the E. I. du Pont de Nemours and Company for research on the structure of cellulose, under the direction of Professor Ralph E. Montonna (technology)	1951
6,000.00	From the Minnesota Turkey Growers Association for research on salmonellosis infections of turkeys (agriculture)	1951
6,000.00	From the National Dairy Council for research on metabolism and deposition of fatty acids, under the direction of Dr. R. T. Holman, Hormel Institute (agriculture)	1951
5,990.00	To establish a research on the fertility of stud bulls under the direction of the Agricultural Experiment Station	1952
	\$1,950.00 Land O'Lakes Creameries	
	1,200.00 Minnesota Valley Breeders Cooperative	
	1,200.00 American Breeders Service	
	1,100.00 Southern Minnesota Breeding Federation	
	540.00 Northwest Breeders Cooperative	
5,983.60	From the Research Corporation	
	\$3,500.00 For research on rotated electrodes under the direction of Dr. I. M. Kolthoff	1951
	1,896.09 To transfer balance of fund awarded to Dr. R. T. Holman, Hormel Institute, at the University of Texas, for research on the displacement separation of lipids (agriculture)	1951
	587.51 To transfer grant to Dr. Stephen Spurr, to continue forestry research started at Harvard University (agriculture)	1951
5,000.00	From Nutrition Foundation, Incorporated (a year for two years) for research on reducing diets under the direction of Drs. Ancel Keys and Henry L. Taylor (medicine)	1952
4,320.00	From the Louis W. and Maud Hill Family Foundation for research on state income tax administration in the states under the direction of Dr. Walter W. Heller (economics)	1952
4,200.00	From the Minnesota Dental Foundation, Incorporated to provide for basic research equipment for the School of Dentistry (dentistry)	1951
4,000.00	From the National Live Stock and Meat Board for research on the biochemistry of fatty acids under the direction of Dr. Ralph T. Holman, Hormel Institute (agriculture)	1951
3,375.00	From the Rockefeller Foundation to enable Dr. Leon Festinger to serve for three months as a consultant to the Institute for Preventive Medicine in Leiden, The Netherlands	1951
3,283.20	From the Louis W. and Maud Hill Family Foundation, through the State University of Iowa, to provide the salary of two graduate assistants for research in speech pathology	1951
3,300.00	From the Minnesota Medical Foundation for research in the Division of Urology under the direction of Dr. C. D. Creevy (medicine)	1952
3,000.00	From Eli Lilly and Company for research on antibiotics under the direction of Dr. Wesley W. Spink (medicine)	1952
3,000.00	From the L. D. Caulk Company for research on dental restorative materials (dentistry)	1952
3,000.00	From Burroughs Wellcome and Company for support of antibiotic investigations under the direction of Dr. Wesley W. Spink (medicine)	1952
3,000.00	From the Research Corporation for research on reducing diets under the direction of Dr. Ancel Keys and Dr. Henry L. Taylor (medicine)	1952
2,800.00	From the Western Condensing Company for research on the use of dried whey products in poultry nutrition (agriculture)	1951
2,736.00	From the National Academy of Sciences for research on reasons why potentially able students fail to continue in school, under the direction of Dr. C. Gilbert Wrenn and Dr. Ralph Berdie (Graduate School)	1951
2,600.00	From Cargill, Incorporated for research on the relations of molds to sick wheat (agriculture)	1952
2,500.00	From the Squibb Institute for Medical Research for anesthetic research under the direction of Dr. Frederick H. Van Bergen (medicine)	1951
2,500.00	From Mrs. George Tweed for research on liver and biliary tract disease under the direction of Dr. C. J. Watson (medicine)	1952
2,500.00	From General Mills Research Laboratories for research on iron ore flotation by the Department of Metallurgy (technology)	1951

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Amount		Year Established
2,500.00	From Merck and Company, Incorporated for research on swine nutrition under the direction of the Division of Animal Husbandry (agriculture)	1952
2,300.00	For a study of blood diseases under the direction of Dr. C. J. Watson (medicine)	1951
	\$2,000.00 Mrs. Rose R. Peck	
	300.00 Sigma Delta Tau Mothers Club	
2,000.00	From the Abbott Laboratories for research on the effects of the addition of arsenilic acid to a practical ration for growing pigs (agriculture)	1952
2,000.00	From Mrs. Leland Schubert and Dr. Paul Dwan, through the Minnesota Medical Foundation, for cardiovascular research under the direction of Dr. Irvine McQuarrie (medicine)	1952
2,000.00	From the Research Corporation for research on low temperature thermodynamic and physical properties of air and associated basic gases under the direction of Dr. Newman A. Hall (technology)	1951
2,000.00	From the Nutrition Foundation (annually for 1952 and 1953) for research on mineral elements under the direction of Dr. Paul D. Boyer	1951
2,000.00	From the Lederle Laboratories Division, American Cyanamid Company for research on aureomycin (medicine)	1952
1,931.30	From Winthrop-Stearns, Incorporated for research on synthetic antiseptic detergents under the direction of Dr. James M. Shaffer (medicine)	1952
1,500.00	From the National Soybean Processors Association for research on weed control in soybeans (agriculture)	1952
1,500.00	From the Lederle Laboratories Division, American Cyanamid Company for a study of the intestinal microflora of calves, swine, and poultry (agriculture)	1951
1,000.00	From the Minnesota Turkey Growers Association for research on bluecomb disease of turkeys (agriculture)	1951
1,000.00	From Smith, Kline and French Laboratories for use of Dr. Wesley W. Spink in his research on penicillin (medicine)	1951
1,000.00	From Schenley Laboratories, Incorporated for research on brucellosis under the direction of Dr. Wesley W. Spink (medicine)	1952
1,000.00	From Burgess Vibrocrafters, Incorporated for research work on tattoo identification of blood grouping under the direction of Dr. Henry E. Michelson (medicine)	1952
1,000.00	From the Clay County Soil Conservation District, through the Greater University Fund, for support of researches under the direction of the Division of Soils (agriculture)	1952
1,000.00	From I. S. Joseph (a year for three years) for research in neurology under the direction of Dr. A. B. Baker (medicine)	1952
900.00	From the National Foundation for Infantile Paralysis, Incorporated for laboratory and incidental expenses in connection with research fellowship award to Dr. Paul J. Lowry (medicine)	1951
833.33	From the Union Carbide and Carbon Corporation for payment of salary of Lewis Katz in connection with his research on the structure of diketene (medicine)	1951
780.00	From the National Science Foundation for research on plant fossils under the direction of Dr. John W. Hall (botany)	1952
517.00	Through the Greater University Fund, for research in chemical engineering under a fund given in memory of Dr. Charles A. Mann (technology)	1951
	\$500.00 Flox Company, Incorporated	
	17.00 Four donors	
250.00	From the Ciba Pharmaceutical Products, Incorporated for research on adrenal function under the direction of Dr. Irwin H. Kaiser (medicine)	1951
175.00	From the Spencer Chemical Company for research on the value of nitrogen side-dressing for corn (agriculture)	1952
100.00	From Agsco Chemical, Incorporated for the support of experimental projects with fertilizers at the Crookston Station (agriculture)	1951
\$432,478.10		

Research Funds—Additions to Previous Gifts

\$417,251.00	From the United States Public Health Service	
	\$33,998.00 For research on ageing in relation to diet (medicine)	1947
	30,000.00 For research on diet, activity and hypertension (medicine)	1951
	25,579.00 For research on mammary cancer in mice (medicine)	1948
	25,000.00 For cancer teaching and clinical cancer research (medicine)	1948
	19,619.00 For research on experimental endocarditis (medicine)	1950
	18,727.00 For research on rheumatic fever complex (medicine)	1949
	17,500.00 For research on ultrasonic pulses (medicine)	1950
	16,541.00 For interauricular research (medicine)	1950

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Amount		Year Established
15,618.00	For research in etiology of acid peptic ulcer (medicine)	1947
15,600.00	For polarographic studies of cancer biology (medicine)	1948
15,000.00	For cancer research (medicine)	1946
15,000.00	For research on mouse mammary cancer and mouse leukemia (medicine)	1948
14,424.00	For research on the metabolism and composition of the skeleton (medicine)	1947
12,000.00	For research in toxic substances in water (medicine)	1947
11,084.00	For research on fluorescein dyes (medicine)	1948
9,973.00	For research on parametric electrocardiograms (physics)	1949
9,532.00	For research on vitamins and amino acids (medicine)	1950
9,401.00	For research on cancer on the steroidal mechanism (medicine)	1950
9,093.00	For research on drugs (medicine)	1949
9,000.00	For studies on the C-reactive proteins (medicine)	1951
8,850.00	For research on conjugation of steroids in the body (medicine)	1948
8,717.00	For research on the central nervous system (medicine)	1951
8,000.00	For studies on the inhibition of hyaluronidase (medicine)	1949
6,993.00	For research on pulmonary hypertension (medicine)	1950
6,026.00	For research on vital staining (medicine)	1950
6,000.00	For an analysis of adrenal cells measured by X-ray (medicine)	1950
5,374.00	For research on endocrine glands of the fetus (medicine)	1950
5,317.00	For research on the influence of aureomycin upon Vitamin B synthesis (medicine)	1951
5,000.00	For research on gastric mucosa (medicine)	1950
4,838.00	For research on the reactions of the hepatic parenchyma in injury and repair (medicine)	1948
4,404.00	For research on nutritional requirements of the early embryo (medicine)	1950
4,330.00	For research on the biology of human breast cancer (medicine)	1948
4,320.00	For research on experimental diabetes mellitus (medicine)	1950
3,296.00	For research on arteriosclerosis in diabetes (medicine)	1949
3,097.00	For research on bacteria in unsaturated fatty acids (agriculture)	1950
112,725.00	From the American Cancer Society	
\$50,000.00	For cancer research (medicine)	1949
25,000.00	For cancer research (cortisone and ACTH) (medicine)	1950
10,000.00	For research on the mammary tumor milk agent (medicine)	1946
8,000.00	For research on the mammary milk agent in mice (medicine)	1946
7,800.00	For rabbit cancer research (medicine)	1946
6,925.00	For research on the genetics of human breast cancer (medicine)	1948
5,000.00	For research on mammary cancer in mice (medicine)	1946
61,925.00	From the National Foundation for Infantile Paralysis, Incorporated	
\$53,972.00	For research on host cell-virus relationship (medicine)	1949
4,635.00	For medulla studies (medicine)	1949
2,395.00	For public health research (medicine)	1950
923.00	For research in physiology (medicine)	1949
55,054.18	For the Malignant Disease Research Fund (medicine)	1946
\$25,000.00	Louis W. and Maud Hill Family Foundation	
14,337.75	Through the Minnesota Medical Foundation	
\$5,000.00	Archie D. Walker	
2,490.00	Dr. Richard L. Varco	
2,000.00	Carl W. Jones	
1,500.00	David Paper	
1,000.00	John C. Benson	
655.00	3 donors (urology)	
500.00	Mr. and Mrs. Gust C. Roos	
250.00	Charles J. Upin	
145.75	Roger L. Nordby and Sheldon Blair	
597.00	Minnesota Medical Foundation	
100.00	Gerald T. Mullin	
100.00	Joe Soiney	

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Amount		Year Established
5,000.00	William H. Thompson (Paul J. and Ruth Thompson Cancer Research)	
2,000.00	Bequest in will of Eglantine M. Weaver	
1,734.98	Estate of Ethel F. Smith	
1,250.00	Anonymous donor	
696.50	54 donors	
649.95	Pipestone County Rural Community Chest, Incorporated	
500.00	Lax Electric Company, Incorporated (Dr. Samuel Hirshfeld Memorial Fund)	
500.00	Victor F. Rotering	
500.00	Newspaper Guild of the Twin Cities (Caroline Clogston Memorial Fund for Cancer Research)	
500.00	Ogden A. Confer	
350.00	Mrs. Ernest E. Cowan	
300.00	Gertrude M. Gilman	
300.00	Frank A. Nelson (Tillie V. Nelson Fund)	
250.00	Hoffman-LaRoche Company, Incorporated (urology)	
250.00	W. J. Kay (William J. and Lois C. Kay Fund)	
200.00	Mrs. E. J. Ajax (Erick J. Ajax Memorial Fund)	
200.00	Louis Melamed	
135.00	Emil Hanson	
100.00	Robert A. Rice	
100.00	Stanley Berglund	
100.00	Mrs. Francis Minda	
100.00	Friends of Mrs. Lillian Dickman Bunde	
45,200.00	For the Minnesota Heart Association Cardiovascular Research Fund (medicine)	1950
	\$45,000.00 Minnesota Heart Association	
	200.00 Students of St. Olaf College	
36,500.00	From Lederle Laboratories Division, American Cyanamid Company	
	\$8,000.00 For research on animal protein factor supplement (agriculture)	1950
	7,500.00 For research on virus diseases in swine (agriculture)	1949
	7,500.00 For Fluid Research Fund (medicine)	1951
	4,500.00 For research in animal diseases (agriculture)	1944
	4,500.00 For research on brucellosis (medicine)	1948
	4,500.00 For research on chemotherapeutic agents in animal diseases (agriculture)	1944
17,792.00	Minnesota Cancer Society Reoperative Lymphnode Research (medicine)	1951
17,533.26	Star and Tribune Newspaper Studies Fund (journalism)	1944
16,000.00	General Mills Radio and Television Studies (journalism)	1950
15,335.00	Life Insurance Medical Research in Hypertension (medicine)	1946
15,000.00	E. I. du Pont de Nemours and Company Chemistry Research (technology)	1949
15,000.00	Damon Runyon Memorial Fund—Cancer Reoperative Studies (medicine)	1951
11,100.00	G. Nelson Dayton Fund for Cancer Research—Malignant Disease Fund (medicine)	1951
	\$10,000.00 Donald C. Dayton (transferred from Naval Science Building Fund, 1951)	
	1,000.00 Bruce B. Dayton, through the Minnesota Medical Foundation	
	100.00 Mrs. Grace B. Dayton, through the Minnesota Medical Foundation	
10,536.00	Minnesota Society for Crippled Children Fund—Research on Rh Haptens (medicine)	1949
9,414.00	American Spice Trade Association (agriculture)	1950
7,300.00	American Dry Milk Institute Research (agriculture)	1942
6,000.00	Corn Industries Research Foundation Studies on Starch (agriculture)	1950
5,700.00	Weatherstrip Research Institute Research (technology)	1949
5,240.00	Williams-Waterman Nutrition Fund (agriculture)	1950
5,180.97	Society for Preservation and Encouragement of Barbershop Quartette Singing in America—Medical Research Fund, through the Greater University Fund (medicine)	1951
5,000.00	Corn Products Refining Company Residual Sugars in Bread Research (technology)	1948
5,000.00	Helen Hay Whitney Foundation Research in the field of rheumatic fever (medicine)	1948
3,812.00	Louis W. and Maud Hill Family Foundation Research on Cerebral Palsy (medicine)	1950
3,700.00	Research Corporation—Williams-Waterman Fund Research on Amino Acids (medicine)	1951
3,600.00	Dr. Salsbury's Laboratories Research	1948
3,500.00	Refrigeration Research Foundation and American Dairy Association Fund	1949
3,000.00	Federation of Paint and Varnish Production Clubs Research (technology)	1946
3,000.00	John H. Briggs Porphyrin Research (medicine)	1950

Amount		Year Established
3,000.00	Sterling-Winthrop Research Institute on Lithospermum Ruderale (medicine)	1950
2,719.00	Land O'Lakes Creameries, Incorporated Artificial Insemination (agriculture)	1950
2,710.00	Minnesota Division, American Cancer Society Incorporated, Tumor Research (medicine)	1946
2,500.00	Flora Rosenblatt Fund for Cancer Research, through the Greater University Fund (medicine)	1944
2,500.00	Merck and Company, Incorporated Research on Poultry Rations (agriculture)	1949
2,400.00	American Society of Heating and Ventilating Engineers Research on Panel Heating (technology)	1950
2,250.00	Dr. Henry K. Beecher Fund Study Relating to Anesthesia Deaths, from Massachusetts General Hospital (medicine)	1948
2,250.00	Soy Food Research Council Research in Bakery Products (agriculture)	1945
2,025.88	Midwest Barley Improvement Fund (agriculture)	1947
2,000.00	American Society of Heating and Ventilating Engineers Research on Solar Energy (technology)	1950
2,000.00	Nutrition Foundation Vitamin E Research (annually for 1952 and 1953) (medicine)	1946
2,000.00	Northwest Feed Manufacturers Research Fund (agriculture)	1949
2,000.00	Spencer Chemical Company Fund	1950
2,000.00	B. F. Nelson Research Fund, through the Minnesota Medical Foundation (medicine)	1947
2,000.00	Sulphite Pulp Manufacturer's Research League, Incorporated Research on Torula Yeast (agriculture)	1950
2,000.00	August L. Searle Fund for Surgical Research, through the Greater University Fund (medicine)	1938
1,800.00	W. A. Cleary Corporation Fund (agriculture)	1951
1,800.00	Milk Distributors' Research Fund (agriculture)	1936
1,500.00	American Academy of Allergy Research Fund (agriculture)	1948
1,500.00	Insulation Board Institute Research (technology)	1944
1,299.00	Minnesota Society for Crippled Children Fund—Research on Rh Haptens (medicine)	1949
1,000.00	Austin S. Cargill Fund for Surgery Research—Malignant Disease Research Fund (medicine)	1948
1,000.00	Hawaiian Sugar Planters' Association Research (agriculture)	1948
1,000.00	Erie Mining Company Research Fund (agriculture)	1948
674.00	Heart Disease Research Fund (medicine)	1948
500.00	Experimental Medical Research Fund from the Dietene Company (medicine)	1942
500.00	Tennessee Corporation Fungicide Fund (agriculture)	1944
500.00	Southern Alkali Corporation—Weed Control Research from Columbia-Southern Chemical Corporation (agriculture)	1951
350.00	Richard L. Varco Fund for Surgical Research (medicine)	1949
	\$200.00 Mrs. Maudie L. Fry	
	150.00 Dr. Richard L. Varco	
275.00	Neurosurgery Research Fund from the Minnesota Medical Foundation (medicine)	1947
212.00	St. Joseph's Hospital Fund for Surgical Research (medicine)	1950
179.00	Research on Brain Metabolism (medicine)	1941
100.00	Clarence Dennis Fund for Surgical Research from E. M. Schleicher (medicine)	1947
25.00	Industrial Relations Center Research (business administration)	1949
5.00	Silas McClure Medical Research Fund (medicine)	1950
5.00	John J. Bittner Cancer Research Fund, through the Greater University Fund (medicine)	1948
Equipment and fuel	From the Northwest Hydrogas Company for the Flame Cultivation Fund (agriculture)	1949
\$966,977.29		
Miscellaneous Funds—New		
\$ 50,000.00	From Mrs. Archie D. Walker to cover the payment of a Cobalt 60-Beam Therapy Unit, accepted by the Board of Regents on January 11, 1952	1952
23,415.00	From the National Fund for Medical Education, for support of Medical School instruction	1951
10,475.00	Conference on Savings and Inflation	1951
	\$2,500.00 Minnesota Clearing House Association	
	500.00 Minneapolis-Honeywell Regulator Company	
	500.00 Northrup King and Company	
	500.00 General Mills, Incorporated	
	500.00 Deere and Webber	
	500.00 Minneapolis Star and Tribune	
	500.00 Northwestern National Life Insurance Company	
	500.00 The Dayton Company	
	500.00 Minnesota Mutual Life Insurance Company	
	250.00 International Milling Company	

DIVISIONS OF BUSINESS ADMINISTRATION

Amount		Year Established
250.00	Northern States Power Company	
250.00	Cargill, Incorporated	
250.00	Pillsbury Mills, Incorporated	
250.00	Twin City Federal Savings and Loan Association	
200.00	Minneapolis-Moline Company	
200.00	George A. Hormel and Company	
200.00	St. Paul Fire and Marine Insurance Company	
200.00	Minnesota Valley Canning Company	
200.00	Minnesota Paints, Incorporated	
200.00	Archer-Daniels Midland Company	
150.00	Harris, Upham and Company	
150.00	Merrill, Lynch, Pierce, Fenner and Beane	
100.00	Zinsmaster Bread Company	
100.00	First Federal Savings and Loan Association	
100.00	Blyth and Company	
100.00	Munsingwear, Incorporated	
100.00	Red Owl Food Stores	
150.00	Piper, Jaffray and Hopwood	
100.00	J. M. Dain and Company	
100.00	Minneapolis Gas Company	
100.00	B. F. Nelson Manufacturing Company	
100.00	D. W. Onan and Sons, Incorporated	
100.00	John Leslie Paper Company	
50.00	Kalman and Company, Incorporated	
25.00	Harold E. Wood and Company	
5,000.00	From General Mills, Incorporated to apply toward the publication of <i>Flour for Man's Bread: A History of Milling</i>	1951
4,000.00	From the Eliza A. Drew Memorial Fund, Incorporated, for construction and equipment of a Pediatric Heart Research Laboratory	1952
2,880.00	From Professor Emeritus Henry A. Erikson, through the Greater University Fund, to establish a lectureship in physics	1951
2,500.00	From M and R Laboratories, Incorporated to defray travel and hotel expenses of guest lecturers and invited discussants at the Symposium on Potassium Metabolism	1952
2,500.00	From anonymous donors for publication of the autobiography of Elizabeth Wallace	1951
1,500.00	From the World Health Organization for expenses in connection with the Brucellosis Research Center, Geneva, Switzerland, under the direction of Dr. Wesley W. Spink	1952
1,235.81	From the Student Organization Account, Duluth Branch, to apply on the purchase of a Baldwin Grand Piano	1951
1,200.00	From the Sandoz Chemical Works, Incorporated for use of Dr. Frederic J. Kottke on his trip to the International Congress of Physical Medicine	1952
1,000.00	From the Carnegie Endowment for International Peace to apply towards expense of producing a University Press book on <i>Community Education in World Affairs</i>	1951
1,000.00	From Cathy, Incorporated for advancement of radio and television work at the University	1952
1,000.00	From Mrs. George P. Tweed for the Tweed Art Gallery	1952
601.00	From various donors, through the Greater University Fund, to establish a fund for furthering the cause of teacher education in memory of Wesley E. Peik	1952
350.00	From the Hennepin County Tuberculosis Association for support of a teaching program for industrial education of occupational therapy	1952
250.00	From the Food Law Institute, Incorporated for lectures on the Food and Drug Law	1952
141.35	From the Duluth Branch Graduating Class of 1951 for the purchase of furnishings for the future student union on the new campus	1951
100.00	From Dr. Willis A. Redding for a fund for the purchase of equipment for the Mayo Memorial	1951
29.00	From the Danforth Foundation, through Dean Richard L. Kozelka, to establish a fund for an inter-religious reading room	1951
10.00	From Owen Sletten for the School of Public Health budget for the purchase of books for the School of Public Health	1952
\$109,187.16		

Miscellaneous Funds—Additions to Previous Gifts

\$202,996.00	From the United States Public Health Service	
\$58,295.00	For the advanced mental hygiene program	1947
49,998.00	For training of psychiatric nurses	1947
25,888.00	For training of psychiatric social workers	1947
14,000.00	For cardiovascular teaching	1949
13,896.00	For training in advanced psychiatric social work	1949
11,154.00	For training in neurology	1950
7,525.00	For psychiatric training	1947
7,481.00	For cancer nursing and control	1949
6,000.00	For training in clinical psychology	1947
5,000.00	For undergraduate training in dentistry	1948
3,759.00	For training in neuro-anatomy	1949

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Amount		Year Established
98,292.00	W. K. Kellogg Foundation Nursing Service Administration Work (five-year program)	1951
65,000.00	American Legion Memorial Heart Research Professorship	1948
41,396.00	Ancker Hospital Graduate Medical Education Fund	1950
35,000.00	Mayo Memorial Fund, from the Minnesota Division, American Cancer Society	1944
25,000.00	Variety Club Heart Hospital Fund	1944
23,600.00	School of Nursing—special funds	1951
	\$5,000.00 Minnesota Division, American Cancer Society	
	5,000.00 Tozer Foundation	
	5,000.00 Minneapolis Foundation	
	4,400.00 Home and Community Department, Minnesota Farm Bureau Federation Women's Organization	
	1,000.00 Bayport Foundation	
	750.00 Oliver Iron Mining Company	
	750.00 Missabe and Iron Range Railway Company	
	500.00 S. R. Kirby	
	350.00 Minnesota Power and Light Company	
	250.00 Northern Drug Company	
	250.00 Elizabeth M. Congdon	
	150.00 Andresen-Ryan Coffee Company	
	100.00 Joseph G. Sellwood and Company	
	100.00 Kelley-How-Thomson Company	
20,959.70	Cancer Detection Clinic	1947
	\$20,000.00 Minnesota Division, American Cancer Society	
	759.70 57 donors	
	200.00 Student body of St. Olaf College	
16,777.63	Crippled Child Relief, Incorporated Rehabilitation Center	1951
14,399.10	4-H Club Fund	1931
	\$2,000.00 Great Northern Railway	
	1,600.00 Standard Oil Company (Indiana)	
	1,550.00 National Committee on Boys and Girls Club Work	
	1,500.00 Minneapolis Star and Tribune	
	1,000.00 Federal Cartridge Corporation	
	965.75 Minneapolis, St. Paul and Sault Ste. Marie Railroad Company	
	635.00 Northern Pacific Railway Company	
	600.00 Land O'Lakes Creameries	
	560.00 United States Rubber Company	
	500.00 Minnesota Bankers Association	
	450.00 Farm Underwriters Association	
	325.00 Chicago and North Western Railway Company	
	275.00 Chicago, Milwaukee, St. Paul and Pacific Railway Company	
	225.00 Northern States Power Company	
	217.60 Minnesota Rural Youth Federation	
	200.00 Kellogg Company	
	200.00 J. R. Watkins Company	
	195.00 Chicago, Rock Island and Pacific Railway Company	
	168.75 Mutual Service Insurance Company and Midland Coop- erative Wholesale	
	150.00 Pride Hybrid Company	
	140.00 Cudahy Packing Company	
	131.25 Republic Steel Corporation	
	125.00 Southern Minnesota Broadcasting Company	
	100.00 Coolerator Company of Duluth	
	100.00 King Midas Flour Mills	
	77.00 George A. Hormel Company	
	70.00 The Dairy Supply Company	
	70.00 The Webb Publishing Company	
	70.00 Columbia Broadcasting System, Incorporated	
	67.00 Wilson & Company, Incorporated	
	50.00 Minnesota Garden Flower Society	
	41.75 Anoka County 4-H Leaders Council	
	30.00 Portland Cement Association	
	10.00 Central Livestock Association	
6,500.00	William A. O'Brien Professorship in Cancer Research	1948
6,222.56	Heart Hospital Equipment Fund	1950
	\$4,922.56 From 206 donors	
	1,000.00 Albert F. Forman, through the Variety Club of the Northwest, in memory of Mitchell Silverman	
	200.00 Clarence R. Benrick	
	100.00 Marck Yarosh, through Powers Dry Goods Company	
3,616.00	Friends of the University Library	1944
	\$3,463.00 Mr. and Mrs. James Ford Bell	
	150.00 Through the Greater University Fund	
	3.00 Alden A. Potter	
3,595.00	Elizabeth Kenny Institute—attending pediatrician	1949
2,918.75	Southwest Minnesota Farm Management Association—Agriculture Extension Fund	1950
2,500.00	SPAN (Student Project for Amity Among Nations)	1950
	\$2,500.00 Minneapolis Gas Company	

Amount		Year Established
2,000.00	Minnesota State Department of Social Security—Mental Health Survey	1950
1,690.00	Booth Memorial Hospital	1940
1,300.00	Minnesota Jewish Council 4-H Club Fund	1945
1,215.00	Minneapolis Star and Tribune Fund—School of Journalism	1950
1,000.00	State of Minnesota, Commissioner of Mental Health, Workshop in Public Health	1950
1,000.00	Minnesota Medical Foundation, E. T. Bell Fund, from Mrs. Joseph L. Linoff, through the Greater University Fund	1947
1,000.00	Collegiate Crops Judging Team Fund, from F. H. Peavey and Company, through the Greater University Fund	1950
866.52	Dental Service Fund (formerly Alfred Owre Memorial Fund in Dentistry)	1949
516.00	Mayo Memorial Equipment Fund	1944
	\$500.00 Dr. Carl W. Waldron	
	16.00 2 donors	
500.00	Minnesota Dairy Technology Society Fund, through the Greater University Fund	1950
408.50	J. C. Litzenberg Memorial Room Fund	1950
358.00	Frank K. Walter Lecture Fund, through the Greater University Fund	1950
290.30	Warren Waite Memorial Library	1951
226.00	Endowment Fund for the School of Nursing	1934
200.00	Luthard N. Bergh Memorial Fund, through the Greater University Fund	1948
200.00	Judd Lectureship in Medicine and Surgery	1933
150.00	Leo G. Rigler Lectureship in Radiology, from Dr. Hymer L. Friedell	1944
100.00	Harry Parks Ritchie Memorial Fund, from Horace D. Klein, through the Minnesota Medical Foundation	1948
78.96	John Miller Memorial Fund	1945
75.00	Hospital Budget, from The Foster Club	1950
48.00	William Harvey Emmons Fund, through the Greater University Fund	1944
32.53	President's Loyalty Fund, from the Student Activities Bureau, through the Greater University Fund	1950
21.00	University Theatre Building, through the Greater University Fund	1940
15.00	Psychopathic Hospital budget, from Eleanor Schultz	1950
10.00	Fred B. Snyder Fund, through the Greater University Fund	1947
4.50	Art Development Fund, through the Greater University Fund	1951

\$582,078.05

MISCELLANEOUS GIFTS, 1951-52

- Seven hog fountain heaters and an automatic tank heater from the Johnson Gas and Appliance Company, Cedar Rapids, Iowa, for use in research and experimental work with swine at the Rosemount Station
- Two recorded works—Symphony No. 2 by Walter Piston and Symphony No. 5 by Henry Cowell—from Vice President and Provost Grayson Kirk, Columbia University, New York, to the Department of Music Library
- Three-compartment kennel from Corn States Serum Company of Omaha, Nebraska, to the Clinic of the Division of Veterinary Medicine
- Ethnological specimens from the Peruvian upper Amazon area from Professor A. C. Krey to the Museum of Anthropology
- A technicolor motion picture concerning dairy cattle production in England from A. E. Robinson, c/o Lever Brothers and Unilever, Ltd., London, England, to the Division of Animal Husbandry
- Seven illustrative steel joints and a set of detailed drawings illustrating various methods of making steel joints from various Twin City structural steel fabricators to the Department of Civil Engineering
- An embryotome from Dr. Nils Lagerlof, Royal Veterinary College, Sweden, to the Veterinary Clinic
- An equine operating table from Dr. W. A. Elver, Long Prairie, Minnesota, to the Veterinary Clinic
- A resistohmometer from R. H. Anderson, engineering manager, Ideal Industries, Incorporated, Sycamore, Illinois, to the Department of Electrical Engineering
- A portable electronic pile simulator from Westinghouse Electric Corporation, through D. J. Sommers, application engineer, to the Department of Chemical Engineering
- A painting, *Mural Fragment* by Robert Motherwell, from Katherine Ordway, Westport, Connecticut, to the University Gallery
- An Allison Aircraft Engine from Northern Ordnance, Incorporated to the Department of Mechanical Engineering
- A United Nations Flag to the West Central School and Station, Morris, from veterans of World Wars I and II who are students at the School
- A Peruvian flag from the minister of education of Peru to the University as a token of good will and common purpose
- Fifty-two botanical specimens from F. W. Hunnewell, Wellesley, Massachusetts, to the Botany Herbarium
- Gift of Regent Fred B. Snyder's gown and hood from his son, John P. Snyder, Minneapolis
- Two Allison Aircraft Engines from the Northern Pump Company, Minneapolis to the Mechanical Engineering Department

THE PRESIDENT'S REPORT

Forty-three Kodachrome slides of geologic subject matter to the Department of Geology and Mineralogy for the Junior F. Hayden slide collection from Mr. and Mrs. Lawrence W. King, St. Paul

To the Duluth Branch:

Tax title costing \$233 covering land to be used for recreational purposes for the Duluth Branch campus from Regent R. L. Griggs

Land from the Dickerman Real Estate Company to be used for recreational purposes for the Duluth Branch campus

Warranty deed from Royal Delbert Alworth and Molly Y. Alworth, his wife, conveying real estate in Duluth to the Regents

Warranty deed from Royal D. Alworth conveying title to the Regents of real estate designated as the Marshall Alworth residential property

Property from the Mayo Association, any proceeds therefrom to be used for loan or scholarship purposes at the Duluth Branch

Wood block print by Seong Moy from Anna Sosenko and Hildegard to the Tweed Gallery, Duluth Branch

BOOK GIFTS, 1951-52

To the University Medical-Biological Library:

200 volumes on the history of ophthalmology from Dr. Edward P. Burch, through the Greater University Fund

To the University Library:

Additions to the Kerlan Collection, from Helene Carter, Lucille Ogle, Helen Dean Fish, Jeanette Eaton, and Leon Anderson

65 books, 136 issues of periodicals, and 131 pamphlets in the fields of sociology and psychology from Mrs. Mildred D. Mudgett, Minneapolis

343 assorted books of a general literary nature from P. D. McMillan

270 assorted books, mostly French and Spanish from Professor E. C. LeFort

57 books in the Arabic Language from Professor T. B. Irving and F. W. Farah

221 miscellaneous medical books and magazines from Mrs. Jennings Litzenberg

Collection of 621 assorted books from the library of John F. Sinclair, economics, political science, literature, etc., from Mrs. Wright Brooks

168 issues of *Fortune* magazine, 214 issues of architectural magazines from Herman Olson

Several cartons of children's books to be added to the Kerlan Collection from Dr. Irvin Kerlan

13 assorted books for the Ford Room Library from Dean T. C. Blegen

51 history books from Mrs. L. B. Shippee

69 books—history collection from Professor A. C. Krey

7 books and magazines from Dr. Guy Stanton Ford

50 history books from Professor L. D. Steffel

13 books of history from Harper and Brothers

1 history book from Professor Herbert Heaton

ASSIGNMENT OF PATENT APPLICATIONS, 1951-52

Original Patent No. 2,544,716, Application Serial No. 783,432, A. O. C. Nier, Filament-Plat Voltage System

Original Mexican Patent No. 49,757, Application Serial No. 27,262, July 18, 1951, Ole Gisvold, Improvements in or Relating to a Process of Making Extracts of Plants of the Species *Larrea Divaricata*

Original Patent No. 2,576,264, Application Serial No. 769,030, November 27, 1951, Professor Samuel T. Coulter, et al., Method and Apparatus for Spray Drying

Original of Patent No. 2,582,150, January 8, 1952, issued on Application Serial No. 218,712, Alfred O. C. Nier, Mass Spectrometer Apparatus

Original Patent Serial No. 2,584,450, February 5, 1952, George W. Holt and William G. Kubicek, Tracheotomy Inhaler Apparatus

Assignment of Application of Zbornik, Carpenter, and Lundberg for patent covering invention of Composition and Method for Treating Bloody Scours in Swine

PATENTS RECEIVED, 1951-52

No. 2,510,262, Application Serial No. 553,292, Karl Sollner, Charles W. Carr, and Harry P. Gregor, Processes of Making Ionic Membranes

No. 2,523,127, Application Serial No. 647,431, Walter O. Lundberg, Antioxidant

No. 2,520,384, Application Serial No. 750,137, E. W. Davis, Furnace

Netherlands Patent No. 63,004 (corresponding to U. S. Application No. SN 211,078), Lee I. Smith, Vitamin E

Great Britain Patent No. 529,081 (corresponding to U. S. Application No. SN 211,078), Lee I. Smith, Vitamin E

Great Britain No. 529,082 (corresponding to U. S. Patent No. 2,249,054), Lee I. Smith, Vitamin E

Canada Patent No. 420,438 (corresponding to U. S. Application No. 463,653), Smith and Ungnade, Vitamin E

Canada Patent No. 447,744 (corresponding to U. S. Application No. 463,280), Smith and Sprung, Vitamin E

Canada Patent No. 456,466 (corresponding to U. S. Application No. 505,299), Smith and Sprung, Vitamin E

Canada Patent No. 457,295 (corresponding to U. S. Application No. 505,298), Smith and Sprung, Vitamin E

Canada Patent No. 460,803 (corresponding to U. S. Application No. 494,905), Smith and Renfrow, Vitamin E
 Canada Patent No. 460,804 (corresponding to U. S. Application No. 497,844), Smith and Ungnade, Vitamin E
 Canada Patent No. 460,654 (corresponding to U. S. Application No. 463,653), Smith and Ungnade, Vitamin E
 No. 2,534,260, Application Serial No. 100,959, Ole Gisvold, Digitalis Extraction
 No. 2,533,288, Application Serial No. 685,354, Otto H. Schmitt, Temperature Stabilization
 No. 2,533,287, Application Serial No. 685,350, Otto H. Schmitt, Thermistor Systems
 No. 2,533,286, Application Serial No. 685,349, Otto H. Schmitt, Heat Sensitive Circuits
 No. 2,544,718, Application Serial No. 41,493, A. O. C. Nier, Ion Collector for Mass Spectrometers
 No. 2,544,717, Application Serial No. 783,434, A. O. C. Nier, Mass Spectrometer Apparatus

SUMMARY OF FINANCIAL OPERATIONS

The data which follow constitute a brief summary of the financial report for the year ended June 30, 1952. 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>	\$14,136,654.00
For the general support of instructional, research, and administrative departments, and maintenance of buildings and grounds, including the Department of Agriculture, the Agricultural Schools and Experiment Stations, and the Duluth Branch.	
<i>The 23/100 Mill Tax</i>	306,354.74
The standing direct property tax for the general support of the University.	
<i>The State's share of the cost of indigent patients at the University of Minnesota Hospitals</i>	979,186.93
<i>The Special Projects administered and carried on by the University for the general benefit of the people of the State</i>	1,348,456.00
These special projects include Agricultural Extension, County Agents, Beneficiation of Manganiferous Ores, Soils Survey, Dairy Manufacturing, Medical Research, Live Stock Sanitary Board, Crop Breeding and Testing, Child Welfare, Psychopathic Hospital Maintenance, Mastitis Control, Fruit and Vegetable Research, General Research, Minnesota Institute of Research, Home Demonstration and 4-H Club Work, Agricultural Research—Rosemount, Hybrid Corn Maturity Tests, Brucellosis Research and School of Agriculture Student Aid Fund.	
<i>The Physical Plant Extensions</i>	5,171,358.00
1947—Building Fund Receipts—Waseca Farm School, \$335,000; 1948—Building Fund Receipts—Veterinary Medicine Addition, \$400,000; Heating Plant—Minneapolis, \$335,000; College of Education Building, \$600,000; Physics Addition and Equipment, \$140,668; Physical Education Building—Duluth, \$500,000; Library—St. Paul Campus, \$420,000; Social Science Building, \$45,000; Animal and Poultry Husbandry Building, \$50,000; Waseca Farm School, \$338,000; Waseca Dormitory, \$162,000; Mayo Memorial Building, \$1,200,000; 1951—Building Fund Receipts—Heating Plant—Minneapolis, \$150,000; Library—St. Paul Campus, \$173,000; Hospital Plumbing Repairs, \$84,690; Morris—Dairy Barn Roof, \$20,000; Morris—Repairs to Damaged Buildings, \$50,000; Agricultural Greenhouse, \$90,000; Farm Buildings—Rosemount, \$28,000; Alterations—Home Economics and Administration Buildings—St. Paul Campus, \$50,000.	
From the Federal Government	
<i>Instruction, Research, Extension, and Plant Extensions</i>	1,444,980.13
This income is divided: for instruction, \$149,732.69; for agricultural research, \$284,955.37; for agricultural extension, \$845,220.07; for physical plant extensions, \$165,072.00.	
From the Permanent University Fund	703,482.26
The principal of the fund, amounting to \$30,800,469.50 on June 30, 1952 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.	
From the Swamp Land Fund	94,880.00
The principal of the fund was derived from land set aside by the State of Minnesota. The University participates in the income.	
From Fees and Receipts	9,091,583.37
This income is divided: student tuition fees, \$3,584,901.95; counties' share of indigent hospital patients, \$969,417.25; other hospital receipts, \$1,557,805.14; dental infirmary receipts, \$139,424.58; other department receipts such as laboratory fees, sale of livestock and agricultural products, \$2,807,674.76; miscellaneous, \$32,359.69.	

From Service Enterprises and Revolving Funds	8,317,014.19
This includes income from such service enterprises 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 \$65,486.04 was used for plant expansion.)	
From Trust Funds	6,348,230.86
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 \$42,324.09 was used for plant extensions.	
From Intercollegiate Athletics	771,721.43
Total Receipts	\$48,713,901.91
<i>Free Unencumbered Balance, July 1, 1951</i>	3,878.37
Grand Total	\$48,717,780.28

Expenditures for University Operation

For Administration of the University	\$ 1,324,237.22
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.	
For the General University	1,969,245.86
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.	
For Instruction and Research	19,983,458.33
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, \$14,129,516.67, Federal Funds, \$1,297,802.63, Special State Appropriations and Income, \$4,556,139.03.)	
For Physical Plant Operations	3,040,527.27
The expenses of maintaining and operating the buildings and other improvements on the land of the Minneapolis Campus and the St. Paul Campus.	
For Physical Plant Extension	6,453,228.79
Classroom Building, \$229,315.08; Heating Plant Boiler, \$459,490.76; Dormitory for Men, \$45,446.52; Social Science Building, \$37,085.31; Home Economics Addition, \$138,934.59; Duluth Science Building, \$48,507.47; Waseca Farm School, \$711,339.34; College of Education Building, \$716,046.83; Physics Addition, \$204,444.60; Veterinary Medicine Addition, \$416,643.64; Hospital Plumbing Repairs, \$51,953.95; Heating Plant—St. Paul, \$34,064.65; Library—St. Paul, \$511,036.10; Physical Education Building—Duluth, \$519,234.86; Agricultural Greenhouse, \$87,320.50; Dental Building Remodeling, \$43,677.16; Remodeling Hospital Facilities, \$31,579.02; Auxiliary Poultry Buildings, \$91,374.75; Physics Laboratory Building, \$77,903.35; Mayo Memorial Building, \$1,599,425.41; Variety Club Heart Hospital, \$102,428.50; Purchase of Real Estate, \$49,330.05; Miscellaneous, \$247,446.35.	
For Service Enterprises and Revolving Funds	7,496,409.27
This includes expenditures for such service enterprises 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.	
For Trust Fund Purposes	6,163,763.35
This includes expenditures for prizes, scholarships, fellowships, care of the sick, and expenditures from endowment and research contract funds for instruction and research.	
For Intercollegiate Athletics	629,985.24
The operating expenses of intercollegiate athletics and that part of the physical education expense paid from receipts of intercollegiate athletics.	
Transfers and Adjustments	1,653,166.88
Miscellaneous transfers between Endowment, Current, Loan and Plant Funds, \$29,849.23; outstanding obligations and allotment increase, \$1,768,685.66 (current funds, \$1,874,010.89; plant funds, \$105,325.23); decreases in current reserve funds, \$85,669.55.	
Total Expenditures, Transfers, and Adjustments	\$48,714,022.21
<i>Free Unencumbered Balance, June 30, 1952</i>	3,758.07
Grand Total	\$48,717,780.28

A Few Interesting Facts about the University

Student Enrollment	1948-49	1949-50	1950-51	1951-52
Collegiate	35,935	35,174	30,848	26,085
Fall Quarter—2nd week	(27,243)*	(25,084)	(22,080)	(18,682)
Noncollegiate	18,606	23,575	23,637	23,871
Extension	18,525	18,640	16,868	17,603
Staff—All Funds				
Academic†	2,977	3,128	3,057	2,865
Civil Service†	3,530	3,738	3,706	4,026
Colleges	Departments			Departments
Science, Literature, and the Arts	30			Schools of Dentistry, Law, Pharmacy, Business Administration, and Library Instruction, University and General Colleges—each
Institute of Technology	14			
Department of Agriculture	34			
Medical Sciences	19			
College of Education	13			Duluth Branch
Graduate School	15			
Land—June 30, 1952		Acres		Value
Minneapolis Campus		193.92		\$4,906,267.09
St. Paul Campus—Agriculture		703.27		694,378.75
University of Minnesota—Duluth Branch		174.56		48,519.04
Branch Stations				
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		597.30		70,752.50
Cloquet		3,702.09		66,446.39
Excelsior		223.06		38,233.72
Rosemount Research Center		7,973.30		1,617.04
Total		16,044.55		\$6,105,499.03
Buildings—June 30, 1952		Major		Minor‡
		Number	Value	Number
Minneapolis Campus	72	\$38,953,812.32	48	\$ 464,494.49
St. Paul Campus—Agriculture	39	6,515,646.35	52	327,840.73
Off-Campus Buildings			434	542,692.60
U. of M.—Duluth Branch	7	2,071,874.09	6	42,312.46
Rosemount Research Center	4	108,441.26	125	126,033.83
Branch Stations				
Crookston	11	1,010,356.39	43	186,651.83
Morris	12	1,007,989.06	21	126,633.38
Duluth	2	70,826.06	22	82,588.14
Grand Rapids	4	311,134.40	23	105,982.22
Itasca			43	73,610.70
Waseca	2	976,181.07	33	80,377.09
Excelsior			26	75,080.96
Cloquet			33	56,846.59
Rosemount			41	164,558.17
Total	153	\$51,026,261.00	950	\$2,455,703.19
Equipment—June 30, 1952	Total	Livestock	Books and Museum Collections	Other
Minneapolis Campus	\$14,247,983.98		\$6,973,633.54	\$ 7,274,350.44
Department of Agriculture	2,802,296.40	\$249,406.42	451,598.59	2,101,291.39
Duluth Branch	569,169.68		156,032.33	413,137.35
Service Enterprises	2,744,464.13			2,744,464.13
Trust Funds	1,757,852.31		19,559.29	1,738,293.02
Total	\$22,121,766.50	\$249,406.42	\$7,600,823.75	\$14,271,536.33
Endowment—June 30, 1952				Value
For General Purposes				\$30,800,469.50
Unassigned Funds Operating Temporarily as an Endowment				1,121,092.57
For Student Aid—Scholarships, Prizes, and Loans				1,541,257.86
For Educational Purposes				6,965,552.83
For Other Purposes				2,188,180.79
Endowment—Subject to Annuity				80,535.06
Total				\$42,697,088.61
Loan Funds—June 30, 1952				\$ 534,897.54

* Includes Duluth Branch.
 † Reduced to a full-time basis.
 ‡ 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 1950-51 is published as Volume LIV, No. 58, and for 1951-52 as Volume LV, No. 54, of the University of Minnesota Bulletin Series.

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