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UNIVERSITY of MINNESOTA

The Biennial Report of the President
of the University of Minnesota
to the Board of Regents
1938-1940



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WHAT THIS REPORT CONTAINS

Every two years the president of the University prepares a comprehensive report to the Board of Regents and for distribution among the citizens of the state. It constitutes the historical record of university activity and progress, biennium by biennium.

This present report for 1938-40 falls into three general divisions.

In the first section, President Ford, focusing his materials upon the general topic "The Making of the University," traces, through the personalities and influences of the five preceding presidents of the institution, the forces that have shaped the history of the University from the beginning days of President Folwell. These remembrances of President Ford, who knew intimately all of his predecessors, are drawn together in a way that reveals, as no academically formal document possibly could, how the making of a great educational institution is the outgrowth of three significant factors: first, environmental circumstances and conditions; second, outstanding educational leaders whose minds can cope with these existing local circumstances and develop educational programs that are adapted to them; and third, the faith of the body of citizens who, recognizing the importance to a state of a public university, support it through legislative appropriations and effective good will. President Ford's somewhat unorthodox report gives a new perspective to the history of the University of Minnesota and is particularly appropriate, coming as it does at the end of his twenty-eight years of service to the state of Minnesota and the University.

The second part of the report includes brief accounts of events and activities of particular significance. Here, too, are the tabulations that carry forward statistical series that have been presented for many years. These bring the record to date. The third section contains the reports from the deans of the colleges and the heads of the various administrative units.

The University of Minnesota is a complex institution and its activities ramify in surprisingly many directions; it touches in some manner every section of the state and most of the citizens. No one person can possibly know all the details relating to university life, but a careful reading of this report will provide a background sufficiently inclusive to enable the reader to understand more precisely what the University is doing in teaching, in research, and in service to the state, and to judge the effectiveness with which these responsibilities are being met.

MALCOLM M. WILLEY,
University Dean and
Assistant to the President

THE PRESIDENT'S REPORT

*To the Honorable Board of Regents
University of Minnesota*

GENTLEMEN: The report of the president of the University of Minnesota is essentially the report of the director of a great co-operative enterprise, the greatest in the state except the government of the commonwealth itself. Whether this report reaches all the citizens or not, it certainly concerns all of them.

THE SERVICE OF THE UNIVERSITY

No one within the boundaries of the state is untouched by the activities of this common enterprise. The service the University renders is rendered not only in the education of nearly forty thousand persons, over half of whom are collegiate students; it is rendered in the continuing education of teachers, doctors, dentists, pharmacists, business men, engineers, lawyers, journalists, nurses, county agents, foresters, and horticulturists. This service brings the University directly or indirectly into every home. Beyond that, through institutes, home weeks, farm bulletins, the radio, forums, club work for all ages and interests, expert and special services from seeds to surgery, it touches millions of people in scores of ways. The citizen of Minnesota who would escape contact with the state's great University would have as difficult a time as did the little boy in the old fourth reader that I thumbed over and over in a country school. The lad sought to run away from a teacher named Hugh Toil. But when he loitered by the way to see mowers in the field, he saw Hugh Toil swinging a sickle at the head of this group. He fled again, but when he listened to the musicians at a festival, the chief fiddler was Hugh Toil. So it went until, convinced there was no escape, he turned back to the Hugh Toil behind the schoolmaster's desk.

But I have yet to find the citizen who would wall the University and its services out of his home and life. Quite the contrary. The people in their homes and businesses are steadily turning with their problems to the University for guidance and help, and through the educational needs of their sons and daughters they are making upon it increased demands for more types of training and for more training in fields that we formerly thought were fairly well stabilized. When the operating officers of this great co-operative enterprise are faced with these demands of their constituency, demands that are not only expressions of individual groups, of local and state needs, but of confidence and state pride, they are spiritually uplifted and encouraged by them; but often—too often in recent years—they have been physically and economically unable to respond.

When I came to Minnesota in 1913, President Vincent was gleeful at having received that year all that had been asked of the Legislature. We all felt as adequate then as the man who began by carrying a calf. As I close my service twenty-eight years later and pass to my successor

a university with twenty-two thousand students, the second largest in the United States and the largest on any one campus, I shall have at least the comfort that I have told him and as many of the stockholders as my pen or voice will reach, the weight of what they must now help him carry.

The story of the rise of this University to its present high rank, and the addition year by year to its program of new services to the student body and to the state, is a fascinating one that will be told some day as a significant chapter in the history of higher education in the United States. It will be more than that. It will be a contribution to a field in which American democracy has achieved one of its greatest successes and justified the hopes of those who founded the state and the nation. When it is written, the people of Minnesota will have additional reason for their pride in their University and a new reason to be proud of themselves and the generations that preceded them.

FROM WHAT SMALL BEGINNINGS

From what small beginnings the University started was borne in upon me a few years ago when I wrote an historical sketch for the eightieth anniversary of the First Congregational Church of Minneapolis. The first entry in the records of the church was a brief statement that they held their first meeting December 7, 1851, "in the school-room of the University." And a later entry told of meeting for services by candlelight in this room, as yet unoccupied by the University it was to house. The building had four rooms, only two of which were finished. It stood where the old Exposition Building stands or stood (for that, too, is disappearing) on land given, but never formally conveyed, to the Regents. It was of stone, and paid for by public subscription. A little preparatory school, run by a principal who was to pay his salary and costs from tuition, was all there ever was, and that for only four or five years. The years that followed included the financial crash of 1857 that hit Minnesota's frontier boom harder than the depression of 1929, and covered the Civil War. War and panic seemed to snuff out the Regents' ambitious plans for the University on a new site, the nucleus of the present campus. All that was left in the sixties was a half-finished, abandoned, and decaying Main Building on the new campus around the present knoll. What a story those old oaks could tell!

But the knoll and the stones and the shell of a building were not all that was left. The building was abandoned, but not the idea it symbolized in the minds of the people. There were men, chief of whom was John S. Pillsbury, who would not let the institution sink under debts and unpaid mortgages. And there was the corporate charter of territorial days, now imbedded in permanency in the constitution of the state. That alone was a great heritage from territorial days and a shield and buckler for those who took up the fight for a unified institution of higher learning in the state and at the Falls of St. Anthony.

THE COMING OF PRESIDENT FOLWELL

Somewhere in the mire in which the idea of a state university seemed to be sinking, the Regents, under Mr. Pillsbury's shrewd and devoted leadership, found a rock bottom on which they could rest the foundation

of a state institution. It was a second founding, and so futile and forgotten were the efforts of the 1850's that their work and the calling of William Watts Folwell to the presidency has been counted the real founding. It was indeed that, though the University, like Harvard and many other institutions, dates its beginning very properly from the year it was given a corporate existence under a territorial charter that has been the framework of its government ever since. That year was 1851.

With the coming of Dr. Folwell in the fall of 1869, the historical rivulet of the University's history became a navigable stream. One might think the guns of Chancellorsville and Appomattox and the thundering hoofs of Sheridan's cavalry would have driven all memories of Greek and Latin and philosophy from the mind of the brevet colonel of engineers and bridge builder of the Army of the Potomac. Not so. Turning his back upon war and business he returned to his first choice, a college professorship. So versatile was he that he pondered whether it should be Greek in one institution or civil engineering in another or comparative philology in a third. He turned his back on all three to come to a frontier country that believed in free education. He did it because he had ideas about this type of education and its organization that might be worked out with greater freedom in a young state imbued with the pioneer spirit.

BUILDER OF BRIDGES

He was still the bridge builder, but now his pontoons on which marching generations were to reach the shores of a richer life were to be free public high schools, junior colleges, great museums and libraries, and a state university. His spirit was possessed with the future, not as a dream or a mirage, but as a realizable reality. His inaugural address and early writings are a heritage we have not yet fully made our own. He was always thus. At a town-and-gown dinner for him on his ninetyeth birthday, he rose and, brushing aside the praise bestowed upon him and putting the past behind, he was off into the future with a program in which he told us what he wanted to see the nation do, what the state should do, what the city should do, and what the University should do. *Mirabile dictu*, in the seven years he had yet to live, he saw his first plan realized when the federal government provided for the great National Archives Building in Washington.

How far he was ahead of his time he came to realize in the years from 1869 to 1884. Great plans cannot always be given hands and feet by the man who conceives them. Bold ideas may lose their cutting edge under the direction of others more sensitive to their times and to the pressures of varied interests, yet make a trail by less direct routes toward the distant goal.

The University, if it was to approach the stature Dr. Folwell foresaw, needed roots. In his own way the first president sought to provide these by sponsoring a state-wide system of high schools whose graduates would be prepared for college work. Few things gave President Folwell greater satisfaction than the part he played in founding this first state-wide system of high schools whose ultimate level would be what we call junior colleges. If his modesty permitted him to speak of anything more,

it was that he stayed on as a professor and librarian twenty-three years. A loyal supporter of his successor, he was again the great teacher preparing his pupils for citizenship and public service. To the end of his exceptionally long life he was what his biographers have called him, a true pioneer of culture. He left the chartroom filled with possible courses marked out for his successor at the helm.

"NORTHROP OF MINNESOTA"

No happier choice could have been made in 1884 than that successor, Cyrus Northrop. No more favorable environment could have been found for Dr. Northrop's personality and possibilities than the state and the University to which he came. Here he had the rare opportunity to be what he was, a great personality who craved and made human contacts with students, faculty, and the people of the state. His genius for friendship and his shrewd appraisal of men as men, and his direct way to their hearts and to their respect, were the indispensable assets needed by the struggling, gangling young University. He put flesh upon its bones, assurance in its bearing, and light in its eye. He gave the University roots like the oaks on the knoll and they went deep into the pride and affection of the whole state. Most of the larger state universities of the Middle West have had some comparable personality to do a comparable task. One thinks of Angell at Michigan, Bascom at Wisconsin, and at a later date, Thompson at Ohio, and Bryan at Indiana. But Northrop of Minnesota remains first among those whose personalities made the universities of their day their own lengthened and humanized shadows. Students of his day talk less to me of the University and more of Cyrus Northrop. How did he do it? That was the secret of his personality and, like his marvelous voice, it is gone. He wrote no books, he left no far reaching plans for the future, no letter or address that is akin to the products of his predecessor's bold thinking. The stories told of him are the best clues. I am not turning from my theme of the making of a great university when I tell two from my own memory.

After their retirement the two ex-presidents had a joint office in the old library, now Burton Hall. Dr. Northrop seldom used it, but Dr. Folwell was usually there working steadily on his history of the state. A few days after Dr. Northrop's death I stepped in from my office across the hall to talk with Dr. Folwell. He spoke in brief appreciation of his successor, "Prexy, as we called him, was a rare man, and I have always been glad I stayed to serve under him. Someone would come into his office with a fantastic idea and President Northrop would wave him out saying he had no time for such wild schemes. The man would go out and say, 'There is a great man in there.' If I had said it, we would have had a fight." Could any characterization of one aspect of the two men be more complete!

The other story is to me equally revealing. A student religious organization planned a series of talks for Easter week, 1922. President Northrop was to give the first, and I the second. On the Sunday preceding, I missed him from his usual place in church and dropped in to see him at his home. After a greeting that was characteristic and revealing in itself, I reminded him of our joint obligation and told him I could

shape my talk better if I knew his theme. He reflected a moment and answered, "I think I shall talk about 'Love, the greatest thing in the world'." The next day he fell asleep forever in the chair by the window from which he had watched the university life surge by him. But its tide still carries something from the personality of the watcher at the window.

EARLY CIRCUMSTANCES FAVOR GROWTH

If in the history of the University during President Northrop's term from 1884 to 1911 the man counted for much in the making of the University, the contributions of favoring circumstances must not be forgotten. Of these circumstances two have already been mentioned: the successes and even the unrealized plans of President Folwell, and the unitary concept of a state institution of higher education handed down by the founding fathers. That idea did not go unchallenged during President Northrop's regime but his pleadings, supported by the generosity of Governor Pillsbury, were heard and the Legislature in 1889 by special resolution gave "solemn assurance that the unity of the several departments of the University shall always be preserved and that the Agricultural College shall be maintained as an important department." That pledge has been kept inviolate by the people's representatives. Many reasons justify this accepted policy. One reason all can understand, when they see that, in a neighboring state, to support the divisions of the work concentrated in the one University of Minnesota, costs a million dollars more per year for three thousand five hundred fewer students.

One other state condition I have never seen mentioned or explained. The historian of higher education in the Middle West cannot miss the fact that from the standpoint of collegiate institutions there are two regional belts. The northern one is composed of Michigan, Wisconsin, and Minnesota; the southern one of Ohio, Indiana, Illinois, and Iowa. In the southern belt there sprang up literally scores of small independent colleges, weak in resources but strong enough, taken together, to delay in various ways the development of the state university. No such educational error occurred in the northern tier. The number of denominationally and regionally supported, independent colleges in Michigan, Wisconsin, and Minnesota is scarcely a dozen in each state and in their standards they have sought to keep pace with the university, and their graduates have turned to it for advanced and professional training. With such a group it has been easy to maintain co-operation, especially in Minnesota. These colleges have, under wise and intelligent presidents, recognized the leadership that came to the state university as it grew and justified their own place by efforts to strengthen themselves. The congenial relations and understanding of President Northrop, Archbishop Ireland, President Bridgman, President Wallace, and others, have continued under their successors. I venture to suggest that this mutually supplementary and happy relationship, especially in Minnesota, helps explain why among state universities in the Middle West the state universities of Michigan, Wisconsin, and Minnesota each in turn have risen to state and national leadership earlier than those in other states.

NEW NEEDS BEGET NEW SERVICES

Other factors in the Northrop period made growth and expansion possible and inevitable. The increase in population—and that a population distinctly interested in better opportunities for their children—the development of the state's resources, by the diversification of its sources of wealth-production in fields, mines, and factories, made greater things possible after the recovery by the early eighties from the depression following 1873. New careers opened up, new services were demanded of the University, and new appreciation and support came to it. Unsolved problems could now be met, especially that of agricultural education, in which Minnesota took an early lead, and utilized wisely both state and federal support. I should like to acknowledge here that when I came to Minnesota after a connection as student and teacher with two other state universities, agricultural education was and has remained to me one of the outstanding features of this University, from the work of the world-known scientists in the college and experiment station to the grass roots education which translates the scientists' results through the schools of agriculture, the institutes and farm home weeks, discussion clubs, and county agents.

Almost coincident with the recognition, by the state and the University, of agriculture as a major industry dependent for progress on science and education, came the recognition in the late eighties and early nineties of the necessity for better and more available training in law, medicine, dentistry, engineering, and mining. Separate colleges for these were followed later (before President Northrop's retirement) by a College of Education and then, crowning this grouping of colleges, Minnesota staked out her claim to being a university in a true sense when the Graduate School was established in 1905.

Some of these beginnings seem to us slight and far away, like the beginnings of the University itself in a four-room building, ideals of a growing staff and student body rather than the widely ramifying realities they are today. They were the beginnings of services that responded to state needs and were evidences that in higher education in all fields the state and the Middle West were no longer dependent on the Atlantic seaboard. The alumni had gone forth a living testimony to let the University be known by its works. Private gifts, not large but needed and wisely given, indicated the day, not yet with us, when private wealth accumulated in the state would recognize its opportunity and obligations. Last of all, President Folwell had lived to see the state, under his successor and in better days, do what he advised in his inaugural of 1869—think in terms of millions when it thought of higher education.

THE OLD MERGES INTO THE NEW

Thus far in my report, for it is not a history, I have told the story of the making of your University, of your accumulating investments in it in support and in youth on its campuses, and the returns rendered you in terms of the administration of two men I knew after they had retired. They, too, could say that they had lived to know all their successors as I, the sixth in the succession, have known all my predecessors.

Perhaps this is one reason why the University of Minnesota has sturdily kept the best of the old while responsive to, and in the vanguard with, its vigorous initiation of the best of the new.

If the report continues in the terms in which it was almost unconsciously begun, I must speak of the University under three men, one now living and two who "have passed out of sight of men by the path of duty and self-sacrifice," with all three of whom I have labored in the heavy task they assumed: Vincent, Burton, Coffman. If my report deals more briefly with the period of these three presidents, it is paradoxically because they are the important years in which a dozen disparate colleges with great potentialities were knit into a great, self-conscious university. They are the significant years in the making of the University as you know it today. As an observer and participant in this founding or re-founding, this renaissance, I may think I know the period better than the preceding one, but I know it less objectively and the processes and various steps are so multifarious that I must guard against the confusion that comes with too much detail.

UNIFICATION UNDER VINCENT

Nowhere that I know, did President Vincent summarize in his own words the changes he fashioned in six brief years. The vitality and dynamic personality with which he wrought, like those of his predecessors, will long be remembered, but in a different way. He came from a great university in whose making he had shared and whose standards of scholarship had given it national prominence from the moment it opened. He proclaimed no program beyond possibility in the day that was dawning at Minnesota, as did President Folwell. He was content, when he went on to larger tasks, to have so wrought that the state and the nation recognized that he had limned and unveiled the features of a university set upon a state-wide campus and lit by the glow of a new appreciation among the people of the value to the commonwealth of science and learning.

Much of what President Vincent did in achieving this great and difficult task was done upon the campus and through measures of internal reorganization. They were fundamental and without them the University could not have met its tasks. No backward step in this unification has ever been consciously made in the succeeding years. The details are matters of record in the minutes of faculties and the Board of Regents, to which the word *all-university* is the key, whether it is creating a University Senate, a weekly meeting of the deans, a student union building, an intercampus car line saving millions through the years, or a budgetary system that helps explain why a nationally known writer in a recent article said that the University of Minnesota gets more for its dollar than any comparable institution.¹

Again, and here we get nearer the heart of the problem of making a university, President Vincent set up high and discriminating standards for the recruiting of a faculty. One cannot look at the list of younger men who were added in his day and in the years immediately following,

¹ John R. Tunis, "What College? And Why?" *Redbook*, p. 92. March, 1940.

without being struck with the fact that they constituted the main body of the teachers and scientists who, in the next quarter of a century, were to establish the name of Minnesota as a center of learning. Some of them went on to achieve high distinction elsewhere. Most of them found in the stirring environment of the Minnesota campus a congenial place to work. These are the men who are now reaching the retiring age. The recruitment of their successors under present competition and with our present salary scales for younger men, is a difficult task unless the citizens of the state, who are all shareholders in our common enterprise, help as they did when these men began their careers. Today every worthwhile institution is searching and bidding for competent instructors. The faculty replacements we all seek are men who have spent as many years in preparation as any other professional man. They are young men who hope to marry and start a family, young men whom we expect to keep themselves professionally competent by investment in the tools of their profession and by travel. It is such possible appointees that our present support forces us to approach with salaries less than the earnings of skilled artisans or of high school teachers in good city systems. Like the children of Israel, the citizens of a proud commonwealth that believes the best teaching is none too good for its sons and daughters "can neither slumber nor sleep."

THE STATE-WIDE CAMPUS

Let me return from the now to the then. If the power of the central plant was stepped up, there was an equal obligation on the part of the University to distribute this power more widely to all classes in the state. Such was President Vincent's view when he moved to extend the boundaries of the campus to the boundaries of the state. If through the Graduate School and the scholars selected for its staff, the University was becoming and to become a national and international center of learning, there remained the obligation to offer the fruits of learning to those who could not come to the campus. For this purpose the General Extension Division, parallel to the existing Agricultural Extension Division, reached out into the state with course work and correspondence courses and began a new university service which reaches thousands. It is but a phase of what, under the modern name of adult education, now engages the attention of educators. Its full possibilities are yet to be realized here and in other areas.

This is not a place to digress into the future obligations of state-supported institutions in the field of adult education. The simplest census figures raise the problem—another. In 1870 half our population was under twenty years of age. By 1950, only ten years hence, only 30 per cent will be children or young people. In 1870 only 5 per cent of our population was over sixty years of age. Today twice that proportion is over sixty, and the number is rising both actually and relatively. What continuing education will fit a predominantly mature population to a changing world? What is to be the place of youth in a new world where the outlook and interests of age make way for them reluctantly?

LEADERSHIP IN MEDICAL EDUCATION

One other signal achievement of President Vincent lifted the University of Minnesota into unique leadership in the field of medical education and research. This was the acceptance by the Regents of the generous gift by the Drs. Mayo of funds for the endowment of the Mayo Foundation for Medical Education and Research. All that this foundation meant and will mean for generations to come in the battle against disease was more quickly realized outside the state than within it. Happily the persistence and foresight of President Vincent supported by the Regents of that day, to whom recognition is overdue, and the growing understanding through discussion by alumni and the medical profession, removed all reasonable objections. The whole story of the Foundation and its achievements will be part of the biography of the Drs. Mayo now being prepared and to be published this coming year. It will be another heartening chapter in the making of this many-sided University and an explanation of why the name of the University of Minnesota is known wherever in the world men name the centers of medical research and education.

STORY OF A LOST ORATION

It is not beside the point to recall one incident. The principals in it and the controversy are dead and gone, yet the memory remains vivid. It might be told as a warning against the kind of misunderstandings and vague rumors that can wound an institution just as deeply as they can wound an individual. Their vagueness and falsity may even be a factor in their spread and lethal effect upon the good name of man or institution. As such a warning it has come often to my mind in the intervening years and as such is not absent in this year of grace when loose and undefined words tipped with the venom from unthinking minds are being hurled at the head of anyone with whom we do not see eye to eye. The incident could be told as an illustration of how any lack of courage and unselfishness in leaders or any want of loyalty and understanding among a people may lead to grave errors of public policy. I tell it only as the story of a lost oration and as a tribute to men who served the University and are now beyond overtaking by the lagging steps of our heavy-footed praise.

The intensity of the controversy over the Mayo Foundation carried it into the Legislature where a bill was proposed to forbid the Regents to accept a gift of over one million six hundred thousand dollars, a gift that the Drs. Mayo increased before their death by another half million. There was to be a public hearing one evening in the House chamber. The situation seemed serious enough so that it was proposed to Dr. Will Mayo by some of his fellow regents and some of the staff that he take the floor at that meeting. It was an extraordinary request to make. Dr. Will thought a moment and then with the promptness of decision characteristic of him as a man and a great surgeon, he said, "I am a good soldier. If you gentlemen think it is necessary, I will do it."

The next evening in St. Paul a confused discussion was hushed as Dr. Mayo took the floor. He had no manuscript, not a line of notes. In simple language, chastened and elevated by the selfless thinking behind

the words, he told the story of the rise of the Mayo Clinic, how his father had started, how he and Dr. Charlie, "my brother and I," had carried on the tradition that relief from suffering by their skill was not alone the privilege of those who had wealth but must go to anyone, poor or rich, who came in and hung up his hat and asked for help. With his unfaltering charity and consideration for others less well trained he did not dwell upon what he and his brother had learned by observation of the need for better medical education of those who set up to be specialists. He told how the common, undivided purse, from which he and his brother drew, grew far beyond their simple needs; how with its increase there also grew in the minds of his brother and himself a sense of trusteeship for a fund that came from all the people and that somehow ought to go back to them. Thus he closed with a moving paraphrase of Lincoln's words at Gettysburg, that he and his brother had highly resolved that these dead should not have died in vain. No pen recorded his words and there is no recapture possible. It is a lost oration. I do not need to add that the bill died in the committee and the University went on to its new public service of training and certifying to the public by its degrees those who were already doctors of medicine and who were to teach and practice the specialties in medicine and surgery.

SUPPORT OF MEDICAL RESEARCH

From that day on research into the cause and cure of disease became a more definite obligation of the campus in Minneapolis and the one in Rochester. With the mounting realization of the importance of public health and of the suffering and economic loss from disease, the support of such research is more than an investment, it is an unescapable obligation. If the public could find its voice it would demand that we do more and would not stint its support, public and private, in a war whose casualties may be in any and every home. With all appreciation of the friendly understanding of the last Legislature, I have never been able to understand why the already inadequate sum granted for research in our Medical School was reduced. The five thousand dollars thus saved, if "saved" is the word to use, would have enabled a specially competent group to make a beginning on a perhaps long-time campaign against such a heart-rending disease as epilepsy, or on other diseases from which we now only pray that chance will deliver us and our children. When similar diseases invade our fields or our herds, we bestir ourselves mightily.

THE STATE INVESTS IN RESEARCH

If in form and sequence this report seems unorthodox, let me increase the sins upon my head by taking the opening that medical research makes to illustrate further the value to the state of any investments in its support. It is an investment and is so regarded by American industry today. Why otherwise would they put \$300,000,000 annually into it? The greatest industries and the ones most successful in weathering the depression were those which maintained or increased their budget allotments to research. Some invested as high as 16 or 17 per cent and some up to 20 per cent of their expenditures in research and found that it pays.

If we in this state are stockholders who hope to profit from its well-being, we ought to be just as farsighted in our support of research in the University. Out of one discovery the University of Wisconsin receives a large sum annually in addition to the creation of an endowment that runs into millions.

I cannot outline in detail all of the valuable research that the University of Minnesota and other universities have contributed to the economic well-being of the state and nation. But I should like to mention a few as examples of the hundreds available. Just think for a moment what a calamity it would have been for the owners of livestock had there been no research on Bang's disease. Not only have the results of that research saved Minnesota agriculturalists thousands of dollars but the methods used in its control have meant much to human life and health because of the direct relation between Bang's disease and undulant fever.

The research which has been carried on in recent years here at the University in the development of rust-resistant strains of grain has drawn the attention of agriculturalists from all over the world and has brought us students from such distant places as Australia. One of the results of that research, which has been carried on through the co-operation of our own agronomists and plant pathologists and those of the United States Department of Agriculture, has been the development of Thatcher wheat, a variety which is highly resistant to black stem rust and at the same time meets the exacting standards established by the milling industry. Although Thatcher wheat is a relatively recent development, fourteen and one half million acres of it were planted in the spring wheat growing sections of the United States and Canada in 1940. The average annual saving to Minnesota farmers alone through the use of this new wheat is conservatively estimated at two million dollars. But more important than its effect on the state's economy is its value to the individual farmer in helping to assure him of a crop and saving him from the calamity to his personal finances which the loss of his wheat from rust might have entailed.

A diversification of our demand for dairy products has been a crying need for a long time. During the past five or six years the University has been carrying on research in the development of various types of cheese, formerly produced only in certain foreign countries, as an additional use for Minnesota milk. Through the use of sand caves on the banks of the Mississippi River a "Roquefort type" cheese named "Minnesota Blue" has been developed. The use of these caves makes possible a considerable reduction in cost because of the ease with which constant temperature and humidity so necessary at one stage of ripening can be maintained. This new variety of cheese has been pronounced by epicurians to be equal, if not superior, to imported Roquefort. Research now is going forward on Edam cheese and the preliminary results look quite promising. These researches in the manufacture of cheese are particularly pertinent now that the European War has largely cut off our foreign cheese supplies. Already large cheese processors and companies which use substantial quantities of cheese are turning to "Minnesota Blue" as a source of supply.

FURTHER SCIENTIFIC CONTRIBUTIONS

The research on Vitamin E is another example of specific contributions made by Minnesota scientists. It is a good example of the fact, too, that what is considered pure research, when first undertaken, more frequently than not proves to be of tremendous practical value a few years later. About twenty years ago, when research on Vitamin E first began at Minnesota, no one would have dreamed of the importance which would attach to it now. A few years ago it was discovered that Vitamin E was the antisterility vitamin and at once there was a demand for a method to be used in its commercial preparation. Our work attracted the attention of one of the large chemical companies and a co-operative research project was set up here to develop commercially practicable production methods. This research project now is in its third and last year. Already the company is using commercially the methods developed here by our own scientists. As the research continues the aim is to produce a more uniform and purer product, in larger quantities and at a lower cost. Studies of its therapeutic values are still going on. We now know that it is useful in the treatment of muscular dystrophy, the disease which removed Lou Gehrig from baseball. We know also that its value as an antisterility vitamin is important not only to the human race but also in veterinary medicine. Thus the results of this research carried on in our Division of Organic Chemistry may affect not only the health of our citizens but will prove of great value to the livestock interests of this and other states.

For a final example I should like to call attention to research we have been carrying on in producing alpha cellulose from aspen ("popple"). Alpha cellulose, you may know, is a substance used in the manufacture of rayon, cellophane, nitrocellulose (guncotton), and other similar products. As a result of the research which began here in 1933, one patent has been applied for, and it is planned to apply for others. The process has now reached the stage in development when the next step will be the construction of a pilot plant capable of producing sufficient quantities to be tried out by the industry. It is estimated that such a pilot plant, producing 500 pounds a day during a trial period of three or four months, would demonstrate the practicality of the process. The construction of commercial plants, each with a capacity of 100 tons a day, would follow immediately. Right now the federal government is taking a marked interest in our research in this field because of its close relation to the present defense program. Here again we see how a project in pure research develops quickly into one of highly practical value. In the beginning our chemists were trying to find an affirmative answer to the question: Can we make a cellulose suitable for the chemical pulp industry? From the results of their research we have a means of adding several millions of dollars annually to the state's economy and contributing to national defense at the same time, through the use of a substance—aspens—of which the state has a practically inexhaustible supply and for which in the past no use had been discovered.

MARION LEROY BURTON AND THE WAR YEARS

The short and invigorating six years of President Vincent were followed by the still shorter term of Marion LeRoy Burton, 1917-20, the first native of Minnesota to be president of the University and the only one who had a theological training. President Burton had been pastor of a large church, a student and a teacher at Yale, which was the alma mater of both President Northrop and President Vincent. As a son of the state and a graduate of Carleton College, he came from the presidency of Smith College not unfamiliar with the background of his new task. He assumed his new responsibility with buoyant confidence and a great good will that evoked an immediate response among the students and in the state.

Whatever plans President Burton may have had, whatever goal he set for himself and the University, were never wholly revealed, much less realized. The World War intervened. During all of his term, campus, state, and nation were disrupted by the national war effort. The faculty and older students were disappearing even before he entered upon his duties. The campus became a military training center that was effective neither as a military organization nor as a teaching unit. The Student Army Training Corps remains only as an educator's nightmare, a military mistake that the War Department and the universities are resolved not to repeat. Its only memento on the Minnesota campus of today is the division of the academic year into quarters instead of semesters.

Nevertheless the years from 1917-20 made their contribution to a university that had entered on a career that even war or the rumors of war could not halt. A new School of Business Administration was the response to the popular realization that the economic processes had become too complicated to master without study and research. The number of colleges was kept at twelve by uniting chemistry and engineering under the same dean. More clearly a contribution of President Burton was his highly successful effort to provide the University with buildings and support adequate to care for the phenomenal increase in students at the close of the war. As we look back at this sudden jump in student population we know that it was largely a delayed concentration in one year of what would have taken place in three years without war. Coming as it did like the bursting of a reservoir, the Legislature and the state could not ignore it. The mounting thousands since that time have more than doubled the registration of 1920, yet unfortunately have made no such impression and elicited no corresponding increase in support. Were the university support per student now what it was in that post-war year, the University would be receiving more than twice what it has had in the last four years, and something like three million more than the Regents have requested in their biennial statement of needs.

BRICK, MORTAR, AND A BUILDING PROGRAM

The situation in regard to classroom and teaching equipment of all kinds is even more striking. President Burton conceived the plan of a ten-year building program, with a fixed annual sum of \$560,000 upon

which the University could count in developing an adequate physical plant. The Legislature approved, then the plan was adjourned and finally abandoned. The University has never had the happy experience of passing through what, half in jest, President Burton called "the brick and mortar stage" his plan would have provided. The building work that has been completed during the past two years—and it has been considerable—has been with funds from gifts, federal grants, and service enterprises and has therefore involved no state appropriation and met no need for teaching space. Even the chance to rehabilitate old buildings for this purpose must wait and two such buildings, the old Union and Shevlin Hall, are closed today because there is neither the money to remodel them nor funds for their upkeep. Only an emergency appropriation early in the next legislative session can prevent another year's decay and the waste of this much-needed space. The business men on the present board have not failed to point out in their discussions what their stockholders would say if they treated the investments in their plants in such a way. I am, please remember, reporting to you as a stockholder in the greatest single investment our state has.

COLLEGE PRESIDENT: THE JOB AND ITS SPECIFICATIONS

The presidency of a large modern university, particularly a state university, has become a complex of many duties that in turn gives free scope for a combination of the most varied and, humanly speaking, inconsistent talents. I wrote a definition of the office of university president long after I thought I was safe from earlier attempts by boards of trustees who, like little boys catching birds, were stalking presidential candidates with hands full of academic salt. I venture to quote it.

In some way there center under the administrative responsibility of the President's office at least six major functions or responsibilities. He is the choice of the governing board and their technical expert and official adviser. He is the head of the faculties and must have their confidence and support. He has his place to win in the respect of the current student body even if numbers and multiform duties make the old face-to-face contacts impossible. He speaks for the university of today to the alumni and seeks to voice the aspirations and ambitions of an alma mater that is obligated to renew and enrich her life even beyond the comprehension of her sons and daughters. Budget and finances and the support of the university are ever present problems for him and are intensified by every aspiration of the university to widen its scope or to do its old tasks better. Last of all he is by the nature of his position a servant before the public of all good causes and the high priest of the one faith held by all Americans—a belief in education. If a man can satisfy one constituency reasonably well he is called a statesman. If any man is even under suspicion of being able to do all the functions named above we unhesitatingly make him a university president.

I know no man who at the beginning of his career scored one hundred per cent on all the above items. If he exists and is at the head of another university, such a fortunate institution would never willingly see him go. The task of members of a board of regents is necessarily, then, to seek someone with power to develop through the years that combination of qualities that are most important to their university and its future.

Among those qualities one is inescapable, even in a state university where public relations are important and ever present. It is such character and native honesty, together with an appreciation of scholarship, which wins and retains for a president the loyalty and co-operation of the great body of his faculty. Having this, all other things shall be added unto him and his university. Without such confidence in good measure and despite honest differences of opinion, the university will not be a harmonious and effective unit and its supporters will pay high to appease discontent and will fail to build and rebuild the faculty, which is after all the true university.

A FIFTH PRESIDENT IS SELECTED

I have just read the resolution of the committee of the Regents that nominated Lotus Delta Coffman, and on April 14, 1920, asked the confirmation of the full board. The language in which the committee presented Dr. Coffman's qualifications is highly eulogistic, but I suspect that neither the committee nor the board fully realized that in choosing an acknowledged leader among schoolmen they had chosen one whose powers of growth made him at the time of his death an outstanding educational statesman. Knowingly or not they chose him for qualities they thought essential to the institution as it was to be. They were not mistaken, and to those qualities they saw, he added or revealed and developed others equally essential. All these qualities he combined, as a close associate said when he was gone, into an integrated personality. He displayed an open mind where views were in conflict but his decisions were prompt and a line of action once worked out was adhered to unwaveringly. A conservative in his approach to the new, he followed where the facts in educational studies pointed, and welcomed and supported experiments that promised any reasonable hope of improving educational procedures. He earned and kept, by his fairness and forthrightness, that confidence of his colleagues which is so essential in initiating change that depends upon the co-operation of a group collectively so conservative as a college faculty. We who worked with him still stand too close to him to write the final appraisal of his place in the making of the University of Minnesota. I venture to say, nevertheless, that in its formulation one fact will bulk large. It is that in a time of readjustment in the educational as well as in the secular order, no responsible educator seeking light felt he could neglect what was being done under Coffman at Minnesota.

THE YEARS SINCE 1920

The story of this progress since 1920 is covered in detail in the growing bulk of the presidents' biennial reports. In the many measures that were taken for the improvement of conditions for faculty and students and nonacademic employees, this greater and more impersonalized institution was feeling the force of a personality through impact of the president upon the faculty, and of the faculty upon the students, through their more intimate knowledge of the problems of the modern student. The scholar and his freedom, and his service by reason of that freedom, were vigorously defended both by pen and voice. President Coffman called on his staff again and again to exemplify the mark of their high calling as

teachers and as models of character and of devotion to their duties. No university can grow so large that the president, if he is a leader, cannot and does not make his impress upon all who throng its halls, and through them upon the spirit of the state.

The reports calendar new administrative and educational programs and emphasize research and service even as the University struggled to house and teach the increasing enrolment that President Coffman fore-saw from the first. No university, he rightly contended, was too large if it did its work well, and his concern was to have the University do its work well, to demonstrate that a state university could do better for its constituency than any other type of institution did for a selected body of students.

If President Coffman were to make his own selection of the steps by which the making of the University was forwarded under him it would be a selection, not a catalog. He would modestly pass over what I would put first in the list and that is those parts of his reports in which he came, in increasing measure, to expound his own views of education, and especially higher education, in a democracy, and of the dependence for survival of a democracy upon the grasp by an enlightened citizenry of its changing and increasingly complex problems. Those writings will long stand as the clearest and most vigorous expositions of the place and function of the state university. They are not a defense but a confession of faith; they are a creed whose tenets need to be studied again and again even by those who are in agreement with them. They are among the things to which the thoughtful can honestly apply the much misused term of true Americanism.

In a report written, even as is this one, in the midst of public confusion over national affairs, he inserted a paragraph that he headed "A Statement of Faith":

Let those who wish to be political and industrial leaders receive the support they deserve. As for me, I should prefer to be known in the years to come as one who stood in these days for strengthening rather than weakening education, as one who helped to modify and adjust it to meet the needs and demands of new problems and to prepare for a new day, as one who has not discarded the great tradition of America that universal education is essential to public welfare and that a highly educated leadership is basic to human progress. Although I may belong to the University at present, I prefer that my voice shall be lifted in unison with those of the men who possessed the pioneering spirit in America and who dared to believe, in the midst of other great crises, that all hope was not lost and that the way out was to be found in a new baptism of faith, a renewal of the sources of strength. It would be an irreparable misfortune if we sacrificed both democracy and our children in the name of economy. I believe in national building that looks for things not yet seen, for accomplishments not yet achieved, for victories not yet won, for aspirations not yet expressed.

ACHIEVEMENT OF NEW STATURE

Any selection of signal developments that President Coffman might have made can be made for our purposes in retrospect with the guidance of the educational philosophy embodied in his reports. Such a list could be checked by those associated with him. I venture to say that he would

have chosen those things which also fit the theme of this report, the making of a university, by the response of a publicly-supported institution to the needs of its day. Those needs he found first in the varied training required by a growing and many-minded body of students. The necessity of knowing their individual abilities and ambitions meant a personnel and advising service and a constant contact with the high school system from which they came. Second, there were the ever increasing demands for service to a state whose resources and economic future, as well as whose cultural life, depend increasingly upon the scholar and his researches. Last but not least, there must be the quickening and steadying of the public life of the state and of every community by educated citizens, guided by reason more than emotion, and grounded in an abiding faith in the American way of life.

These aims when translated into realities meant a faculty of competent scholars and teachers, adequately paid and materially equipped, secure in the freedom of their research and teaching from the special groups and the intolerance of those who would have all knowledge end where their ignorance and prejudice begin. It meant a constant study of the problems of education on the university level and constant adjustment of programs to the students' needs and abilities. Toward these ends President Coffman drove with great persistence and what seemed to be exhaustless energy.

The means and measures and men used to his purpose in seventeen active years become too varied to name or evaluate but they shifted the University literally from the old knoll as a center to a new and statelier campus quadrangle and to the new responsibilities of an institution known round the world for its faculty and its graduates and its contributions to knowledge.

There were and are many outside testimonials to this new stature of the University of Minnesota. One came from abroad in the young scholars from foreign lands who came for advanced training in the Graduate School. An equally significant one came from within the country in the grants from eastern foundations for the support of the research of the staff in many fields. Industrial concerns supported from their funds promising young scholars to study their problems, paying out of the company treasury stipends, tuition, and costs of materials. It was funds from the Rockefeller, Carnegie, Laura Spelman, and Commonwealth foundations in New York, and from the Citizens' Aid Fund and private donors that initiated some of the most significant work on the campus, work that ceased or diminished as these grants expired. Whether it is to the credit of the state or not, it is the truth that such a grant enabled us to set up and carry until this year one entire unit, the General College, with eight or nine hundred students. That money is gone but the students still come for education. A financial wizard could not slice the present budget any thinner and even pretend to give them what they and their parents expect.

THREATENED LOSS OF INDEPENDENCE

Twice during the 1920's there arose serious threats against the freedom of the Regents and the university administration to conduct the University's affairs toward the ends for which it was established and is

maintained. The two threats were met and conquered by the people of the state through their representatives.

The first was the possibility—indeed it was more than a possibility, it was a probability—that the real management of the University would pass from the Regents to the Board of Administration and Finance, the “Big Three.” The decision of the State Supreme Court in the Chase case made it clear that the representatives of the people when they framed the state constitution had placed the control of the affairs of the University so firmly in the hands of the Regents that nothing short of a constitutional amendment could wrest it from them. The decision was a belated tribute to the pioneer founders of the University and the state. It put into the hands of the Regents and the Legislature who have the wisdom and courage to use them, the means to defend this great institution against the passions of a moment or the pressure of self-interested groups.

THREAT AGAINST TEACHING

The second threat would not have seemed so serious—indeed would probably never have been attempted—if the decision in the Chase case had come first. It was the introduction of an anti-evolution bill in imitation of the law that through the Scopes trial subjected Tennessee to ridicule and humiliation. There was a hearing in the House Chamber on the Minnesota bill. The University was thoroughly prepared, but honor should go to the representatives of the privately endowed institutions, Catholic and Protestant alike, who appeared against the bill. Some of them did not believe in evolution as they understood it but they knew that if college curriculums were to be determined by legislation forced through by the clamor of organized propaganda and pressure groups, their institutions, as well as the University, would not be centers of learning but purveyors of a hodge-podge of legalized obscurantism. The statement with which President Coffman closed the hearing left no phase of the issue of the freedom of teaching untouched. It was a document which he had based on several memoranda and shaped to his own purposes. The basis, I may say now, was a masterly paper prepared by one of the finest minds and most truly religious spirits that ever taught at Minnesota. I mean Professor David Swenson. The bill was defeated in the Senate by a vote of 55 to 7 and was never reported out to the House of Representatives. This, I think, justifies what I said about the representatives of the people protecting the University at a vital point.

The story of this incident may seem to some like the recall of something dead and gone and better forgotten. But democracies can no more afford to forget than they can afford to close their eyes to the present and its implication for their future. As a form of government, democracy makes great demands on the hindsight and the foresight of its citizens—impossible demands the dictators say. No one can deny that its preservation depends upon the devotion and understanding of the products of its schools quite as much as upon billions spent to ring it round with iron and steel. Its freedoms as well as its inner restraints must be exemplified, not taught by fleshless words, not only in its schools and colleges themselves, but in the homes behind the schools. If a powerful lobby can be formed by those who do not like what scientists have discovered and

teach in biology, some other group can take advantage of the confusion of any crisis to press their demands. This will be done quite regardless of the general interests or of the essential duty of a university to seek truth with an open mind and eyes unclouded by prejudice and passion.

THE PRESIDENCY AS A VANTAGE POINT

Despite President Vincent's witty description of the presidency of a state university as a benevolent despotism tempered by assassination, it is a vantage point from which to view the mind and working of American democracy. I do not refer primarily to the activities and conflicting views of the faculty or the student body. Even here my participation in Washington in war days, in an attempt to get unity of program among major departments of government, made me think I had dropped into a faculty meeting of heads of departments at, let's not say Minnesota but some other university I had been connected with, by preference an endowed one. As to how self-government works among students I can only say that if the mayor of any city of fifteen or twenty thousand has as orderly a body of self-governing citizens he is a comparatively care-free public officer. The maturity and restraint of the discussions in the All-University Student Council or the Women's Self-Government Association would, if published and imitated, improve the tone of the *Congressional Record*. Our student forum, where hundreds of young citizens hear both sides of important questions, is a model of what should be going on in every community. The annual student-managed conferences on such vital topics as labor and international affairs produce papers and discussions that have been printed and welcomed as real contributions to the understanding of complex current problems. These are encouraging examples of how democracy can and should operate. It is true that some outside observers have said that we have an unusually alert and yet serious-minded body of students on the Minnesota campus; "dynamic" and "electric atmosphere" have been phrases they have used. I hope this is not simply the flattery of a speaker who has just faced the challenge of an audience of five thousand young, eager, yet quietly critical students, or the polite comment following a stay of two or three days watching thousands of them about their work and play. My faith in the sober competence and serious purposes of the great body of students on every American campus gives me confidence that the comment about Minnesota would hold true elsewhere.

It is as a vantage point for observing the workings of democracy beyond the campus that a university presidency furnishes opportunities. It is true that the Regents have, by the approved procedures of our business affairs, guarded against the intrusion of pressures to obtain contracts, make sales, and the like. The University cannot even deal with firms with which board members are connected. Our institutional civil service for nonacademic employees, and the scholarly standards maintained for appointments and promotions on the teaching staff, hold at arm's length the demands that beset a political officer to appoint party workers, relatives, or indigent or incompetent friends. Even our rule against hiring relatives, which seems absurd in some cases, does in the long run protect the University against the dangers and dry rot of nepotism.

If then you are in a position to prevent exploitation by the interests named, say the critics who see only the seamy side of democracy, how real can be your view of it from behind a president's desk? Quite real, I assure them, and not derived from—although tempered by—a life-long study of history and social action. If, as we have believed from Jefferson's day to ours, our democracy is dependent upon an educated citizenry, then education is the interest of every citizen. His attitudes toward it are a barometer of the values he attaches to the preservation of its spirit amid the varied forms it must take in realizing "the general welfare." What about the mind of a democracy from this angle?

A CONFESSION OF BIAS

May I preface my answer with a confession of my own bias. It is personal, it is true, but should be a privilege granted one who is closing almost three decades of service to the state through our University. My bias arises out of the fact that my youth and formative years were spent in small towns in two neighboring states and my first college degree was earned in a state university then rising to importance by the growing strength of its faculty. The rest of my training was in Europe and in a large endowed eastern institution. After five years of teaching in a similar institution, where security and promotion seemed assured, there came the first call I seriously considered. It involved a return to the Middle West and to a rising state university. It was for me a career choice of considerable importance. It was then that I decided that I believed in the future of the state-supported institution with its great possibilities as the expression of democracy's faith in a higher education that compassed teaching, research, and public service.

Difficulties and dangers from misunderstanding there might be in a state university, as there are in any democratic experiment, but I felt that in the end the good sense of the great mass of intelligent people would rally to support their own tax-supported institution if they felt its regents and staff were striving to do an honest job. This faith, this bias if you will, was strengthened by the memory of one incident in my sophomore year at the University of Wisconsin. A clamorous group, who thought university students should not be made to think by exposure to conflicting views, objected to the presence on the staff of one of America's most distinguished economists. The gravamen of their charge was that he had written a little book, still one of the best simple summaries of French and German socialism. It told briefly also of the groups in America at Brook Farm, at New Harmony, Indiana, and at Icaria, Louisiana, who in the forties and fifties set up mild but unsuccessful forms of communal living. The noise made by the objectors was out of proportion to their numbers. Nevertheless, there was a kind of "heresy trial" with hearings in the state capitol building. I think the presiding officer was Senator William F. Vilas, then president of the regents and the most deep-dyed conservative in Wisconsin public life. As might be expected, the good sense of the press and public in the state correctly appraised the trivial character of the attack on the university. The result was not only a vindication of the particular professor but of the soundness of public opinion when it grasps the real issue. The resolution of the

board, written it was said by Senator Vilas, is now recorded on a bronze plaque affixed where all who enter the main building of the university may read: "Whatever may be the limitations which trammel inquiry elsewhere, we believe that the great State University of Wisconsin should ever encourage that continual and fearless sifting and winnowing by which alone the truth can be found."

This incident and its outcome, it seems to me, justify both my bias toward the state university and my dictum that its presidency and any familiarity with its history give a basis for a faith in the future of American democracy. Certainly the even keel on which the University of Minnesota has been able to pursue its work has strengthened that faith. The citizens of very few states have made a better record. I have sought the explanation and can find elements of the answer in various things, such as the balanced and yet intimate interdependence of city and rural interests, in the dignity and independence of the Board of Regents, and in later years in the fuller realization that the University is here to serve all classes and groups and not as the handmaiden of any one. Always I come back to the combination in our population of the early New England and seaboard pioneers and the overwhelming preponderance among later settlers of European origin of those nationalities whose intelligence and enterprise and traditions made them sons of the American spirit before they had learned the language. For them their children's opportunity to know a fuller life and to be prepared to share it through education, was and remains a mastering purpose. Of this the history of the state and the University are ample testimony.

A UNIVERSITY OF THE PEOPLE

To such testimony I can add the evidence that comes in letters from parents and above all in the handclasp and simple tributes of the thousands of mothers and fathers who come each year to visit their children and the campus and to meet with the faculty. I could quote many outside testimonials to the integrating influence of the University as a morale builder for students and faculty. A president of a great university sensed it at the close of his first day on the campus and asked me, "How do you get such co-operation at the University of Minnesota?" A former member of the staff who was here but one year on substitute appointment confessed that after a dozen years elsewhere he and his wife looked on Minnesota as their real home. "What is it you do to people at Minnesota that makes them feel that way?" he asked. The most touching and significant tribute came from another source nearer home. One of the finest types of skilled workmen on our buildings and grounds staff was making some repairs on the old Governor Pillsbury house where the president of the University has lived since President Northrop's retirement. In the midst of his work he suddenly looked up and said to Mrs. Ford, "I love *our* university. I have been with it many years and my children graduated from it." To me that remark, in a voice that betrayed the speaker's Old World origins, was a moving and profound summary of much of what I have been trying to say. It went near to the heart of what America is and must remain. I would rather be president of a university of which this could be said, one that keeps

its doors and its opportunities open to ability from whatever social or economic level, than direct one whose standard of student expenditure makes it available only to the sons and daughters of the wealthy and gives them the idea that America is of and for those of like economic status.

THE EXPRESSION OF INTOLERANT OPINION

It is true that the conduct of a university brings to one's notice other and more disturbing evidences of the workings of democracy, especially in a time like the first World War or the present one. There is the citizen who writes in and demands the discharge instanter of from one to a dozen professors who he finds do not color their views or research to support his opinions or his interests. But he is offset the next day or two by someone who commends the same group or wants another dozen dropped for some other cause. What is there to do in a brief reply but to confess modestly that you are no Hitler and that in his unconscious Fascist attitude your correspondent is paying university professors the same profound compliment that Hitler paid them when he discharged, exiled, or interned all who would not become yesmen and parrot the doctrines of *Mein Kampf*?

These aberrants from the general run of citizens have of course the right they would deny to others, that of expressing their opinions. There will always be those who do not understand that good teaching in controverted fields requires the exposure of the student to different points of view if he is not to be left helpless and unarmed when he faces them in the world outside the campus. Such teaching is the very antithesis of the indoctrination with which the unthinking critic confuses it. Such occasional critics are not a serious danger unless in some crisis their unconscious Fascism makes them the victims of some more sinister group which, by playing upon their prejudices, would transform them into blind supporters of un-American doctrines and measures. That possibility would bring into the danger zone much more than educational institutions, and imperil not educators alone but every citizen however humble, and the humbler he is the greater his danger.

STUDENTS—YOUR SONS AND DAUGHTERS

Enough has been said perhaps in earlier paragraphs about the student body. They are your sons and daughters or the sons and daughters of your neighbors. You know their inheritance and the views to which they have been exposed and the characters they have formed before they left home. If they come possessed of any "ism," it is in no greater proportion than it exists in the homes and communities from which they come. The edge and the very substance of inimical doctrines is nowhere more quickly worn away than in a university and by the assumption of responsibility and the weight of years. Two leading so-called radicals as students are now the sobered and efficient directors, in a metropolitan center, of a thoroughly objective, nonpartisan educational experiment in which many of you share. A third, who was labeled a troublemaker by a conservative faculty, is now perhaps the best and most favorably known of our recent graduates.

Even if I am always conscious as historian and educator and parent, of the age-old differences and misunderstandings between successive generations, I am still left puzzled by the credence given to vague rumors about a student body. I can never understand why people who let their own children air their views and try their wings think it is a matter of public moment when their neighbor's children do the same things. The same things they listen to with forbearance in their homes and then wisely forget seem, when borne on the wings of unconfirmed rumor, to have the iron logic of matured purpose. A striking and commendable trait of young people is a desire to form organizations and to work with their fellow students in matters that concern the group they can form. In our large student population there are about three hundred such organizations with infinitely varied social, recreational, educational, and discussion purposes. They must each have a faculty sponsor and register their program and membership if they are to be officially recognized and have the privilege of meeting places on the campus and the distribution of notices to members through the university post office. Some probably are organized for the sake of organizing and as outlets for a managerial urge. Not so long ago a student approached a faculty member to ask him if he would be sponsor for a Socialist club that he and some others wanted to form. The professor really had many current duties and declined. The student who evidently did not quite credit his reasons said, "Why do you faculty members take us students so seriously? Most of us in this club will probably go out and vote the Republican ticket. That is what I intend to do but we can't get control of a Republican club and manage it." That is not quite the case with that infinitely fractional minority, among twenty-two thousand, who would call themselves Communists. Of this tiny group, no one could say how many comprehended and were adherents of the subtleties of dialectic materialism and how many were exhibitionists urged on by mature citizens to seek publicity through something that could be called martyrdom. In any case they are not a recognized student organization because they will not conform to the rules of the University by registering their membership. The reasons given are illuminating. At one time it was fear that the faculty would discriminate against them, which reveals what the student thinks about radicalism in the faculty. At another time it was a fear that if their names were known their fellow students would not elect them to student offices, a reason that would indicate what the body of students thinks of their doctrines.

ART OF OBJECTIVE TEACHING

That the record may be complete I must confess that it is possible for an occasional lapse by either a faculty member or a student, or both, to lead to misunderstanding of the whole group to which they belong. The student daily paper is conducted on so high and responsible a level that its lapses into journalistic sensationalism are rare but always magnified by the avidity with which the headlines, if not also the news items, are caught up by the press at large. Anything connected with the University has news value and apparently anything done or said by a college student, only yesterday in a high school, has an enhanced interest and an

authority his mother would not give to his choice of a necktie or socks. There is the occasional enthusiastic teacher who still lacks the skill which enables him to present controversial subjects in an atmosphere of objectivity. That is an acquired art for most and comes with experience. The only substitute, and an uncertain one, is to say over and over again, "This is not my view but you must be familiar with it if you are to see all around the subject." If such an alert instructor, forgetful of due caution, has before him in his classroom a student who is too immature or obtuse to follow a line of thought or understand the purposes of a whole course, the results make the judicious weep, as I can testify from a recent experience. The one comfort is that they are rare amid hundreds of teachers and courses and tens of thousands of students. To this comfort may be added the reliance one can place on the good sense of all those who daily find it necessary to discount rumor and gossip, and that includes all of us.

FAITH OF THE STUDENTS

Perhaps the temper of thoughtful students is best revealed in a passage written by two students as part of a reply to a criticism more petulant and sweeping than any that has come to my desk. The students speak for themselves better than I can:

For all the impersonality and standardization of our time, we believe that individuals have an intrinsic importance which transcends their wealth, their physical value, or their usefulness to us. In short, we think that man is an end in himself. The rest of our political and social ideals are built on this estimate of the individual. We care about those ways and forms which give people the greatest scope for their full development. Specifically, we believe in the concept of freedom because it allows each person to realize his own particular potentialities. We believe in the institution of Democracy because it permits all to take part in shaping the common destiny.

Almost everywhere now except on this continent these beliefs are abstract ideals only, if they are allowed to be thought of at all. Because we are citizens of the United States, they are more than that for us. Our nation is the only one which has been dedicated to these ideals from its origin. Ours is the only nation whose entire population is made up of people who are citizens because they or their ancestors repudiated hate and oppression in order to live by these principles. And thanks to our size and resources we come nearest to being nationally self-reliant. Therefore, while we know that these ideals have not been fully realized for millions of Americans, still we are more aware than ever before that we have a better chance of achieving them here than anywhere else. This conviction, as well as our natural allegiance, compels us to put the United States first in our loyalties.¹

THE AMERICA WE DREAM OF CREATING

If our students have grasped these fundamentals, then there is infinite hope for their country's future and a profounder meaning than he realized in the remark of a distinguished visitor as he left the Minnesota campus: "I felt that this was the America we had dreamed of creating."

¹ Kingman, Brewster, Jr. and Spencer Klaw: "We Stand Here." *Atlantic Monthly*, 166: 277-79. September, 1940.

Perhaps I should close at this point and on this note. In the procession of the years the University has striven as best it could to keep step with the state's ever increasing demands for education, research, and service. Even though the story here told has been foreshortened, it reveals how the candlelight in the schoolroom of the University at the Falls of St. Anthony has grown brighter and brighter and now throws its light like a beacon far beyond the boundaries of the state. Given the power and support it needs now, that light may help us and our children to see the way to a solution of our present problems consistent with the highest aspirations and noblest traditions of our past.

Let me close with words from Governor Pillsbury's message to the Legislature in 1877: "I invoke at your hands such fostering care of the educational institutions of the State as will ensure a growth commensurate with a proud material development, and adequate to the wants of an expanding future." I can only add the appeal that in support of this vital bastion in the ramparts we watch, your support and fostering care will not be "too little and too late."

THE PRESIDENCY

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THE PRESIDENCY

THE DEATH OF PRESIDENT COFFMAN

Because of illness, President Lotus Delta Coffman was granted a leave of absence for the academic year 1937-38. Apparently recovered, he returned to his office on July 1, 1938.

On Thursday evening, September 22, 1938, President Coffman died suddenly at his home, the first president of the University to die while holding the office. Death was attributed to a coronary thrombosis.

Funeral services were held on Monday, September 26. A private service at the home preceded a public service in Northrop Memorial Auditorium. All departments of the University were closed on that day.

The funeral address was delivered by the Reverend John Walker Powell, a member of the university faculty and long a friend of Dr. Coffman. The text of the address follows:

MY FRIENDS:

We have assembled here this morning to pay our tribute of love and reverence for our fallen chief, struck down in the heat of battle as he led us against the enemies of ignorance, of prejudice, and of false ideals which threaten the life of the world. We are here no less to interpret to the community and to the state the significance of the loss which has befallen us in his death. In the words of King David concerning the death of Abner, who had led the armies of Saul: "Know ye not that a prince and a great man hath fallen this day in Israel?"

For four days a stream of telegrams, letters, newspaper comments, has poured in from every part of the country, bearing witness to the affectionate regard and high esteem in which he has been held by educators and by public men in all walks of life. His place among the foremost leaders of American thought and life is recognized by all.

It is for this very reason that this is more than a simple funeral service. It is a service, not for the dead but for the living. President Coffman's work is done. The book of his life is closed. The Master whom he served in simple loyalty has called him to his reward. As Stanton said of Lincoln, "He belongs to the ages." In Lincoln's own words, it is for us, the living, to be here dedicated to the task to which he gave the last full measure of devotion.

Have you never noticed how often death gives a certain strength and dignity to the face of a friend, revealing qualities of which we were dimly conscious but which we never fully recognized? The furrows graven by care and suffering are ironed out, and the features fall into the essential lines of character.

In somewhat the same fashion death seems all at once to reveal the fundamental qualities of a man. The accidents of manner and temperament are forgotten, and the elements of strength and worth stand forth in all their beauty and impressiveness. So it is with Dr. Coffman. Yesterday we might have questioned his judgment in matters of policy, we might have argued with him over administrative detail—today all these things belong to the past, and he stands before us serene and strong in the simple integrity of his character, in the soundness of his essential judgments, his quiet courage, his patient mastery of details, the clarity of his intelligence, the unflinching intellectual honesty with which he faced the problems of the present world.

Two incidents come to my mind, illustrating from different angles the character of the man.

A few weeks after he entered upon his duties as president of the University I met a member of the board of regents and asked how the president was getting

on. He replied with a somewhat rueful grin, "He never leaves anybody in a moment's doubt as to who is president of the University." There, as it seemed to me then—as it seems to me now—there spoke the essential courageous honesty of the man. He was the president of the University. Upon him rested the final responsibility. It was upon his judgment that the welfare of the institution must depend. So he made the decisions, he accepted the responsibility, he yielded the helm of his ship to no man. That has been his characteristic through all the years of his administration. He welcomed counsel, he listened to advice, he took time to study problems; but in the end the decisions and the responsibility for enforcing them were his and his alone. He was simply incapable of anything else.

The other incident was the occasion of his introduction to a meeting of university alumni a few years ago in a western city. In presenting him the toastmaster spoke of the honor they felt in welcoming as their guest the president of the University, and harked back to the loving admiration which all the other alumni felt toward President Northrop. When he rose to speak Dr. Coffman said, "No one will ever talk that way about me! President Northrop lived in a day when the president of the University might know every student in the institution personally. He could call the members of the senior class by their first names. I live in a time of quantity production. I am at the head of a great plant. Two thirds of the students hardly know me by sight. The old days of personal contact are gone, and education today is institutionalized, perhaps mechanized. I am merely the executive manager."

Here you have the simple directness with which he was accustomed to face facts. He wasted no time in lamenting the changes, he simply sought to adjust himself to them. Yet in his modesty he undervalued the significance of personality, even in a high-powered production plant. He discounted the fact that the qualities of his own mind and character penetrate the institution down to the very kitchens of Pioneer Hall and the activities of the training squad on Northrop Field.

It is true that no university president today could win from the students the deep personal devotion and reverence which we of an older generation felt for Cyrus Northrop. It is true that if Dr. Coffman had possessed certain superficial gifts of rhetorical brilliance and oratorical magnetism he might have awakened in the student body an emotional enthusiasm similar to that which moved the followers of Huey Long.

Nevertheless, you and I know that every department in the University today is characterized by ideals of intellectual integrity and cultural sincerity which have been enhanced and held to their course by the example and influence of our President's capacity for clear thinking, for single-minded devotion to truth. As time goes on, the men and women who have been graduated from this institution under his administration will recognize more and more clearly the significance of his influence upon their ideals, and the stimulating effect of his personality upon their characters.

Today our emotions are far from simple, and more direct than this. The University has lost a great leader. Many of us mourn the loss of a beloved and honored friend. We honored him as our chief, but we loved him for the democratic simplicity of his character, his quiet humor, his modesty, his loyalty, his manliness. There were in him no petty meannesses which we have to forget, no favoritism to arouse jealousy or leave a sense of injustice to rankle in our hearts. We are every-one of us better, wiser, stronger men and women because this man lived. We must in every way endeavor to further the cause of truth now that he is gone.

No farther seek his merits to disclose
Or draw his frailties from their dread abode—
(There they alike in trembling hope repose)—
The bosom of his Father and his God.

With the spread of the news of President Coffman's death, hundreds of messages of sympathy came to the family and to the University. There were also many formal resolutions, forwarded by organizations with which the late president had been actively associated. Three resolu-

tions, and the tribute of the student body, as expressed editorially in the *Minnesota Daily*, are reproduced here:

A RESOLUTION BY THE REGENTS OF THE UNIVERSITY OF MINNESOTA

This resolution was adopted at a meeting of the Board of Regents on Saturday, September 24, 1938:

When Death laid a gentle hand on President Lotus Delta Coffman he freed a brave and sturdy spirit that had labored for great ends and achieved worthily. His record of almost two decades as president of the University of Minnesota is, and will remain, an open book where those who would comprehend the place of higher learning and of scholarship in a democracy can follow the steps by which he led a state, through its University, to ever broadening conceptions of its obligations to its youth and to the future that will be their present. We, the Board of Regents, who have appraised and approved his sound and discerning judgments and ventured where he boldly led, turn from any catalog of the steps by which the University of 1920 has become the University of 1938. We do not attempt even a faltering and incomplete expression of our own corporate and individual sense of loss and sorrow. There are times when unspoken loyalty, respect, and affection speak louder and with richer meaning than any words: this is such an occasion.

Even under our sense of the loss suffered by the University and by those who cherish it and have shared its benefits, the Board of Regents remembers first the family whom he loved and whose love sustained him. To Mrs. Coffman who has enriched and graced his life and the life of the University community, to the mother whose love and pride spanned the years from her son's boyhood on the farm to a position of honor and influence in public life; to the son and daughter whose character and welfare were the central interest and comfort in a home that held them and their children still within its circle, the Board of Regents would convey all that words can carry of human sympathy in days so charged with sorrow.

Be it resolved that this resolution be spread upon the minutes of the Board and transmitted to those near and dear to President Coffman.

RESOLUTION OF THE UNIVERSITY OF MINNESOTA SENATE

The following resolution was adopted at a meeting of the University Senate on February 16, 1939:

Lotus Delta Coffman, fifth president of the University of Minnesota, died in Minneapolis on September 22, 1938. He was born at Salem, Indiana, January 7, 1875. After an education in the public schools of that state, he graduated from the Indiana State Normal School in Terre Haute and from Indiana University (A.B. 1905). Thereafter he pursued graduate studies at Indiana University (M.A. 1910) and Columbia University (Ph.D. 1911). In recognition of his high achievements as educator and administrator, President Coffman was awarded honorary degrees by Carleton College, Columbia University, Indiana University, the University of Michigan, Northwestern University, the University of South Dakota, Williams College, George Washington University, and the University of Denver.

In 1896, Mr. Coffman began his professional career in the schools of Indiana, where he served as principal and superintendent. He continued as supervisor of the Training School at Charleston, Illinois (1907-1909, 1911-1912), as scholar and as lecturer at Columbia University (1909-1911), and as Professor of Education at the University of Illinois (1912-1915). In 1915 he came to the University of Minnesota as Dean of the College of Education, and on July 1, 1920, he succeeded Marion LeRoy Burton as President.

Numerous organizations profited from President Coffman's sane idealism and shrewd judgment. He was a trustee of the Carnegie Corporation of New York and of the Carnegie Foundation for the Advancement of Teaching, a member of the governing board of Chevy Chase School and of Stephens College, and had served as president of the National Association of State Universities, of the North Central Association of Colleges and Secondary Schools, of the National Society for the Study of Education, of the Association of Urban Universities, and of the National Society of College Teachers of Education. He served as chairman of the American Council on Education, of the Minnesota Commission on Land Utilization,

and of the national Commission of Inquiry on Public Service Personnel. He was also a member of a long and distinguished series of state, national, and international committees, councils, and associations, particularly in the fields of education and public service. He directed or participated in educational surveys in North Dakota, Kansas, Texas, Missouri, California, Georgia, North Carolina, Rutgers University, New York University, and the University of Chicago-Northwestern University survey. He influenced educational policies in New Zealand and Australia during his residence there as visiting lecturer and representative of the Carnegie Corporation of New York.

President Coffman's sympathetic and profound interest in the problems of young men and women was greatly accentuated during the depression years. The youth problem then became for him a matter of major concern, and to it he devoted special attention in his official reports and in his public addresses. It was from his consideration of the plight of young people that the plan developed of providing federal work-relief for deserving and promising college students—first on an experimental basis in his own state of Minnesota, and subsequently throughout the entire country. When the American Youth Commission was created, he was chosen for membership; and to the work of the Commission he gave unsparingly of his energy.

President Coffman published a large and impressive body of reports, addresses, and papers, which have shaped American thinking on university problems and on public service; collaborated on several text-books; and wrote *The Social Composition of the Teaching Population*, *Teacher Training Departments in Minnesota High Schools*, and *The State University: Its Work and Problems*. In this his last volume, President Coffman gave final utterance to his elevated faith in the state university as an agent of social progress.

During the eighteen years of his administration, President Coffman either instigated or gave decisive approval to such memorable innovations as the wide expansion of the University of Minnesota Hospitals, the establishment of the Institute of Child Welfare, the Committee on Educational Research, the General College, the University College, and the Center for Continuation Study, and the merging of special colleges into the Institute of Technology. He encouraged the creation of a department of Fine Arts, the establishment of the Artists Course of concerts, the erection of the Music Building and Northrop Memorial Auditorium, the bringing of the Minneapolis Symphony Orchestra to the campus, and the opening of the University Art Gallery. He kept athletics free from extra-university interference, fostered intramural sports, and supported the construction of the Stadium, which, from its earnings, has made possible the erection of the Field House and Cooke Hall. His constant interest in the welfare of students has its monuments in Pioneer Hall and Louise M. Powell Hall, and in current plans for a new dormitory for women and a new student union. His major concern, however, was for his faculty. He did everything possible to retain able men in the face of inducements from other institutions, to add to the staff both young scholars of promise and mature men of established reputation, to increase salaries, to encourage all types of research, and to give every teacher full freedom in his own classroom. He was eager to increase the security of the faculty, and to that end set up group insurance, created the University Grove housing project, and provided funds for retirement. Under such guidance, the University steadily increased in stature and in good repute.

No president of a great university has exercised his wide powers with more modesty, more patience, or more simplicity than Lotus Delta Coffman. Back of his unpretentious manner, giving drive and force to every utterance, were rich resources of mature judgment and unbiased justice, steady loyalty and unflinching courage. Expressing his vigorous convictions in direct and forthright terms, he was never ambiguous; University and state knew where their president stood and respected him for his candor. Central in the man and motivating every policy was an uncorruptible intellectual honesty, not dogmatic but receptive, willing to listen, eager to learn—the open-minded honesty of the true scholar. Thus President Coffman grew with his university; and with the passing of the years, he too increased in stature and in vision. Respected alike by those who accepted and those who rejected his ideals, and loved by those who in the vast reaches of the University came intimately to know him, he left no heritage of factiousness or strife.

Lavish eulogy of such a man is unseemly; let it be said merely that in his quiet dignity and in his simple strength, Lotus Delta Coffman was the ideal American democrat.

President Coffman is survived by his widow, Mrs. Mary Emma Coffman; a daughter, Mrs. Catharine Farrell Knudtson; a son, William Mansford Coffman; his mother, Mrs. Laura E. Coffman; and a brother, Dr. O. E. Coffman.

RESOLUTION OF THE GENERAL ALUMNI ASSOCIATION

On October 4, 1938, the directors of the General Alumni Association adopted the following resolution:

For the first time in the history of the University of Minnesota a President has been taken by death while in active service. We, the Alumni, recognizing the fact that, in a very real sense, President Lotus Delta Coffman gave his life for the University, wish to pay tribute to him and acknowledge the debt which all those who love their Alma Mater owe to his far-sighted leadership.

As we look over the eighteen years of President Coffman's administration, our first thought is likely to be of the tremendous physical growth of the institution which he promoted, the clusters of handsome new buildings giving unfamiliar contours to the campus as we revisited it, and the bewildering mass of students, doubled in number during his term of office. But more significant than these outward evidences of educational advance are those things pertaining to the soul of learning which President Coffman guarded with jealous care. The fostering of true research, the sturdy defense of academic freedom, the challenging of outworn traditional methods, the insistence on facing squarely the ultimate goal of education, the refusal to let the University be exploited by various interests which occasionally besieged it—these vital ingredients, without which higher education soon becomes enervated, were our late President's constant concern.

Among the many departments which he inaugurated, we Alumni should say a special word in appreciation of the establishment of the Center for Continuation Study. Here it is that the vast expansion of the University most nearly touches us, inviting us back into the academic fold for short periods of special study. May this building ever bring to our minds grateful remembrance of the man who conceived a new and greater service for a University to offer its alumni.

It is impossible even to suggest the many aspects of President Coffman's influence upon the life of the University. Specific annals record much, but much that is unrecorded is a blend of courage, honesty, and high-minded endeavor out of which grows Memory—greater than memorials. In our sympathy to the members of his family, whose intimate personal loss we cannot measure, we bring as some small solace, our offerings of multiplied Memory. To the Alumni of the University, this will always be the memory of a noble life given richly and triumphantly for a great cause.

TRIBUTE FROM THE STUDENT BODY

The student newspaper, the *Minnesota Daily*, in its issue of September 27, 1938, contained this tribute to President Coffman:

The inscription chiseled in the stone of the façade of Cyrus Northrop Memorial Auditorium proclaims: "The University of Minnesota—founded in the faith that men are ennobled by understanding, dedicated to the advancement of learning and the search for truth, devoted to the instruction of youth and the welfare of the state."

Probably no one believed more fervently in this challenging ideal than Dr. Lotus Delta Coffman; certainly no one contributed more in the arduous campaign to realize it. Today the University of Minnesota occupies a position of recognized superiority in the world of scholarship, and Dr. Coffman shares with a distinguished faculty and a generous commonwealth the honor of having elevated it to such prestige.

The leadership of any large university, especially any large state university, requires an extraordinary versatility.

The president must represent his institution before private, civic, and legislative agencies, enlisting their moral and financial aid to promote its prosperity. He

must cultivate his own garden, the college community, inspiring morale in the faculty and student body, developing administrative efficiency and tolerance.

The completion of these tasks would exhaust any ordinary man, but a university president has just begun his duties. He must vigorously repulse all invasions by those who wish to pillage academic freedom or inoculate students with treacherous doctrines; he must constantly struggle with the university's obligations to the students and to the state; and he must be prepared to redefine the purposes and, consequently, to change the techniques of education as social conditions make such alterations desirable.

Growth of University Proof of His Ability

The construction of over 40 new buildings, the improvement in various other facilities, the reception of gifts approximating 12 million dollars, the astounding increase in student enrollment, the extension of educational work into fields previously neglected, and the residence of able scholars during his presidency: all of these prove the competence of Dr. Coffman as the University's "ambassador."

The institution's requests for appropriations were always presented to the legislature and the general public by Dr. Coffman with considerable finesse. He recognized that those deprived of an opportunity to attend college were often suspicious of its social value and frankly acknowledged that it was possible to maintain a university with a staff of mediocre ability, teaching without adequate equipment in crowded classrooms.

But such an institution, he argued, would be an expensive deception: "The state as a whole would pay a sorrier bill when, because of shoddy education, there was a failure on the part of supposedly well-trained citizens to grasp or solve the tremendous social, political, and economic problems of our present and immediate future."

Buildings But Visible Evidence of Progress

"The youth of this generation," he continued, "will pass this way only once; they have but one opportunity, just one chance to qualify and equip themselves for the consideration of the problems of their day. It is our opinion that true recovery will come to that nation which lays enduring foundations on the things which the mind and the spirit build and that in the end all other things will be added unto them."

Because he emphasized the necessity for increased expenditures with persuasive logic and because his practical nature appealed to them, Dr. Coffman usually returned victorious from such engagements.

He understood, however, that stone walls do not a university make. "Buildings, gifts, and equipment," he wrote on one occasion, "are but the visible evidences of progress within an educational institution. The real work of the University is to be found not in the buildings about the campus, but in the work and activities of the teaching staff, in the stimulation given students, and in the encouragement which the University gives to productive intellectual effort."

In contrast to many administrative officers, Dr. Coffman was constantly stressing this primary function of the University. "How necessary it is that we should keep in mind at all times, everywhere upon every occasion, that the fundamental purpose of an undergraduate institution is teaching," he once said. "All other agencies and devices of every nature and description exist purely for the purpose of making the teaching as efficient as possible. . . ."

But Dr. Coffman regarded neither the acquisition of funds to operate the University nor the improvement of its standards as his most difficult task. "The most difficult as well as the most important responsibility of a university administration," he wrote, "is that of keeping the university free to do its work." This duty necessitated constant resistance to the pressures of individuals and of groups who wished to employ the university's prestige to further their own interests.

Concerned with Threat of Propagandists

During his presidency, he watched cultural darkness descend upon a great portion of the world, witnessed the humiliating subjugation of other institutions of learning, observed the strangulation of academic freedom by dictators.

And he noticed, with increasing apprehension, that the barbarian forces which had extinguished the flame of scholarship in other countries were gathering

strength in the United States. Already, he indicated, 20 states impose loyalty oaths upon their teachers although they impose no such oaths upon any other class of citizens. "This," he maintained, "is a clear infringement of a liberty cherished, fostered, and exemplified by the teachers of America since the days of our forefathers."

He was particularly concerned about the vulnerability of youth to propaganda. "The older generation declares that ours is a young man's world; the young men believe it," he wrote in a pamphlet on "The Province of Education." "Yet at the same time the folly and inexperience of youth make them easy victims of those who would manipulate them for ulterior purposes. The more majestic, the more flamboyant, the more emotional the appeal, the easier it is to lead the youth of any generation in any country."

Of course, students frequently resented the administration's vigilance against external influences as unnecessary protection, asserting that they were capable of distinguishing between the true and the false. Dr. Coffman could quote with sympathy the remarks of President Henry N. MacCracken of Vassar: "The dilemma of the college administrator today is that whenever he endeavors to defend his college from use as a recruiting ground he is charged with tyranny and suppression of free speech. Whenever he defends the rights of students to free discussion about any important problem, he is criticized as a radical."

But even the opposition, during its more charitable and intelligent moments, realized that Dr. Coffman was motivated only by a devotion to the true spirit of university life.

Naturally, he recognized that it was impossible—and highly undesirable—to transform a modern university into a "cloistered hall," divorced from the external world. "All the social currents of our generation flow across the campus. Of course they cannot be ignored, nor can we, Canute-like, demand that they recede from our academic gates." But when scholars invaded the world, he wanted them to behave as scholars; and when students examined propaganda, he wanted them to possess the aid of experience. The conflict between freedom and tyranny is a desperate engagement, and it is not surprising that Dr. Coffman considered discipline vital to success.

"We Must Never Cease Our Efforts"

"Only free minds can train citizens who will be free," he believed. "I sometimes am filled with despair, but I know we must never cease our efforts. Education is the only hope. The alternative is ignorance and confusion. And as Santayana said: 'The ignorant are constantly being duped by the things they think they know.'" This belief in education explains the ferocity of his opposition to the men and to the organizations threatening its freedom and, therefore, its very life.

When he submerges himself in causes greater and more enduring than himself, a man gains not only tremendous personal satisfaction, but deprives death of its melancholic aspect.

Dr. Coffman, confident in the faith that men are ennobled by understanding and that unshackled education preserves democracy, generously bestowed 18 years of affectionate attention upon the University of Minnesota. He sacrificed himself for a cause, and because it is a splendid cause, richly deserving such loyalty and service, sentimental regret becomes inappropriate.

Shakespeare said that the good men do is often interred with their bones. But this is pessimism that history has long ago repudiated. By his devotion, by his labor, and by his achievements, Dr. Lotus Delta Coffman has obtained a measure of immortality. Perhaps it is the only immortality to which men may aspire, and if it is, it is enough for men of courage.

"FREEDOM THROUGH EDUCATION"

The week before his death, President Coffman had completed the portion of the biennial report, 1936-38, for which he had assumed personal responsibility. This, under the title *Freedom through Education*, was issued as a separate university publication by the Regents, and widely distributed as a tribute to President Coffman. The booklet also con-

tained the convocation address which President Coffman had prepared for delivery at the opening convocation on September 29, the resolution adopted by the Regents following the president's death, and a bibliography covering the eighteen years President Coffman had held the office.

BUILDER OF THE NAME

In the foyer of Northrop Memorial Auditorium there is cut in stone a list of the builders of the name of the University of Minnesota. The Board of Regents at a meeting on June 17, 1939, voted unanimously to add to this list the name of Lotus Delta Coffman. As a memorial to the fifth president the board also, on March 22, 1939, voted to name the new student union building Coffman Memorial Union.

SELECTION OF SIXTH PRESIDENT

During 1937-38, in the absence of President Coffman, Guy Stanton Ford, for the preceding twenty-five years dean of the Graduate School, had served as acting president. On July 1, 1938, he returned to the deanship.

Following the death of President Coffman, the Regents (October 1) appointed the following as a special committee to investigate and report on the selection of a successor: Regents George B. Leonard, Frank W. Murphy, and Ray J. Quinlivan. At a meeting of the board on October 19, 1938, Regents Murphy and Quinlivan submitted the following report from the committee, from which Regent Leonard dissented:

To the Honorable Board of Regents, University of Minnesota, City.

GENTLEMEN :

Your committee which was appointed to consider and recommend a suitable person as "Chancellor" of the University of Minnesota "who shall be ex-officio President of the Board of Regents," respectfully reports that it has carefully considered the subject and recommends the passage of the following:

RESOLUTION

Resolved that Guy Stanton Ford shall be and he is hereby elected "Chancellor" of the University of Minnesota "who shall be ex-officio President of the Board of Regents," upon such terms as may be agreed upon by him and this Board and that the committee be requested to wait upon Mr. Ford, advise him of his election, discuss the terms of acceptance and report the results of their conversations to this Board.

(signed) F. W. MURPHY, Chairman

(signed) RAY J. QUINLIVAN

Dated
October 19, 1938.

This report was accepted by the board, by a vote of 8 to 4. Thereupon, the special committee (Regents Murphy, Quinlivan, and Leonard) conferred with Dean Ford, advised him of his election as sixth president of the University of Minnesota, and then recommended to the board the terms of acceptance as they had been discussed and agreed upon in conference with the president-elect.

When the new president joined the Regents following his election, he said:

I know that no matter what the pros and cons were before this appointment, they were all voiced in the best interests of the University.

I am familiar with the great traditions of the University. I knew all of my predecessors, and worked very closely with three of them.

It will be my objective to put the University ahead and I know I will have your full cooperation.

I'm young and impetuous and you'd better keep your eye on me!

THE NEW PRESIDENT

At the time of his election, President Ford was 65 years old, which means that he will, in conformity with university regulations requiring retirement at 68, serve until June 30, 1941.

Dr. Guy Stanton Ford, like many other eminent American educators, started along the educational trail leading to a university presidency by teaching in a country school. He was born in Salem, Wisconsin, on May 9, 1873, the son of Dr. Thomas D. and Helen E. (Shumway) Ford. Later he moved with his parents to Iowa, and when he was seventeen years old, he received his first appointment as a teacher in the public schools of Bremer County, Iowa.

He later attended Upper Iowa University, and received his Litt.B. degree from the University of Wisconsin in 1895. In 1933, Wisconsin honored him with the honorary degree of Litt.D., and he also holds an honorary degree from Lawrence College in Appleton, Wisconsin.

Following his graduation from the university, President Ford served as superintendent of schools in Wisconsin Rapids, 1895 to 1898.

The new president's first immediate contact with the University of Minnesota came in his senior year in college, at which time he was a member of the Wisconsin debate team which met a University of Minnesota team coached by Maria Sanford. The Wisconsin debaters argued the affirmative side of the question: "Election of United States Senators by Popular Vote." Dr. William Watts Folwell presided on this occasion. Little did the young debater of 1895 imagine that later he would occupy the president's chair at the University of Minnesota.

In 1899 and 1900 President Ford attended the University of Berlin and then returned to the United States to complete his work for a Doctor's degree at Columbia University in 1903. His first college teaching was as instructor in the Department of History at Yale University from 1901 to 1906.

From 1906 to 1913 Dr. Ford served as professor of modern European history at the University of Illinois and he came to the University of Minnesota from there in 1913 as professor of history and dean of the Graduate School.

President Ford was the director of the Division of Civic and Educational Publications of the Committee on Public Information in Washington, D.C. from May, 1917, to January, 1919. He has served as chairman of the Board of Editors of the *American Historical Review* (1921-27); as senator of Phi Beta Kappa; on the staff of the Laura Spelman Rockefeller Memorial Foundation (1924-25); on the Commission for Investigation of Social Studies in the Schools (1929-34); and on the Commission of Inquiry on National Policy in International Relations (1934).

From the beginning President Ford has played an active part in the program of the Social Science Research Council. He has been a member since 1923, was vice-chairman from 1933 to 1936, and chairman in 1936.

Since 1938 he has been a director of the National Bureau of Economic Research.

President Ford's scholarly interests have resulted in various publications. In addition to technical articles in the professional journals, he is author of *Hanover and Prussia* (1903); *Stein and the Era of Reform in Prussia* (1922); *Science and Civilization* (1933); *Dictatorship in the Modern World* (editor, 1935, revision, 1939); and *On and Off the Campus* (1938). He also served as editor-in-chief of *Compton's Pictured Encyclopaedia* and is editor of the Harper History Series.

Although trained in the social sciences, his interest in the natural sciences has been deep. His was a guiding hand in the early development of the Mayo Foundation for Medical Education and Research and the field of postgraduate medical education has for many years felt his influence. A diploma for distinguished service to science was awarded President Ford in 1933 by the Minnesota Chapter of Sigma Xi. He is also a member of the Minnesota Academy of Science.

His memberships in professional societies and organizations are many. He is a member of the American Historical Association and served as its president in 1937; of the Mississippi Valley Historical Association; of the Minnesota State Historical Society; of the Society of American Historians; and of the American Association of University Professors (associate). He is a member of Phi Beta Kappa; Theta Delta Chi; Gamma Alpha (honorary); Gamma Sigma Delta (honorary); and Kappa Delta Pi (Laureate Chapter). His club memberships include the Century Association, New York; the University Club, New York; the University Clubs of St. Paul and Minneapolis; Informal Club, St. Paul; and the Midland Hills Country Club, St. Paul.

Golf and the collecting of books are the president's major hobbies.

In 1924 he obtained a year's leave of absence to serve as a staff member of the Laura Spelman Rockefeller Memorial Foundation, and he has been a member of the Advisory Council of the John Simon Guggenheim Memorial Foundation since its creation in 1925. He is a charter member of the American committee formed to work with the Committee on Intellectual Co-operation of the League of Nations.

His eminent services in the field of education have been recognized by the conferring of honorary degrees: LL.D., 1927, Lawrence College; Litt.D., 1933, University of Wisconsin; L.H.D., 1938, University of Rochester; LL.D., 1939, University of Michigan; and Litt.D., 1939, Columbia University. In 1939 he received the distinction of election to the American Philosophical Society.

President Ford will serve as a member of the College of Electors of the Hall of Fame for the quinquennial election to be held in 1940.

As dean of the Graduate School, Dr. Ford's influence has been strong in forming the policy of the institution, especially with respect to teaching and research. Large endowments for research, made available to the Graduate School by the Rockefeller Foundation, stand largely to his credit, and his administration of them has contributed greatly to

the stimulation of research at the University of Minnesota. Dr. Ford furthermore played an important role in the development of the University of Minnesota Press, which in recent years has won a place of eminence among like enterprises in the United States.

President Ford has been intimately associated with many of the significant developments that have given prestige and reputation to the University as an educational leader among institutions. He was chairman of the Committee on Administrative Reorganization that sponsored the General College. Similarly, under his guidance the Board of Admissions was established to deal with the intricate problems of student admission. His imprint has been particularly strong upon the growth of the University Library, and for twenty-five years he served as chairman of the University Library Committee.

For many years as a lecturer in history, President Ford was one of the most popular teachers on the Minnesota faculty. In 1938, members of the 25-year class of 1913 elected him to honorary membership.

Twice Dr. Ford served as acting president of the University—first, in 1931-32 during the absence of President L. D. Coffman on a trip to Australia and the Orient; and again in 1937-38 during the illness of President Coffman.

President Ford married Grace V. Ellis of Bristol, Wisconsin, on September 6, 1907. A daughter, Jane Stanton, is the wife of Dr. W. H. Crawford, a graduate of the School of Dentistry of the University of Minnesota and now dean of the College of Dentistry of Indiana University. A son, Thomas Kingman (Minnesota, 1933), is on the editorial staff of the *St. Paul Pioneer Press*.

COMMENDATORY MESSAGES

The news of the election of President Ford was greeted with widespread favor, and newspaper comment, as well as hundreds of messages, both to him personally and to the University, gave evidence of this. From among these expressions, the following editorial from the *Minnesota Daily* (October 20, 1938) is included in this report as typical of attitudes on the campus, among students and staff alike:

Bouquets Are Due on Choice of Ford

The appointment of Dean Guy Stanton Ford to the Presidency requires the delivery of several bouquets.

First bouquet: to the Board of Regents, for possessing the wisdom to select a man whose educational ability, administrative experience, and personal character insure the continued development of the University and the preservation of its freedom from increasingly savage assaults. The fact that Dean Ford was a logical choice, that his long service deserved this recognition and that the Regents have made an inevitably popular decision should not decrease general enthusiasm. It would have been much easier to capitulate to some organized pressure group and elevate an incompetent executive or to postpone the appointment and deprive Dean Ford of this honor.

Second bouquet: to Dean Guy Stanton Ford, for meriting the promotion to one of the most important administrative positions in the state. It is a distinction which constitutes the final achievement of a life devoted to education and to this educational institution. This bouquet expresses sincere congratulations and should be addressed not to Dean Guy Stanton Ford but to President Guy Stanton Ford.

Third bouquet: to the people of Minnesota, for obtaining the services of a distinguished educator. The state is legitimately proud of the University; it can

only retain its pride while the University is allowed to progress without shackles. The state can, with justification, regard the appointment of Dean Ford as sufficient insurance against the crippling of its University.

All of these bouquets will be paid for by those who are genuinely concerned about the welfare of the University and by its students and faculty who realize, perhaps more clearly than anyone else, what they have gained by this selection.

SUCCESSOR TO PRESIDENT FORD

President Ford retires on June 30, 1941, and during 1939-40 the Regents took initial steps toward the selection of his successor, the seventh president of the University. At the April meeting, 1940, announcement was made of the membership of a special board committee to recommend a candidate or candidates for the position: Fred B. Snyder, chairman, A. J. Lobb, vice-chairman, A. J. Olson, Sheldon V. Wood, and Dr. E. E. Novak.

The following recommendation was also adopted at that time by the Board:

That the University Senate be requested to choose a representative committee of the faculty, with which the Regents Committee may advise and counsel in the selection of a president.

That the General Alumni Association be requested to choose a committee through which the Regents Committee may keep in touch with the alumni.

That the Board of Regents urge each member not to make individual commitments and to clear matters relating to the selection of a president through the Board's regular committee elected for this purpose.

At a meeting of the University Senate on April 29, 1940, the Faculty Committee of seven, Professor Richard M. Elliott, chairman; Dean Samuel C. Lind, Dr. J. C. McKinley, Professor William A. Riley, Professor Lloyd M. Short, Professor Edgar B. Wesley, and Professor Alburey Castell, was chosen to "advise and counsel" with the Regents Committee.

The Executive Committee of the General Alumni Association is to serve as the liaison group between the Regents Committee and the General Alumni Association.

EVENTS OF THE BIENNIUM OF SPECIAL INTEREST

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- National Defense, page 46
- Residence Status of Students, page 46
- Purchase of Experimental Dogs, page 48
- Handling and Control of University Property, page 49
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- Settlement of Federal Tax Claim Involving
- Athletic Admissions, page 55

EVENTS OF SPECIAL INTEREST

BY-LAWS OF THE BOARD OF REGENTS

On May 9, 1939, the Board of Regents approved a redrawn set of by-laws for the organization and transaction of their business. These by-laws, which rescind and/or amend all previous Board minutes inconsistent with them, are as follows:

MEETINGS

1. *Regular Meetings*

The annual meeting of the board shall be held on the second Friday in May of each year. At the annual meeting the board may set its schedule of meetings for the ensuing year.

2. *Special Meetings*

Meetings of the board may be called by the president of the board or by any seven members thereof at such time and place as they may deem expedient, and a majority of said board shall constitute a quorum for the transaction of business, but a smaller number may adjourn from time to time.

(Laws of 1851, Chap. 3, Sec. 17.)

3. *Place of Meetings*

All meetings of the board shall be held in the Regents' Room of the Administration Building at the University of Minnesota unless otherwise ordered by the board.

4. *Quorum*

A majority of the entire board shall be necessary to constitute a quorum. A smaller number may receive the reports of committees and declare an adjournment; and if a majority of the members of the executive committee are present, those present may resolve themselves into a meeting of that committee.

5. *Business Before the Board*

Departments of the University having matters for consideration by the board of regents shall submit the same in writing to the president of the board, at least fourteen (14) days before the date of the regular meeting of the board at which action is expected. The president may then refer these matters to the proper committee in order that the committee may report thereon to the board.

6. *Order of Business*

The order of business unless otherwise ordered shall be as follows:

1. Approval of minutes
2. Staff changes
 - a. Retirements
 - b. Resignations
 - c. Appointments
 - d. Promotions and transfers
 - e. Salary adjustments
 - f. Leaves of absence
3. Special items of business
4. Discussion of problems and policies

7. *Rules of Procedure*

All business coming before the board shall be conducted according to Roberts rules of parliamentary procedure except as modified by the board. Each member of the board who is present shall vote on every question, unless excused from voting by the board. The ayes and noes shall be called and entered upon the request of any member of the board.

8. *Minutes of Proceedings*

Minutes of the proceedings of the board shall be kept by the secretary. He shall cause them to be printed, bound, and preserved. He shall deliver a copy to each member of the Administrative Committee of the University Senate and provide the library of the University with at least five copies. As soon as practicable after the record of proceedings has been perfected, the secretary shall transmit to each member of the board of regents a copy of such record. All lengthy reports shall be referred to in the minutes, and shall be kept on file as part of the University records; but such reports need not be incorporated in the minutes except as and when ordered by the board.

OFFICERS OF THE BOARD

1. *Enumeration Of*

The officers of the board shall consist of president, first vice-president, second vice-president, secretary, assistant secretary, and treasurer. The chancellor of the University is ex-officio president of the board of regents. (Act of 1851, Chap. 3, Sec. 9.) The vice-presidents shall be elected from members of the board, but the secretary, the assistant secretary, and the treasurer may or may not be members of the board.

2. *Mode of Election and Term*

The officers of the board, other than the president of the board, shall be elected by the board at the annual meeting in May of the odd numbered years and shall hold office for a term of two years and until their successors are elected and qualified. Prior to said election the president of the board shall name a nominating committee of three members of the board which committee shall prepare a list of candidates for these offices for board consideration, which list shall be submitted to all members of the board at least one week in advance of the annual meeting in May of the odd numbered years.

The chancellor (ex-officio president of the board) shall be elected by the board whenever there is a vacancy, and shall hold office during the pleasure of the board.

3. *Vacancies*

In the event of a vacancy in any office of the board an election may be held for the unexpired term at any regular or special meeting of the board.

4. *Duties of the Chancellor As Ex-officio President of the Board*

The chancellor as ex-officio president of the board shall perform such duties as devolve upon him by law and as are usual to his office. He shall preside at all meetings of the board but a vice-president or a member may act as chairman of the board at his request. When the office of president of the board is vacant, or the president is absent, the first vice-president or, in his absence, the second vice-president, shall act as president pro tem.

5. *Vice-Presidents*

The first vice-president, or in his absence the second vice-president, shall in the absence of the president, perform all the duties of the president, and they shall at any time perform such duties as the board may direct.

6. *The Secretary and Assistant Secretary*

It shall be the duty of the secretary to record all the proceedings of the board and carefully preserve all its books and papers, and to perform such other duties as the board may direct. (Laws 1851, Chap. 3, Sec. 8.)

In the absence of the secretary, his duties shall be performed by the assistant secretary.

7. *Treasurer*

The treasurer shall keep a true and faithful account of all moneys received and paid out by him and shall give such bonds for the faithful performance of the duties of his office as the regents may require.

(Laws 1851, Chap. 3, Sec. 8.)

COMMITTEES OF THE BOARD

1. Standing Committees

There shall be the following standing committees :

- Executive and Finance
- Physical Plant
- Investments
- Budget

And such consulting committees with respect to units or activities of the University as the board may from time to time determine.

2. Manner of Appointment

The president shall appoint all committees except as otherwise ordered by the board. The standing committees of the board shall be appointed at the annual meeting in May of the odd numbered years and shall hold office for a term of two years. The president shall fill vacancies arising from any cause whatsoever. The president of the board shall be a member ex-officio with power to vote, of all committees.

3. Special Committees

Special committees may be appointed at the will of the board to consider special subjects.

4. Membership

The executive and finance committee shall be composed of five members of the board of regents. The first vice-president of the board shall be a member and act as chairman of the committee.

The investment committee shall be composed of three members of the board of regents.

The other standing, consulting, and special committees shall be of the number determined by the board.

5. Meetings

Meetings of the committees may be called by the chairman and shall be called by the chairman upon the request of two members of the committee or upon the request of the president of the board. Whenever a meeting of any committee of the board is duly called, and one or more members of the committee meet, any member of the board not a regular member of the committee, who is present, may sit with the committee, and be deemed a member with all the powers of a regular member.

6. Minutes of Proceedings

The secretary of the board shall be the secretary of all standing and special committees. He shall keep the minutes of the meetings and when directed by the board shall cause them to be printed in the same form as the minutes of the board of regents and distribute them and preserve them among the records of the University.

7. Duties

The duties of the several standing committees shall be those indicated below and all actions of these committees shall be reported to and be subject to approval of the board of regents except as otherwise directed by the board.

The executive and finance committee shall have general supervision of the business affairs of the University. It shall represent and act for the board during intervals between meetings.

The physical plant committee shall have general supervision over the location and construction of new buildings and over major additions and improvements to land and buildings.

The investment committee shall have general supervision over the investment of all funds in the custody of the University.

The budget committee shall have general supervision over the preparation of the annual operating budget of the University and of the biennial legislative budget.

AMENDMENT TO RULES

The rules may be amended by a majority vote of the whole board at any meeting, provided, however, that notice of any proposed change must be given in writing to the members of the board at least one week in advance of the meeting scheduled to consider such changes.

NATIONAL DEFENSE

The University is co-ordinating all of its resources for rendering assistance to the nation's preparedness program. To facilitate this work the president, in the spring of 1940, appointed a special Committee on University Resources in Relation to National Defense. The chairman is Dr. Harold S. Diehl, dean of the medical sciences, and the following are the other members: Dean Walter C. Coffey, Dean Malcolm M. Willey, Associate Dean T. Raymond McConnell, and Professor Charles A. Koepke. The committee is now surveying all departments of the University to ascertain the extent to which staff members are engaging in research that may have relation to defense activities. It seeks to co-ordinate defense activities and to prevent overlapping of activities and services.

RESIDENCE STATUS OF STUDENTS

The University of Minnesota, in conformity with general practice, imposes higher tuition fees upon nonresident students than upon residents of Minnesota. In some instances students have resorted to legal technicalities to establish a Minnesota residence in order to become eligible for the lower fees. Some students who were clearly nonresidents had been able to evade a regulation adopted by the Board of Regents on May 9, 1928, which included the following statement:

All students under the age of 21 shall be considered as domiciled where their parents or legal guardians are domiciled.

On July 14, 1939, the president was authorized by the Board of Regents to appoint a committee to investigate the several problems involved and recommend action designed to make more difficult the evasion of nonresident fees.

The committee, consisting of Professor Edward G. Jennings, Dean E. M. Freeman, and Mr. Rodney M. West, made an exhaustive study and brought in a comprehensive report. These recommendations have been used as the basis for the determination of residence since their approval by the Board of Regents on September 15, 1939:

1. No student shall be admitted to the University on a resident tuition basis, unless he has been a bona fide domiciliary of the state for at least a year prior to admission. This requirement shall not prejudice the right of a student admitted on a non-resident basis to be placed thereafter on a resident basis, provided he acquired a bona fide domicile of a year's duration within the state in the meantime. The fact alone of attendance at the University neither constitutes nor necessarily precludes the acquisition of such a domicile.

2. The responsibility of registering under proper residence is placed upon the student and it is the duty of each student at registration, if there be any possible question of his right to residence fees, under the rules of the Board of Regents, to raise the question with the Registrar. (This is the same as the rule now in force, adopted November 2, 1932).

3. For the purpose of determining, in cases that the Registrar shall consider at all doubtful, the right of a student to a resident tuition basis, a board is hereby created, to consist of the Registrar as a permanent ex-officio member, and four other members of the official staff of the University, to be appointed annually by the President with the power of reappointment. Three members of said board shall constitute a quorum to hold hearings, and decisions shall be made by majority vote of those present. The Registrar shall act as chairman, except as he may designate another member to act in his stead.

4. In its decisions of cases the board shall be guided by the following basic rules:

- a. For a parent's domicile to be in Minnesota, he must have other connections with the state than the mere fact of presence with his children while attending the University.
- b. The domicile of a minor follows
 - (1) That of the parents or surviving parent; or
 - (2) That of the parent to whom custody of the minor has been awarded by a divorce or other judicial decree; or
 - (3) That of the parent with whom the minor in fact makes his home, if there has been a separation without a judicial award of custody, unless, by the law of the state in which the parents were domiciled at the time of the separation, the domicile of the minor, although living with the mother, continues to follow that of the father; or
 - (4) That of an adoptive parent, where there has been a legal adoption, even though the natural parents or parent be living; or
 - (5) That of a "natural" guardian, such as a grandparent or other close relative with whom the minor in fact makes his home, where the parents are dead or have abandoned the minor.
- c. Where a general guardian was appointed by the state of the ward's domicile at the time of the appointment, the ward's domicile presumptively remains in that state. The appointment by a Minnesota court of a resident guardian of a minor not domiciled in this state at the time of the appointment has no effect upon the domicile of the ward.
- d. A child emancipated by the law of his domicile has the same power as an adult to acquire another domicile. Marriage constitutes emancipation of minors, both male and female. The domicile of a minor female becomes that of her husband and so remains while she continues to live with him.
- e. For either an adult or an emancipated minor to acquire a domicile in this state he must have permanently left his parental home, have acquired other interests in this state than attendance at the University, of a relatively permanent character, and have no present definite intent of removing therefrom as of a time certain in the relatively near future. Facts that will be considered evidentiary of domicile, although not conclusively so, either singly or in combination, are:
 - (1) That the student is self-supporting, especially if by employment of a type offering a future in this state extending beyond his University course
 - (2) That he has acquired a family of his own
 - (3) That he has purchased, or leased on a year-round basis, what may be considered as a "home" establishment
 - (4) The act of voting or registration for voting, prior to a dispute as to resident status having arisen
- f. The following facts will not be accepted as in any sense evidentiary of domicile:
 - (1) A statement of intention to acquire a domicile in this state, or the act of voting or registration for voting, made or done for the first time after dispute has arisen concerning the resident status of the student
 - (2) Employment by the University as a fellow, scholar, assistant, or in any position normally filled by students
- g. An out-of-state student enrolled for a full program or substantially a full program will be considered to be in Minnesota primarily for the purpose of attending the University, and will be presumed not to be here domiciled. Continued residence in Minnesota during vacation periods or occasional periods of interruption to the course of study does not of itself overcome the presumption.

- h. In all cases where a student, who has come from another state, seeks to be placed upon a resident tuition basis, the burden shall be upon him to establish convincing proof of facts showing the acquisition of a domicile in this state.

PURCHASE OF EXPERIMENTAL DOGS

During the second year of the biennium newspapers carried accounts of arrests in St. Paul of men charged with stealing dogs. The University became involved in this unfortunate situation because it was alleged that the "dognappers" were using the Medical School as the outlet for the stolen animals. News dispatches created the impression that hundreds of St. Paul dogs had been stolen and that all of them were sold to the University. Furthermore it was implied that the University had been lax in its procedures for the purchase of dogs.

Actually the University takes unusual precautions in securing the necessary dogs for experimental purposes. When animals are needed by any of the departments for use in the experimental work, the department communicates with the animal caretaker and informs him of its requirements. He, in turn, notifies the general storekeeper. The general storekeeper, through the purchasing agent, places an order for the desired number of dogs.

In earlier years, the University bought dogs from any individual who offered them for sale, subject to affidavit of ownership. In order to reduce the possibility of purchasing stolen dogs, the University, in 1936, restricted its purchases exclusively to five animal dealers, with whom it had been doing business for many years.

Prior to the incident in question, involving one of these dealers, no complaint or criticism had been brought to the University with respect to its method of purchasing dogs, and no complaint had cast any reflection on any of these dealers. The University had every reason to assume that its procedures were satisfactory.

When an order for the dogs is placed, the dealer with whom contact has been made, delivers the animals to the animal caretaker, and he issues a receipt for them. The dealer then takes this receipt to the general storekeeper who prepares a voucher for payment by the bursar. The dealer takes the voucher to the Administration Building and receives his money from the bursar. The price paid is nominal and unvarying. Any stolen well-bred dog would command a price many times higher than that paid by the University. As a further safeguard for dog owners, all dogs are held for a minimum of one week.

Following last year's incident, hundreds of people visited the animal quarters in Millard Hall. They looked at more than two hundred dogs. Yet only three dogs were identified. This was in sharp contrast with the implications spread widely by the press. The University regrets that any stolen animal should find its way to the animal quarters, and takes every known, practicable step to prevent such an occurrence.

More adequate protection to pet owners and the University could be given. In various cities it is the practice to turn over to universities or medical schools dogs from city pounds that are unclaimed and unlicensed, and that otherwise would be destroyed. In other places, there is public licensing and supervision of animal dealers. The University would welcome either of these measures.

HANDLING AND CONTROL OF UNIVERSITY PROPERTY

The size of the University and the extent of its property and equipment make necessary some definite procedures with respect to the handling and control of such property and equipment. On September 9, 1938, the Board of Regents approved the following rules and regulations which represent, in general, a codification of the practices and the rules that had developed over many years:

I. CONTROL OF UNIVERSITY PROPERTY

A. In General

1. All University property and equipment shall be considered as of institutional ownership.
2. The Inventory Supervisor shall be considered the general custodian of all University property.

II. CARE AND MAINTENANCE OF EQUIPMENT

1. Department heads will be responsible for the proper use and protection of equipment and supplies in their departments.
2. Equipment shall at all times be kept in a good state of repair. Furniture and classroom equipment needing repair should be sent to the Furniture Repair Shop in the General Storehouse and Shops building and scientific apparatus to the Scientific Apparatus Repair Shop in the Physics building.

III. RESPONSIBILITIES OF THOSE USING UNIVERSITY EQUIPMENT

1. Each person in possession of University property will be held responsible for its return to the equipment attendant in as good condition as when issued, except for wear or tear incident to its proper use.
2. Equipment will be issued with the understanding that it will be returned promptly after the project has been completed in order to permit its maximum use.
3. Charges against students for lost or damaged equipment will be reported to the Registrar for deduction from their deposit fees.
4. Charges against faculty and employees for loss or damage to equipment shall be paid by payroll deductions if necessary.
5. In the event that such charges are necessary, the equipment attendant shall forward a report of loss or damage to the Inventory Supervisor in the office of the Comptroller.
6. Final salary checks of faculty and employees leaving the employ of the University shall be withheld until all borrowed equipment has been returned in good order.

IV. OBSOLETE AND WORN-OUT EQUIPMENT

1. Equipment worn out, destroyed, or damaged beyond repair by fire, or other similar causes, should be reported to the Inventory Supervisor for condemnation and disposal, giving the inventory number, reason for disposition, and authority to remove the item from the inventory.

V. EQUIPMENT NOT IN USE

1. Departments having serviceable equipment which is no longer needed in the department should notify the Inventory Supervisor that equipment is available for transfer.

VI. TRANSFER OF EQUIPMENT

- A. No equipment may be transferred from one department to another or between buildings without an order from the Inventory Supervisor.
1. The interchange and transfer of equipment from one department to another shall be handled in the following manner:
 - a. Departments requiring temporary use of equipment shall apply to the Inventory Supervisor.
 - b. The Inventory Supervisor shall ascertain from the official inventory the location of the equipment desired and negotiate with the department having the equipment for the transfer.
 - c. If the department is not using the equipment, the Inventory Supervisor shall have authority to make the transfer.
 - d. Should a department head feel that equipment selected for transfer may be injured, he may refer the request to the Comptroller for decision.

VII. THEFTS

1. Thefts and losses should be reported to the Inventory Supervisor as soon as discovered. Steps will then be taken by the proper officials to recover the lost articles.

VIII. LOAN OF EQUIPMENT

- A. Inter-departmental Loans
 1. Departments desiring the loan of equipment from another department should apply to the Inventory Supervisor, unless the loan has already been negotiated between the departments.
 2. In the event that the loan is made, the department making the loan should notify the Inventory Supervisor of the transaction, giving the inventory number, borrower's name, and duration of the loan period.
- B. Loans to Other Institutions

On occasions requests are received from members of the staffs of other educational institutions for the loan of University equipment. While it is desirable that the University co-operate with other educational institutions, it is essential that no University equipment be loaned without proper authority and without proper record of the loan. Such loans, therefore, may be made in the manner and under the conditions prescribed below:

1. Request for the loan of the equipment should be officially made by the proper business officer of the institution and such request should include agreements as follows:
 - a. To meet transportation charges both ways.
 - b. To assume responsibility for loss and damage from any cause and in the case of equipment valued at \$100 or more a floater policy of insurance covering all risks.
 - c. To return the equipment within one year from the date of the loan.
2. The department receiving such a request should refer the request to the Inventory Supervisor, recommending that the loan be made and indicating that the loan may be made without interfering with the educational activities of the University.
3. The Inventory Supervisor should take the following steps:
 - a. Indicate inventory number, date of acquisition, and inventory value on the request.
 - b. Secure the approval of the Comptroller for the loan.
 - c. Notify the department that the equipment may be loaned and authorize the General Storehouse to make the shipment.
 - d. Assume responsibility for floater insurance, if necessary, and for the prompt return of equipment at the expiration of the loan period.
 - e. Assume responsibility for billing the institution for any loss or damage if uninsured.

IX. SALES AND TRADE-INS

- A. Sale of Serviceable Equipment
1. No equipment may be sold or otherwise disposed of without the approval of the Comptroller.
 - a. Departments having equipment for sale should notify the Inventory Supervisor, giving the inventory number, reason for disposition and recommended sale price.
 - b. In the event that some other department has use for the equipment, the Inventory Supervisor shall have authority to make the transfer without credit to the department relinquishing the equipment (except for Service Enterprises and equipment purchased from special restricted funds).
 - c. If in the opinion of the Inventory Supervisor the equipment is of no further use to the University he shall secure the approval of the Comptroller to make the sale in the proper manner.
- B. Trade-ins and Exchanges
1. Departments negotiating the trade-in of used equipment on new purchases should notify the Inventory Supervisor, giving the inventory number and description of equipment to be traded in. No equipment should be replaced for trade-in purposes until a proper record thereof has been furnished to the Inventory Supervisor. Corresponding identifying information should appear on any requisitions involving a trade-in of equipment.

X. PURCHASE OF SCIENTIFIC EQUIPMENT

1. The President of the University shall appoint an Advisory Committee on the Purchase of Scientific Equipment. This committee shall consist of six persons, to be appointed each year, and none shall be able to succeed himself. The President may refer to this committee all special requests for the purchase of scientific equipment that is in general use by more than one department, as for example, microscopes, lanterns, moving picture machines, and the like.

HONORARY DEGREES

The University of Minnesota has held firmly to a policy of awarding honorary degrees only to individuals whose conspicuous service has been closely and directly related to the state of Minnesota or to the University itself. Prior to the June commencement in 1940 only twelve honorary degrees had been conferred in all the years of the University's life. In June, 1940, four additional degrees were conferred, which were the only ones of this biennium: Fred B. Snyder, attorney, member of the Board of Regents since 1912, and its chairman; Charles P. Berkey, professor of geology, Columbia University; Dr. Thomas S. Roberts, physician, director of the Minnesota Museum of Natural History; Dr. Louis B. Wilson, director-emeritus of the Mayo Foundation for Medical Education and Research. The presentations and the citations were as follows:

CHARLES PETER BERKEY, presented by Professor Frank F. Grout.

Professor Grout:

MR. PRESIDENT: on recommendation of the faculties of the University and by action of the Regents I have the honor to present for the degree, doctor of science, *honoris causa*, Charles Peter Berkey.

Mr. Berkey, whose career began at the University of Minnesota as student and instructor in the Department of Geology, has for many years been a distinguished member of the faculty of Columbia University. His penetrating researches in the field of petrology, his gifted teaching, his unselfish assumption of administrative duties in the university and in national and international societies have marked him

a great educator and scientist. His advice and counsel in geological matters have been sought in preparation for vast public undertakings. He has served as consulting geologist for the cities of New York, Boston, Hartford, Los Angeles, and Pasadena in connection with water supply, bridge, and tunnel construction; for the War Department on the Bonneville Dam project; for the Tennessee Valley Authority on the various dams and reservoirs in that area; and for the Federal Government on a series of projects including among many others the Madden Dam, Boulder Dam, Coulee Dam, the Central Valley project in California. He was chief geologist on the Central Asiatic expeditions of the American Museum of Natural History.

President Ford:

Charles Peter Berkey, distinguished geologist, whose researches have illuminated all branches of science; inspiring teacher, whose high ideals of professional and personal integrity have been an inspiration to many students and have brought honor to your profession; wise counselor in vast public and private undertakings; the Regents of the University of Minnesota, on recommendation of the faculties, confer upon you the degree of doctor of science, *honoris causa*, with all the rights and privileges which pertain to that degree.

THOMAS SADLER ROBERTS, presented by Professor Dwight E. Minnich.

Professor Minnich:

MR. PRESIDENT: on recommendation of the faculties of the University and by action of the Regents, I have the honor to present for the degree of doctor of science, *honoris causa*, Thomas Sadler Roberts, director of the Minnesota Museum of Natural History at the University of Minnesota.

After a distinguished career in the medical profession of the state, at a time of life when most men begin to think of retirement, Dr. Roberts came to the University of Minnesota to continue what had always been a strong avocational interest, the study of Minnesota's animal life with special reference to birds. In the twenty-five years since he came to the University, through his work and enthusiasm he has literally created the present museum with its superb exhibits, its excellent study collections, and its magnificent new building. In addition he has published a monumental work, the *Birds of Minnesota*, for which in 1938 the American Ornithological Union awarded him the Brewster Medal.

President Ford:

Thomas Sadler Roberts, distinguished ornithologist, whose research on the birds of Minnesota has won national acclaim; ardent naturalist, whose enthusiasm has inspired the younger generation of this state; dreamer of great dreams, whose vision of a museum of natural history at this University has by persistent effort been brought to a magnificent realization; because of your signal contribution to biological science, the Regents of the University of Minnesota, on recommendation of the faculties, confer upon you the degree of doctor of science, *honoris causa*, with all the rights and privileges which pertain to that degree.

LOUIS BLANCHARD WILSON, presented by Dean Harold S. Diehl.

Dean Diehl:

MR. PRESIDENT: upon recommendation of the faculties of the University and by action of the Regents, I have the honor to present for the degree of doctor of science, *honoris causa*, Louis Blanchard Wilson, director emeritus of the Mayo Foundation for Medical Education and Research.

An alumnus of the Medical School of this University, a gifted teacher, and a distinguished scientist, Dr. Wilson served this institution for thirty years as a professor of pathology and for almost twenty years as director of the Mayo Foundation Division of the Graduate School. In this latter capacity, Dr. Wilson not only organized and directed the most extensive program of graduate medical education existing anywhere in the world, but he played a leading role in the development of graduate medical training throughout the country at large, serving as president of the Association of American Medical Colleges, as chairman of the

Advisory Council on Medical Specialties, as a member of the National Board of Medical Examiners, and as a member of the Council on Medical Education and Hospitals of the American Medical Association.

It is a privilege, Mr. President, to present to you for an honorary degree, this distinguished alumnus, faculty member, scholar, scientist, teacher, administrator, and medical educator, whose many avocations as well as professional achievements have reflected credit not only upon himself, but also upon this University and this state.

President Ford:

Louis Blanchard Wilson, a graduate of the University of Minnesota who has preserved and developed in yourself the best it had to offer; a teacher and scientist who as a member of the staff of the Medical School, as an associate of the Doctors Mayo for thirty-five years, and as director of the foundation that bears their name, has transmitted to other scientists and physicians your own enthusiasm and inspiration; a friend and colleague whose open mind, unswerving loyalty, and gracious, winning personality have gained for you the admiration and honor of all with whom you have had association; because of what you are and what you have done, the Regents of the University of Minnesota, on recommendation of the faculties, confer upon you the degree of doctor of science, *honoris causa*, with all the rights and privileges which pertain to that degree.

FRED BEAL SNYDER, presented by Dean Everett Fraser.

Dean Fraser:

MR. PRESIDENT: I have the honor to present Fred Beal Snyder for the degree of doctor of laws. Fifty-nine years ago he received the degree of bachelor of arts from the hand of the first president of the University. He was elected to Phi Beta Kappa when our chapter was organized. He became a lawyer, and has practiced his profession for fifty-eight years. He has served his city as member and president of its council; his state as representative and senator; but our University has been the chief object of his devotion and service. As regent for twenty-eight years, and presiding officer of its governing board for twenty-five years, by his wise counsel and unselfish labor he has promoted the interests of the University, and the educational welfare of the youth of the state. In recognition of his devoted service through all these years, the faculties of the University recommend that you confer upon this loyal son, Fred Beal Snyder, while he is still young, the degree of doctor of laws, *honoris causa*.

President Ford:

Fred Beal Snyder, as lawyer, legislator, and civic leader, you have served well your city and your state. You have made this University your first interest. As one of its early students you knew its beginnings. As regent and presiding officer of its governing board, your guidance and counsel have been important factors in its development. They have aided in the selection of three of its presidents, and have been constantly at the service of each of them. Upon you, Fred Beal Snyder, loyal son, counselor and friend of many years, while still in the course of your unique service, upon the recommendation of the faculties, and by authority of the Regents, the University of Minnesota confers the degree of doctor of laws, *honoris causa*, with all the rights and privileges which pertain to that degree.

MERGER OF BOOKSTORES

The Professional Colleges Bookstore was the name adopted for the undertaking which resulted from the merger of two campus bookstores, the Engineers and the School of Business Administration bookstores. Having been under consideration for several months, the actual merger was completed on October 22, 1938, after a decision had been reached that it would be to the best interests of all students to combine the facilities of the two stores.

The new store has continued along the same lines as its predecessors, as a student co-operative enterprise. All patrons, members, and non-members alike, pay regular retail prices for their purchases but members receive dividends from the earnings. Under terms of the merger, members of both old organizations became members of the new, and members of both boards of directors became the new governing board.

PATENTS

As a result of investigations carried on by staff members, patentable discoveries are made from time to time. The University has encouraged the patenting of these discoveries, under an arrangement that involves assignment of the patent to the University and a prearranged royalty distribution. On November 5, 1938, the Regents approved the following recommendation:

1. That the Regents authorize the establishment of a committee on University patents to consist of the Comptroller of the University and two members of the staff to be appointed by the President
2. That the Committee on University Patents so established be charged with the following responsibilities:
 - a. To receive and consider applications from staff members desiring to secure patents at University expense and with University participation in profits and control
 - b. To appoint sub-committees of the staff to advise on technical phases of patent applications under consideration
 - c. To consider the business aspects of such applications
 - d. To authorize the patent counsel of the University to make formal applications for patents
 - e. To consider and recommend to the Board of Regents agreements covering licensing under patents secured
 - f. To consider and recommend to the Board of Regents agreements with staff members relative to the assignment of patents by the staff members to the University

During the biennium the following actions by the Regents relate directly to patents:

November 23, 1938, accepted the assignment of invention in the Cornell and Montonna Canadian Patent Application No. 45664 for "Alpha-Cellulose Products and Process for Making the Same."

November 30, 1938, approved the agreement between the Regents and Merck and Company, Inc., covering the Lee I. Smith vitamin "E" patents.

March 22, 1939, accepted the assignment from Professors R. L. Dowdell and R. G. Green of a patent application covering new and useful improvements in bird shot, and of a patent covering new and useful improvements in ball making machines.

September 15, 1939, accepted assignment from Assistant Professor Alan J. Bailey of a patent covering certain improvements in alcoholic treatment of ligneous cellulosic material.

September 15, 1939, approved extension until July 21, 1941, of agreement with Innis, Speiden and Company under the Chapman patent, covering the manufacture of a fumigant.

November 25, 1939, accepted assignment from Professor Lee I. Smith of thirteen different patents resulting from research work carried on in the laboratories of the University of Minnesota.

January 12, 1940, accepted assignment of two additional patents from Professor Lee I. Smith.

February 9, 1940, approved a supplemental agreement with Merck and Company, Inc., to include Professor Lee I. Smith's vitamin "K" patents.

STATE TREE ACT

The 1939 Legislature approved a state tree act and directed the Agricultural Extension Division of the University to procure forestry planting stock and distribute this to farmers at cost, plus transportation and administrative charges. The purpose of the act was to provide trees of better quality and at better prices to farmers of the state. All attempts to secure trees which could be sold to farmers at significantly lower prices than nurseries now quote in retail price lists were unsuccessful. There seemed to be no probability of success in the future. Consequently on March 8, 1940, the Board of Regents approved the following recommendations:

1. That no further efforts be made to administer this Act, and that the funds appropriated by the Legislature be allowed to revert.
2. That a report of the efforts already made to administer this Act be made to the Legislature.

SETTLEMENT OF FEDERAL TAX CLAIM INVOLVING
ATHLETIC ADMISSIONS

On June 21, 1932, a federal tax became effective on various types of amusements. The University of Minnesota, with other publicly supported educational institutions, took the position that this federal amusement tax did not apply in connection with athletic contests of these institutions, since these were a part of the educational program, and accordingly exempt. However, since the matter was in dispute, the University collected the tax from the outset and held the moneys, pending a decision in the matter. In December, 1936, the federal government began taking steps to collect the amusement tax, together with penalties and interest.

A decision by the United States Supreme Court in an amusement tax case involving the University of Georgia, May 23, 1938, led the Regents of the University of Minnesota on October 1, 1938, to authorize the comptroller to confer with the tax authorities, and settle the matter by payment of the principal amount, but without interest and penalties. The collector of internal revenue refused the University's payment, and called for the additional interest and penalty money. The Regents then approved a conference on the matter with the commissioner of internal revenue, in Washington, and named Comptroller W. T. Middlebrook and Director Frank McCormick, together with a representative from the office of the attorney general, as the conference committee to represent them. On July 14, 1939, the Regents were advised that the special committee had met with a representative of the General Counsel of the Bureau of Internal Revenue and two representatives of the attorney general of the United States, and that the matter was closed by the acceptance of the principal amount of the tax (\$219,695.71), without penalty or interest.

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INSTRUCTION, FEES, AND THE EDUCATIONAL PROGRAM

THE GENERAL COLLEGE

In its eight years of existence the General College has justified itself and is to be continued as a unit of the University. This was decided by the Board of Regents on June 15, 1940, upon the recommendation of the president.

The president had been faced with the problem of the status and future of the unit because of the resignations of the director and assistant director which were to take effect at the close of the academic year, 1939-40. Its continuance among the academic organizations of the University was the result of several considerations. First, the General College was a means of caring for between 800 and 900 students as well as serving as an experimental unit in studying the problems of the thousands of other students not on this campus but having similar abilities and interests.

Further, new problems will arise for this type of student as the standards of the University in various other units make completion of a four-year program beyond such a student's interest or ability to compass. There is also a strong probability that consideration will be given on a state-wide basis to some form of post-high-school training adapted to types of students similar to those now enrolled in the General College. Even should such training be localized or regionalized, there would still remain the obligation of the University to take the leadership in the experimental program that will have to be developed.

Although the General College continues and the experimental attitude has been preserved, provision was made so that information and understanding of the unit and of its possibilities should be widened on the University campus. This will be accomplished through a new nine-member committee, the General College Advisory Committee, of which Associate Dean T. R. McConnell of the College of Science, Literature, and the Arts is directing chairman. The committee, which includes one member of the General College staff, has the responsibility of formulating the operating policies of the General College and carrying forward the program of research. Dr. Horace T. Morse, formerly assistant to the dean of the Graduate School, was made assistant director of General College. He is in charge of actual operations and the execution of programs under the direction of the directing chairman and the General College Advisory Committee, of which he also serves as recording secretary.

The other six appointed members of the General College Advisory Committee are: Dean E. M. Freeman, Dean J. T. Tate, Professor J. W. Buchta, Professor C. A. Koepke, Professor H. J. Smith, and Professor R. S. Vaile.

NAVAL R.O.T.C.

In the spring of 1939, the United States Navy Department concluded with the university administration an agreement pending since April 17, 1937, for the establishment of a Naval Reserve Officers' Training

Corps. An initial class of slightly over fifty freshmen was enrolled in the 1939 fall quarter. With a similar group of freshmen entering each year, the full enrolment in the corps will be two hundred.

Plans for the naval unit are similar to those for the existing military unit. Navigation and other basic courses are given by naval officers assigned to the University. Uniforms are supplied by the Navy Department. Students in the corps take at least one summer cruise on a naval ship.

Minnesota's Naval R.O.T.C. was one of two established by the Navy Department in 1939 and brought to a total of nine the number of such units then in existence. The naval unit is housed in the Armory where remodeling provided space for office and other quarters, and for additional classrooms.

An account of the unit's first year of operation appears as a special departmental report, pages 436-37 of this volume.

CAA FLIGHT TRAINING

In the spring of 1939, the University was one of six schools selected to co-operate with the Civil Aeronautics Authority in an experimental flight training program. Under the program, twenty University of Minnesota students were trained. With the satisfactory completion of the experimental period, the training was continued and enlarged in the fall of 1939 to provide for fifty students, to be trained during 1939-40. Each student received ground and flight training. Under the agreement with the Civil Aeronautics Authority each student paid a \$40 fee to cover the cost of his ground course and to provide for essential insurance. For each student participating, the federal government provided an additional \$20, as well as the cost of from 40 to 50 hours of flight training for each student. The ground instruction is provided by the Department of Aeronautical Engineering under the General Extension Division of the University; the flight training was offered by qualified flight instructors chosen directly by, and responsible to, the Civil Aeronautics Authority, with the approval of the university authorities.

In the spring of 1940, an experimental advanced training program was instituted to provide further and more rigorous ground and flight training for students who had completed the elementary course. Under an agreement approved by the Board of Regents March 8, 1940, the University was allotted a quota of six students for this experimental advanced training. On June 15, 1940, approval of the Regents was given to increase this quota from six to eleven students.

Student applicants for flight training who are minors must have parental permission before final acceptance. In addition, each student signs an agreement to enter the army air service if called upon. Under federal law the training program is open to women, up to a maximum number of 10 per cent of the total quota.

The University has gladly co-operated in this part of the program of national defense. The Department of Aeronautical Engineering since its establishment in 1929 has developed into one of the outstanding departments in the country. Its selection, first as one of the trial centers and later as a regular unit in the CAA program, is recognition of its leadership.

PSYCHIATRIC CLINIC FOR CHILDREN

The Psychiatric Clinic for Children at the University opened in October, 1938, to supplement the newly developed program of the Psychiatric Department with its fifty-bed psychopathic hospital and increased facilities for out-patient service, teaching, and research.

In recent years the number of mentally ill who must be cared for at public expense has been steadily increasing, and there has been a gradual growth of anxiety as to what may be done to prevent this never ending stream. Most of the work in the past has been of a remedial nature, and with adults, although the logical place for prevention to begin is in the early years of life. It is believed that many cases of mental illness in adult life could have been prevented through proper psychiatric adjustment in childhood.

The program of the University's Psychiatric Clinic for Children has three major aims: (1) to integrate more closely psychiatric principles into the management of physically ill children, (2) to define more clearly the boundaries in the field of psychiatry, and (3) to offer the community a service facility, and the Psychiatric Clinic for Children a source of study material.

It was through the generosity of the Board of the Stevens Avenue Home of Minneapolis, and the Commonwealth Fund of New York that the establishment of this clinic became possible. The clinic began with a small staff. This makes it impossible to accept all applicants, nor can it possibly care adequately for all the service needs of the community. Yet, through careful selection of cases of the type where the greatest good can be accomplished, the clinic can demonstrate its value in teaching and research and also make significant contributions to the important and as yet comparatively unexplored field of mental illness.

REGISTER OF PH.D. DEGREES

A bulletin listing all of the Ph.D. degrees which had been conferred by the University of Minnesota, was issued on May 22, 1939. This was the second edition of a directory which first appeared in 1932. The period covered was the fifty years from 1888, when the first Ph.D. degree was given, through June, 1938. The record discloses that during that time 1,121 degrees were conferred on 1,119 different individuals. Of the Bachelor's degrees leading up to these 1,121 Ph.D. degrees, 453 had been received in the state of Minnesota, 556 in other states including the District of Columbia, and 112 in foreign countries. All states were represented except Delaware, Wyoming, and Nevada. The distribution of the Ph.D. degrees by departments of study were as follows: agriculture, 250; biological science, 100; language and literature, 63; medicine, 161; philosophy, psychology, education, and child welfare, 148; physical sciences and mathematics, 270; and social sciences, 129.

The *Register* contains a grouping by subjects, in which the degrees conferred are listed chronologically. For each individual the information includes the dates and institutions from which previous degrees were received, the majors and thesis topic, the major adviser, the positions held, honors received, and present address. Finally there is in-

cluded an alphabetical list of all of the individuals on whom degrees have been conferred.

The *Register* presents an impressive picture of the contributions which have been made by these students under the inspiration and scholarly guidance of the members of the graduate faculty. The achievements of these graduates, upon whom the University's highest earned degree was conferred, have not only advanced the world's store of general knowledge but have also made invaluable and direct contributions to the state's economy.

ACTIONS AFFECTING THE SUMMER SESSION

During the past biennium the Board of Regents took action on three matters relating to the Summer Session. On November 5, 1938, a regulation was passed which permits Summer Session students who cancel their registration without class attendance to receive a 100 per cent refund of the fees paid. For students who have attended classes prior to cancellation, the following table of refunds applies:

Length of term	80 per cent refund for attendance	No refund for attendance of more than
6 weeks	1 day to 1 week	1 week
5 weeks	1 day to 5 days	5 days
4 weeks	1 day to 4 days	4 days
3 weeks	1 day to 3 days	3 days
2 weeks	1 day to 2 days	2 days
1 week	1 day	1 day

A second action related to the salaries paid teaching and research assistants, who during the summer, and for the summer only, were elevated to the duties of an instructorship. In the past these assistants had been subject to the same basis of salary calculation as applies to other Summer Session staff members. They received one eighth of an assistant's full-time salary of \$1,200, or \$150 for the six weeks of the Summer Session. As a consequence, departments experienced difficulty in inducing competent teaching or research assistants to accept summer employment. Improvement in the situation is expected as a result of the following action taken by the Board of Regents on January 12, 1940:

The salaries of both teaching and research assistants in the Summer Session shall be \$175 for full-time service for either term of the Summer Session except that in special cases, where departmental circumstances require a higher rate, \$200 may be paid to each teaching assistant or to any instructor whose annual salary is less than \$1600, providing the teaching assistant or instructor in question at the time of his appointment has completed the preliminary examination and all other requirements except thesis for the Ph.D. degree in the Graduate School of the University of Minnesota or other equally accredited graduate school, or has acquired in those fields in which the Ph.D. is not customarily given (e.g. the arts) an equivalent status.

In the third action which was approved by the Board of Regents on November 25, 1939, an increase was made in Summer Session fees. The new schedule provides for an increase of \$4 per term in the regular tuition fees, and an added \$1 per term in the incidental fee.

The first increase had become necessary because of the disproportionate increase in Summer Session Graduate School enrolments. During the past fifteen years, with no advance in tuition, the total Summer

Session enrolment increased 95 per cent, while Summer Session graduate students increased 328 per cent. As graduate enrolments grow, more instructors from the upper ranks of the faculty are required. This fact had increased Summer Session instructional costs to the point where it was no longer possible to operate on a sound basis within the limits of the budget.

The increase in the incidental fee was to place the fee covering the use of the student Union on the same basis during the Summer Session as during the regular academic year.

TUITION EXEMPTION FOR BLIND STUDENTS

The Board of Regents, in 1927, voted to authorize the admission, without tuition, of blind students who were otherwise qualified to receive instruction. On November 25, 1939, the earlier action was amended to limit this exemption to Minnesota residents:

Voted to authorize the admission without tuition of blind students who are residents of the state of Minnesota to the University for instruction in courses which they are qualified to receive. A blind person is defined as one who with the help of glasses or other resources has not sufficient ocular power for the ordinary affairs of life or in particular for the performance of tasks for which eyesight is essential.

CURRICULA AND DEGREES

During the biennium the Board of Regents took the following actions that relate to the curricula and degrees:

December 23, 1938, approved granting the degree, master of forestry. March 22, 1939, approved the reorganization of the Department of Scandinavian.

March 22, 1939, approved a limitation of enrolment in courses in medical technology:

The number of students accepted into the junior class each fall quarter will depend upon the number of places available in the laboratory for practical experience during the senior year. Application for admission to the junior class must be made by all students including those registered in the first two years at the University of Minnesota.

June 17, 1939, adopted a new regulation with reference to the granting of the certificate of public health. The new requirement limits the award of this certificate to

physicians, dentists, public health engineers, public health nurses, and other professional personnel in the field of public health who satisfactorily complete the prescribed postgraduate course in Public Health covering three University quarters and not less than thirty-six credits.

July 14, 1929, approved the degree of master of education in the fields of art education and music education, for the College of Education.

November 25, 1939, approved a certificate in public health nursing, to be retroactive to cover the cases of students qualified for the certificates at the end of the spring quarter of the academic year 1938-39.

May 10, 1940, approved discontinuance of the course in interior architecture and of the degree of bachelor of interior architecture. Lack of student demand for such a program and of financial support to provide the training now deemed essential in the field prompted this action.

June 15, 1940, authorized the establishment, beginning in the fall of 1940, of a training course for physical therapy technicians, and the granting of a certificate to students who satisfactorily complete the course. In the beginning the course is to cover twelve months, with graduation in nursing, in physical education, or in medical technology a prerequisite for admission. It is hoped that eventually there will be a four-year curriculum with the final year devoted to instruction and clinical practice in physical therapy and leading to a B.S. degree.

In addition to these actions by the Board, the Administrative Committee of the Senate on January 10, 1940 approved the following list of factors to be considered in granting requests for conferring degrees *in absentia*:

1. *Distance*.—If an individual who is not in residence and who lives a considerable distance from the University is a candidate for a degree, the factor of distance is taken into consideration.

2. *Interns*.—Interns in hospital service are excused from attendance at commencement.

3. *Conflict*.—Petitions are approved if a conflict between a special examination and commencement is involved as, for example, a state bar examination.

4. *Employment*.—Under certain circumstances employment at the time of commencement is regarded as a valid excuse for nonattendance. Such, for example, would be employment of a school teacher in his or her own school system or employment of a student who is in some measure self-supporting and who needs the degree for his or her next step at the University, and permanent employment which begins prior to the commencement time.

5. *Personal*.—There are occasional personal reasons as, for example, that of a woman whose husband died shortly before the commencement. Another example would be actual illness at the time of commencement, if properly certified by the Health Service or the attending physician.

6. *Religious*.—Religious reasons involving certain Catholic orders whose members are not customarily expected to participate in public ceremonies.

7. A student who completes all of the requirements for any degree at the close of the quarter but who for some reason has had his or her name omitted from the commencement program may be added to the official list and may receive the degree without attending commencement and without petition.

8. A candidate for a degree whose name has appeared on a commencement program and who has attended that commencement, may receive his or her diploma upon completion of the requirements for the degree without attendance at a subsequent commencement exercise.

9. A student who attends commencement and whose name is not on the program may not under any circumstances use that attendance as a substitute for attending the exercises where his or her degree is subsequently conferred.

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HOUSING THE UNIVERSITY

COFFMAN MEMORIAL UNION

The new and beautiful two-million dollar coeducational student union building, named Coffman Memorial Union in honor of Dr. Lotus Delta Coffman, fifth president of the University, was constructed during the biennium. Work on the structure began late in December, 1938, and was practically finished as the biennium closed. Subsequent to July 1, 1940, but prior to the actual printing of this report, the building was completed, furnished, and opened for the beginning of Freshman Week on September 23, 1940. (Also see *President's Report, 1936-38*, pages 72-74, for summary of steps taken to provide a new Union.)

Coffman Memorial Union was made possible through a grant from the federal Public Works Administration, which defrayed approximately 45 per cent of the cost of the structure. *No state funds or appropriations were used.* The balance of the cost came from gifts, athletic funds, earnings from various campus enterprises, and from past and anticipated future Union fees. (See also in this volume report of Buildings and Grounds, pages 189-95, for further details concerning Coffman Memorial Union.)

To secure the funds necessary to meet construction costs the Regents on November 25, 1939, approved a \$400,000 serial bond issue. This was sold at an interest rate of 1½ per cent.

The manager of Coffman Memorial Union is Ray Higgins, who had served as manager of the old Minnesota Union for several years. Two program counselors, Harvey Stenson, former assistant to the dean of student affairs, and Mary Hamilton, former research assistant in the General College, have been appointed to assist Union committees and student organizations in developing and planning the social and recreational program that will be centered in the building.

The opening of Coffman Memorial Union marks the culmination of a campaign which started in 1906, when a group of men students promoted the organization of a men's Union. As a result, the Regents, in 1914, made available to the group the old Chemistry Building. This served as the home of the Union until the opening of the new Coffman Memorial Union.

With the growth in enrolment and the increase in use of the Union by women students as well as by the men, the building became highly inadequate. President Coffman looked forward to the time when it might be possible to construct a building which would serve as a social and recreational center for the entire University—students, faculty, and alumni.

When it was learned that federal funds might be secured to defray part of the cost of the building, the Regents, on July 15, 1938, requested the Greater University Corporation to assume the responsibility of conducting a financial campaign to raise the additional funds. The corporation, an alumni organization formed originally to conduct the campaign for funds for Memorial Stadium and Northrop Memorial Auditorium, agreed to undertake this.

Traffic control.—One problem resulting from the construction of the new Union, and of Ada Comstock Hall, was pedestrian control on Washington Avenue. It was first proposed to install traffic signals at the intersection of the Mall and Washington Avenue. This plan proved to be impractical and on June 15, 1940, the Regents authorized the Physical Plant Committee to construct either overpasses or underpasses at the intersection. Following the close of the biennium, and prior to the opening of the fall quarter, two overhead foot bridges were erected to provide for the uninterrupted passage of pedestrians between the Union and that part of the campus lying north of Washington Avenue.

The functions of the Union.—In the Coffman Memorial Union, the University now has the modern facilities necessary to offset a previous inadequacy. Students, alumni, citizens of the state and the federal government have made this building a reality, grown from the dream of a great educator who felt so sincerely the University's need for a "student union as the center of its social life."

Also important is the fact that the new Union provides a unifying element for the university community. Most divisions of the University which comprise the university "family" are now separately larger than was the entire institution twenty years ago. The Union now stands—a symbol of university unification—where students, faculty members, and alumni of all departments may feel "at home" together. Most important of all, it is coeducational.

When the student body began to express its desire for a new Union, the four major tasks of such a building were named, as follows:

1. To provide social facilities.
2. To provide a cultural setting and program.
3. To provide for recreational and extracurricular activity.
4. To provide a dining center and other services.

With these student desires in mind, the Coffman Memorial Union was planned and built—the four major uses, in fact, became the basic pillars of construction.

However, the physical equipment in the building itself is not enough to insure a proper social environment. Realization of that goal depends upon the vitality and success of the "Union Program." The new Union has made possible expansion of the program. It may now be said that the observation made by President Coffman on April 6, 1936, has come true: "Some day the University of Minnesota will have a student union as the center of its social life."

It is especially appropriate that the main lounge of the building contains a portrait of President Coffman, and one of Mrs. Coffman. These were done by the eminent portrait artist, Mr. John C. Johansen, of New York, and financed by gifts from the Faculty Committee on Salary Contributions.

Floor plans, included here, give some conception of the size of the building, and the purposes it will serve. The following descriptions will supplement the drawings:

Ground floor.—The ballroom, which can accommodate 700 couples comfortably, is located on this floor. Adjacent are a foyer and adjustable wings to enlarge the dancing space. The ballroom easily may be turned into a movie theater, for there is a projection booth in the rear and a permanent screen on the stage bandstand.

Also on the stage are a Hammond electric organ and a Steinway grand piano, one of 16 in the entire building. To insure dancing comfort on the oak parquet floor, washed air ventilation operates constantly.

Near the ballroom are checking facilities and small lounges for both men and women.

On this floor alone are a variety of dining facilities. The cafeteria has table and booth space for 630 persons, making it possible to serve 2,000 during the noon serving period. In addition there is a grill for light lunches which may be served quickly. The central kitchen is naturally close at hand.

The post office, with 18,000 mail boxes, and the mailing department on the ground floor are accessible from the garage and the outside entrance.

The bookstore makes it possible to have all stationery supplies close at hand, and the barber and beauty shops are conveniently located.

On the floor directly below—in what is actually the subbasement—are 16 bowling alleys for recreational use and for intramural league competition. Near by is a commuters' lunchroom, with fountain service, for students who carry their own lunches.

First floor.—Just to the right of the main vestibule is a checkroom which offers free facilities. To the left of the main entrance is the director's office and information desk. Further on down the corridor is the office of the program consultants.

The first thing which strikes the eye on the first floor is the colorful, comfortable main lounge. From it, one may walk out onto the terrace, overlooking the winding Mississippi. The portraits of President and Mrs. Coffman hang in this lounge.

In the right wing of the Union is the balcony of the ballroom and a foyer which also has a commanding view of the dance floor. Just off the balcony is a restaurant, where meals are served in bright, cheery surroundings. The balcony provides a convenient place to meet companions.

Turning to the other wing of this floor, there is a game room, where 30 tables are available for checkers, chess, bridge, and other informal games, all designed for coeducational use. Only a step away is the fountain room, where light refreshments are served.

In the billiard room are 15 tables for pool, snooker, and billiards, in addition to two ping-pong tables. In the foyer at the front of the left wing is a stand for candy purchases and also rooms for various exhibits.

Second floor.—The long, majestic corridor with its beautiful furnishings is enhanced by the view one sees looking down on the main lounge.

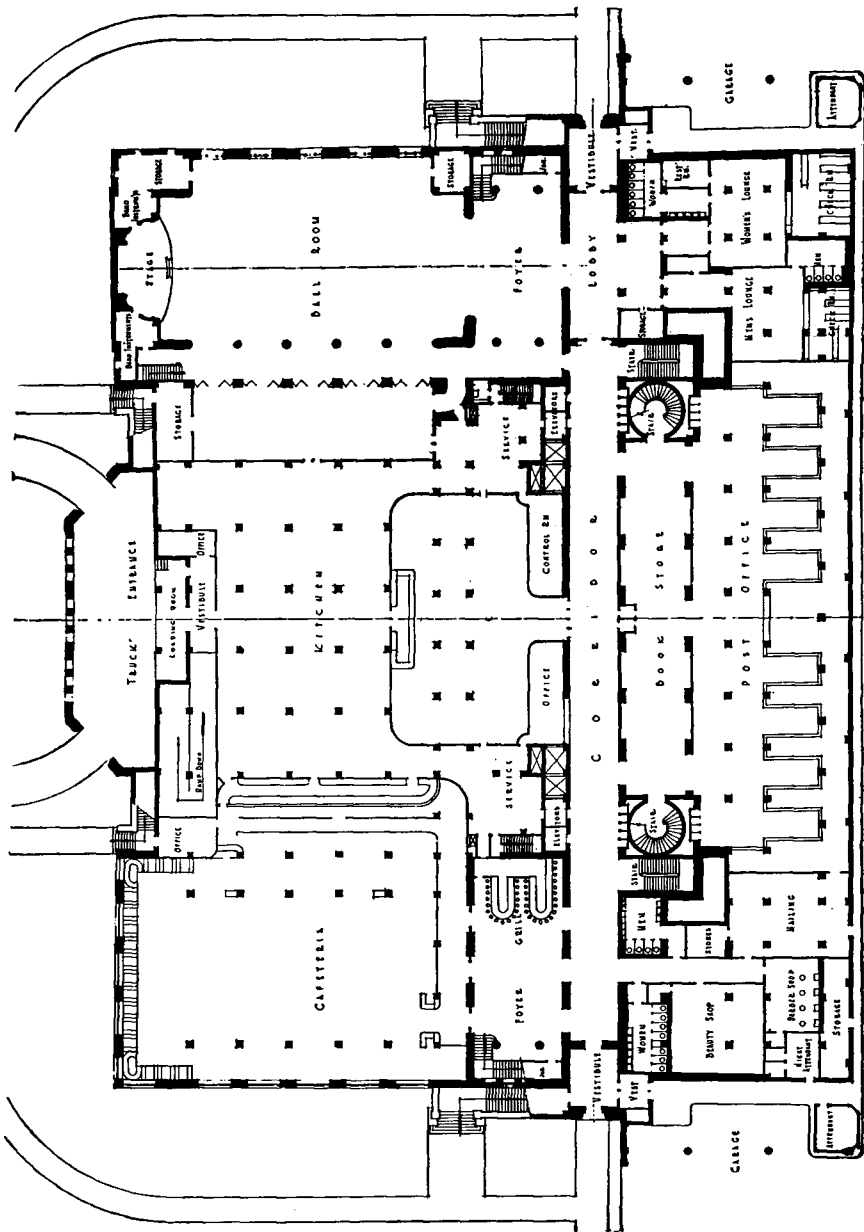
The alumni suite of rooms and offices gives the University a meeting place for its students of yesterday. Homecoming takes on a new significance, with the University better equipped to welcome back its alumni. The suite includes a reception room, office of the general alumni secretary, a filing room for alumni records, and offices of the editor of the *Alumni Weekly* and the alumnae club division.

Student offices on this floor make it one of the busiest in the Union. Active groups with established headquarters are the All-University Council, the Board of Publications, the Interraternity Council, the Minnesota Foundation, the YWCA and WSGA. The Union Board of Governors also has its permanent meeting room here, just to the left of the alumni quarters. In addition, two large meeting rooms, one on either side of the building, are available for the use of campus groups.

Each wing on the second floor is occupied by a lounge—one for men, the other for women. Both have windows looking out over the terrace and the river below. It is in these two lounges that color has been used especially effectively to provide an atmosphere conducive to relaxation.

One of the interesting features of the lounges as well as of many other rooms, is the fact it is possible to hear recordings and radio programs through use of a central loud speaker system. The system is operated from a control room on the ground floor.

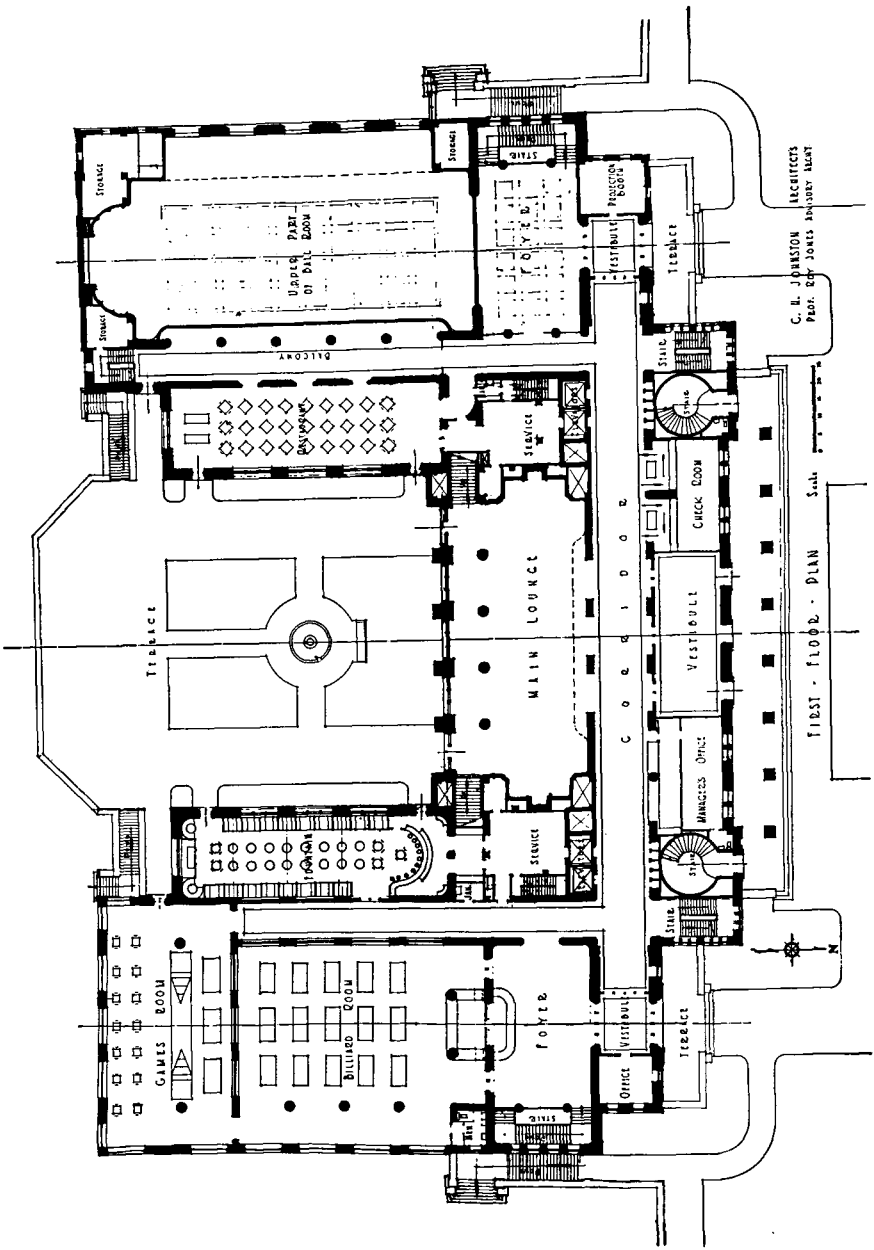
Third floor.—At one end of the corridor on this floor is the Fine Arts Room, one of the most distinctive in the Union. Designed especially for student musical and dramatic performances, the room has excellent acoustics, made possible by soundproof floor and ceiling. Another feature is the indirect overhead lighting, which makes the room ideal for special Union exhibits of photographs, pictures,



GROUND FLOOR PLAN

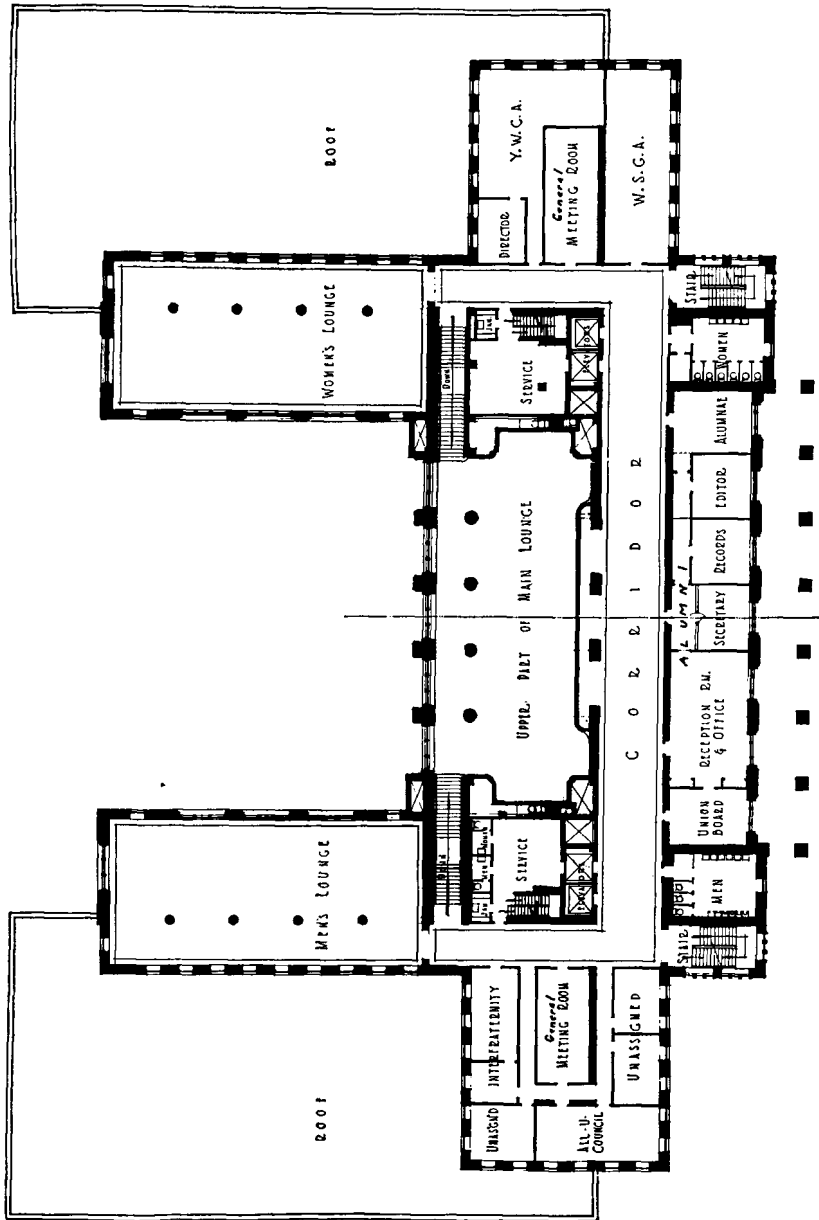
C. A. B. E. T.

Scale



C. H. JAMISON ARCHITECTS
 1000 10th Street, New York

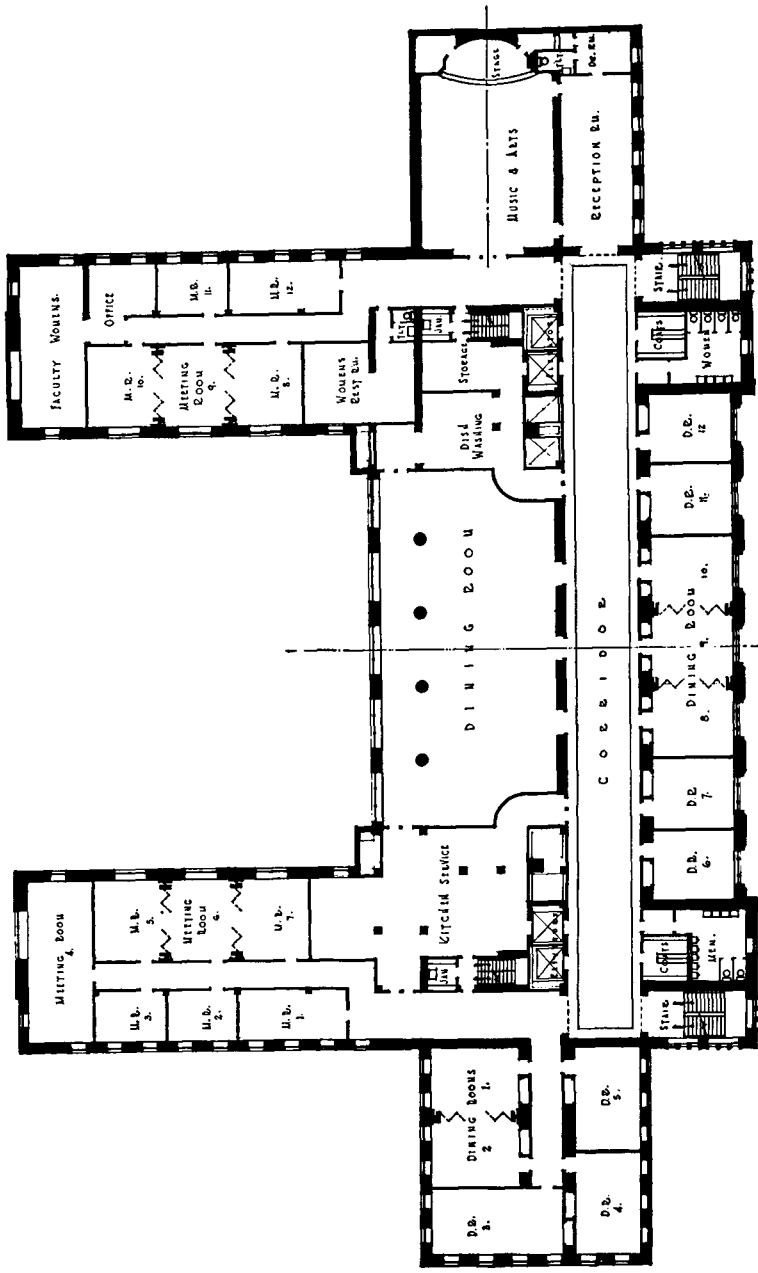
FIRST FLOOR PLAN



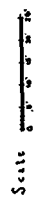
C. H. JOHNSTON ARCHITECTS
 PLOF BOY JONES ADVISORY AGENT.



SECOND FLOOR PLAN Scale



C. H. JOHNSTON ARCHITECTS
 PAOR. BOY JONES ADVISORY ACCT.



THIRD - FLOOR - PLAN

and paintings. As a room of dignity and charm, it contributes greatly to the University's expanding cultural life.

In the center of the third floor is a large private dining room, which may be used for banquets, small parties, and dances. It is possible to hold a dinner dance in the room, or the tables may be removed and the floor made available to small groups for dancing.

In addition to this large room, 12 other dining rooms of various sizes are located here.

Ten third floor rooms are available for student meetings. Also available for temporary use are several student activity offices. These may be reserved in the Union director's office.

At each end of the main corridor on this floor are checking facilities for those using the dining or meeting rooms. In the right wing is a comfortable women's room, equipped with cots. Also in this wing are the headquarters of the Faculty Women's Club.

Campus Club.—The three top floors of the building house the Campus Club, with membership drawn from the staff. The club paid its proportionate share of the costs of the building. The fourth floor contains a spacious corridor lounge and the dining rooms. Here also are the offices of the Campus Club, and the directors' room. At the west end there is a special lounge for the women members.

The fifth floor contains the main reading room of the club, and the game rooms; here also are two "quiet" rooms for resting.

The top floor has thirteen residence rooms occupied by unmarried staff members.

The interior decorations, including furniture designs, were done by Mr. Johns Hopkins of Chicago (see page 81).

NEW BUILDINGS

The 1939 session of the Legislature appropriated \$350,000 for one new structure, a Field Crops Building for the Farm campus. This will be ready for occupancy during 1940-41 and will house the Division of Agronomy and Plant Genetics, and the Division of Plant Pathology and Botany, which have not had suitable quarters in the past.

The Division of Agronomy and Plant Genetics is located at present in an old frame building, erected in 1886 as a residence and office for the dean of the department. Later it was converted into a boarding house for farm help. It provides at best only fair office space and it is entirely unsuitable for teaching. In addition, it constitutes a fire hazard. Crop classes are taught in four different buildings on the campus. Inadequate facilities are available for research. In fact, one of the laboratories now occupies the space formerly used as a hay mow.

The Plant Pathology Building is about the same age as the Agronomy Building, and was constructed originally as a gymnasium for the School of Agriculture. The structure is inadequately lighted and its proximity to the power house results in constant vibration which interferes seriously with research work. Valuable equipment is also in constant danger, since the building is not fireproof.

In addition to the Field Crops Building, five buildings were built during the biennium without the use of legislative appropriations. These were: Coffman Memorial Union, Students' Health Service (Farm campus), Thatcher Hall, William J. Murphy Hall, Minnesota Museum of Natural History, and Ada Comstock Hall.

Funds provided by the federal Public Works Administration constituted approximately 45 per cent of the cost of each of these buildings and were an important factor in making them possible. A gift from Mr. and Mrs. James F. Bell of \$150,000 covered the balance of the cost

of the Minnesota Museum of Natural History, and a bequest from the late William J. Murphy, of \$111,254.25, and \$25,000 from the Board of Publications provided for the balance of the cost of William J. Murphy Hall. Coffman Memorial Union, Thatcher Hall, Ada Comstock Hall, and the Students' Health Service on the Farm campus were constructed from funds granted by the Public Works Administration, from gifts made by faculty, students, alumni, and others, and from earnings of various campus enterprises.

Such a generous gift as the one of Mr. and Mrs. James F. Bell for the Minnesota Museum of Natural History (or that from the William J. Murphy bequest) indicates clearly the advantages that a benefaction can bring to the campus. Gifts of this type make it possible to construct buildings for which funds from the Legislature could not normally be expected, or which would come only after many years of waiting. Naturally it is to the most pressing and immediate needs that the Legislature turns first. But there are other needs of equal importance in the educational program, the fulfillment of which does seem to rest upon the generosity of friends. There is need at the moment, for example, for a structure to house the fine arts activities of the University—a building which should include a theater and an art gallery as well as office, classroom, laboratory, and studio space for all the related fine arts departments. Such a building would profoundly affect the development of fine arts work, broadly conceived, at the University, and would provide central facilities to co-ordinate the somewhat scattered activities of the present. Similarly, the University Press, through the publications of which the reputation of the University is spread and enhanced, could perform its functions to greater advantage if it were housed in quarters designed to meet its special needs, or if it had endowments for publication purposes.

DEDICATIONS OF BUILDINGS

Five new university buildings were dedicated during the biennium, three during the first year and two during the second. Vincent Hall, the new home of the School of Business Administration, was dedicated on October 14, 1938; the new St. Anthony Falls Hydraulics Laboratory, on November 17, 1938; Green Hall, the new home of the Division of Forestry and Lake States Forest Experiment Station, November 18, 1938; the new Health Service Building at University Farm, November 10, 1939; and Murphy Hall, the new home of the Department of Journalism, May 2, 1940.

Only two of the five buildings, Vincent Hall and Green Hall, were constructed with any funds from state appropriations. The other three were made possible through federal funds, private gifts, and earnings from university enterprises.

The dedication exercises of Vincent Hall began with a banquet of more than 400 alumni of the School of Business Administration and business men of the Twin Cities held in the ballroom of the Minnesota Union on October 13. The morning and afternoon of October 14 were devoted to conferences related to various areas of the field of business, and at noon a luncheon was held.

The formal dedication program of the \$300,000 structure was held in Northrop Memorial Auditorium on the evening of October 14. Dean Guy Stanton Ford, who five days later was elected to the presidency of the University, presided. The principal address, "Government and Business" was delivered by John W. Hanes, assistant secretary of the Treasury of the United States. Various aspects of the history and work of the school were touched upon in short talks by Regent Fred B. Snyder, Dean Russell A. Stevenson, and Dr. George E. Vincent—the third president of the University and the man for whom the building was named.

The School of Business Administration was established by action of the Board of Regents on June 18, 1919. There were 88 students enrolled during the first year of the school. Since that time there has been a steady growth from year to year and in 1937-38, 759 were enrolled, with an additional 218 students taking the combined Business and Engineering course. Until the completion of the new building the school had quarters in the former Mechanic Arts Building on the Knoll (Eddy Hall).

The dedication of the \$500,000 St. Anthony Falls Hydraulic Laboratory took place on the evening of November 17 and was held in the auditorium of the building. The dedicatory address was by Corrington Gill, assistant administrator of the Works Progress Administration—the federal agency which provided \$400,000 of the necessary funds. Dean S. C. Lind of the Institute of Technology spoke briefly on the problems involved in the construction of the laboratory and the importance of water to Minnesota. Upon presentation of the certificate of completion by R. C. Jacobson, acting state WPA administrator of Minnesota, Fred B. Snyder, chairman of the Board of Regents gave the response. Following the talks there was a tour of the laboratory, and a demonstration of its operation was given by Professor Lorenz G. Straub, consulting engineer for the project and head of the laboratory. The three days following the dedication, November 18, 19, and 20, were set aside for the inspection of the laboratory by the general public.

The dedication services of Green Hall occupied the entire day of November 18, 1938. The morning and afternoon sessions were presided over by Professor Henry Schmitz, chief of the Division of Forestry and were held in the auditorium of the new building. There was a noon luncheon and in the evening the annual Forestry Club and Alumni Dinner. Among the speakers on the day's program were: Fred B. Snyder, chairman of the Board of Regents; Professor H. H. Chapman, professor of forest management at Yale, and first graduate of the Minnesota Division of Forestry; President Guy Stanton Ford; F. A. Silcox, chief forester of the United States Forest Service; Ellery Foster, state forester; W. C. Coffey, dean and director of the Department of Agriculture; Dr. Clyde H. Bailey, vice-director of the Agricultural Experiment Station; Dr. E. M. Freeman, dean of the College of Agriculture, Forestry, and Home Economics; I. N. Tate, Weyerhaeuser Sales Company; and C. F. Forsling, assistant chief, branch of research, United States Forest Service.

The new \$250,000 building for the Division of Forestry and Lake States Forest Experiment Station was named in honor of the late Pro-

fessor Samuel B. Green, first head of the Division of Forestry at the University of Minnesota. It is a four-story structure and one of the most modern in the nation. It is equipped with special research laboratories, a greenhouse, and an auditorium seating 370 persons. The Minnesota Division of Forestry is one of the oldest in the nation; the late Professor Green taught courses as early as 1896.

The dedication of the new health service building at University Farm occurred on November 10, 1939, at 3:30 p.m. Taking part in the program were the three doctors who have guided the destinies of the Health Service since its founding in 1918—Dr. John Sundwall, Dr. Harold S. Diehl, and Dr. Ruth E. Boynton, present director. Dr. Sundwall, who headed the Health Service at the time of its organization, is now director of the Division of Hygiene and Public Health at the University of Michigan. He was succeeded by Dr. Diehl, who, in 1936, left the directorship of the Health Service to become dean of medical sciences. Dean Walter C. Coffey was another participant at the exercises; President Guy Stanton Ford presided.

The new \$109,000 health center was built with the aid of PWA funds and has a bed capacity of 37 which may be expanded to 60 in case of epidemic or emergency. It gives the Health Service two buildings for its important work, one on each campus. First home of the Health Service, after the Board of Regents recommended its establishment in 1918, was the basement of Pillsbury Hall, later occupied by the Department of Journalism. The influenza epidemic of that same year filled its inadequate quarters to overflowing. Emergency wards were established in the Union Building, in fraternity houses, and wherever space could be found. In 1930 the service moved into a new home of its own on the Main campus—built as a north wing of the University of Minnesota Hospitals group.

William J. Murphy Hall, costing \$250,000, was dedicated on May 2, 1940; the formal exercises were at an evening banquet in the Union. The date of the dedication was arranged to coincide with the twenty-fifth anniversary of journalistic education, celebrated May 2, 3, and 4. The first course of this type offered at the University of Minnesota was entitled, "Writing for the Press," and was given by William P. Kirkwood in 1915.

The dedication banquet, President Guy Stanton Ford presiding, brought to the University a large group of Minnesota publishers and editors and many alumni of the Department of Journalism. Well-known newspapermen and publicists from New York, Chicago, and other cities, and several deans of journalism schools in other states, were present.

The following dedicatory address was delivered by Regent Fred B. Snyder, chairman of the Board of Regents:

President Ford, Ladies, and Gentlemen:

In the fall of 1918 at the city of Chicago, Mr. William J. Murphy, owner and publisher of the *Minneapolis Tribune*, died. In his will he made a bequest to the University, in trust, the net income to be used to establish and maintain a School of Journalism on this campus, and a portion of the principal, at the discretion of the Regents, to erect a building for the school.

The amount of the bequest was \$350,000. On July 1, 1938, the fund had increased to \$633,817. The building has just been completed. It cost \$249,000 of

which \$110,575 came from the trust fund, \$25,000 from the Board in Control of Student Publications, and the balance from the federal government.

University authorities have now set aside three days for public recognition of the importance of schools of journalism, their aims and purposes. Distinguished speakers from Minnesota and other states have been invited to make addresses. The Regents extend to them a cordial welcome, appreciation, and thanks.

They will bring to the University the best there is in up-to-date journalism, with friendly advice and warnings to aid in advancing the high rank already attained by our school. We give them assurance that the teaching staff will study and consider all proposals and suggestions made by them and will adopt such as are based on irrefutable premises. This is as Mr. Murphy would wish it to be done. He was by birth a farmer boy. He earned all he had of education, money, and reputation as a publisher in the school of hard work. He took nothing for granted in lending the support of his paper; but once convinced, he was stable and bold in asserting his convictions. So should our staff inquire into, adopt, advocate, and teach all worthy recommendations made by our guests who honor this University by their presence.

The building has been officially named William J. Murphy Hall. We are here tonight to dedicate it formally. Surely the dedication should not be merely of the structure made of wood, iron, brick, and mortar, as a memorial to Mr. Murphy. Rather we should consecrate it to the spirit of philanthropy which prompted the bequest, and to his high ideals for journalism for which the building was erected.

The building is for today. The spirit to give for the good of others should live always.

Men of learning and experience in the management, editing, and printing of all kinds of newsprint, especially the daily newspaper, will enter the building and give instruction to students who shall go forth not only to publish the news of the world, but also to help mold public opinion to hold fast to, and continue in force, our form of government under and by which we enjoy freedom of speech, life, liberty, property rights, and the pursuit of happiness.

We hope our teachers and graduates will not write and publish things which may be later a source of regret. May they always remember the words of the son of a Persian tentmaker, who wrote:

"The moving finger writes; and having writ,
Moves on: Nor all your Piety nor Wit
Shall lure it back to cancel half a line
Nor all your tears wash out a Word of it."

Kingsley H. Murphy, the son of William J. Murphy, responded. Mr. Murphy said in part:

I want to thank the University for the distinguished honor conferred upon my father. It means his name will always be identified with the University and his achievements in journalism never will be forgotten.

Never in the history of the world has there been such a fight for freedom of speech as we have today. The newspapers of America have played a vital part in establishing free speech. I am sure that the Department of Journalism will contribute much toward the preservation of that vital and important principle.

Lee A. White, director of public relations of the *Detroit News* and former head of the University of Washington School of Journalism spoke on the subject, "The Press and the Public."

Others who made remarks on the dedication banquet program were Maurice Johnson, president, Department of Journalism Alumni Association; Herman Roe, publisher, the *Northfield News*, and chairman, Department of Journalism Committee, Minnesota Editorial Association; J. Stewart McClendon, president, Board in Control of Student Publications; Charles V. Warren, regional headquarters, Public Works Administration; and Ralph D. Casey, chairman of the Department of Journalism.

Other speakers on the three-day program, which began Thursday morning, May 2, and closed at noon Saturday, May 4, were: Dean Kenneth E. Olson, Medill School of Journalism, Northwestern University, "Public Relations and the Press"; Dr. Frank Luther Mott, director, School of Journalism, State University of Iowa, "Magazine Problems, Old and New"; Dean Vernon McKenzie, School of Journalism, University of Washington, "The Press and International Friction"; Philip S. Rose, editor, the *Country Gentleman*, "How To Win and Hold Readers"; Howard W. Blakeslee, science editor, the Associated Press, "Science and the Press"; Bruce Bliven, editor, the *New Republic*, "The Future of Journalism"; J. Russell Wiggins, managing editor, *St. Paul Dispatch and Pioneer Press*, "The Press and Agriculture"; Floyd Hockenhill, editor, *Circulation Management*, "Profitable Circulation Methods"; John S. Martin, associate editor, *Time*, "Newspapers: What They Are"; Henry H. Haupt, account representative, Batten, Barton, Durstine and Osborn, Inc., "Testing Your Advertising Copy"; Arthur T. Robb, editor, *Editor and Publisher*, "Surveying Today's Newspaper Problems"; F. Edward Hebert, city editor, *New Orleans States*, "How the Press Defeated the Long Machine in Louisiana"; Professor C. R. F. Smith, School of Journalism, Louisiana State University, "Increasing the Interest in Rural Correspondence"; Howard W. Palmer, editor, *Greenwich (Conn.) Press*, and president, National Editorial Association, "Advertising and Reader-Interest Surveys"; Allen E. McGowan, field manager, Minnesota Editorial Association, "Association Affairs."

The Short Course program was arranged by a joint committee from the Department of Agriculture and the Department of Journalism.

NAMING OF CAMPUS BUILDINGS

When new buildings are erected on the campus a special committee of the Administrative Committee of the University Senate is entrusted with the responsibility of recommending suitable names. If approved by the Administrative Committee, the names proposed by the special committee are then brought to the Board of Regents for final action.

During the biennium in addition to recommending names for buildings the special committee recommended, and the Board of Regents approved, two additional proposals: The University plant at Itasca Park was named the Lake Itasca Forestry and Biological Station; and it was decided that lecture halls and auditoriums would not be given names:

During the biennium names have been given to six campus buildings:

1. Coffman Memorial Union, for the new coeducational student union building
2. Students Health Service, for the new students health service building at University Farm
3. Thatcher Hall, for the new dormitory for graduate students at University Farm
4. William J. Murphy Hall, for the new publications building

5. Minnesota Museum of Natural History, for new natural history museum
6. Ada Comstock Hall, for the new women's dormitory.

Brief biographical sketches of two of the men and the one woman thus honored are given below. A detailed sketch of President Lotus D. Coffman for whom Coffman Memorial Union was named is omitted here since he receives more adequate treatment in another section of the report.

Roscoe Wilfred Thatcher.—Roscoe Wilfred Thatcher was born in Chatham Center, Ohio, October 5, 1872. He received the bachelor of science degree from the University of Nebraska in 1898 and completed the requirements for the master of arts degree in the same institution in 1901. In recognition of his contributions to science, his Alma Mater conferred upon him the degree of doctor of agriculture in 1921. In 1925 he received the LL.D. degree from Hobart College.

In 1913, Dr. Thatcher was called from the position of chemist and director in the agricultural experiment station of the University of Washington to become head of the Division of Agricultural Biochemistry at the University of Minnesota. In 1917 he was advanced to the position of dean and director of the Department of Agriculture, which position he held until 1921. The next six years he spent in New York state first as director of the Experiment Station at Geneva and later as director of the Agricultural Experiment Station at Cornell. In 1927 he became president of the Massachusetts Agricultural College, which position he held until 1932 when he resigned to devote his entire time to his speciality—biochemistry. He died at Amherst, Massachusetts, on December 6, 1933.

In all of his various relationships Dr. Thatcher was favorably known for his stimulating influence on high standards of scholarship. He was a strong supporter of graduate study and never overlooked an opportunity to draw capable young men and women to the University for advanced study in subjects pertaining to agriculture, forestry, and home economics. He brought to the University of Minnesota an insistence on the interdependency of the various divisions and the spirit of co-operation. He likewise stressed the importance of a broad, biological viewpoint as an essential in an agricultural program and he was instrumental in reorganizing the experiment station projects along institutional rather than strictly departmental lines, thus making for an increased breadth and depth of the work in the Experiment Station as it affects the rural life of Minnesota.

William J. Murphy.—William J. Murphy spent his entire life in the north-west area. He was born July 23, 1859, in Hudson, Wisconsin, and received his early education in that state. After receiving his bachelor of laws degree from Notre Dame University in 1878, he took postgraduate work at the University of Wisconsin. In 1880 he began the practice of law in Grand Forks, North Dakota. From 1880 to 1889 he was publisher of the Grand Forks, North Dakota *Plain Dealer*. In 1891 he became part owner and two years later sole owner and publisher of the *Minneapolis Tribune* and to it, until his death on October 24, 1918, he devoted his major energies. When he purchased the *Tribune*, it was heavily in debt and its mechanical equipment was out of date. Mr. Murphy revised its business management and editorial methods and modernized its equipment, and, as a result, it became a leading voice in the public affairs of the region. As a private citizen, Mr. Murphy had many philanthropies. His bequest to the University in support of the work in the field of journalism is one of the largest that has come to the University of Minnesota, and made it possible to establish journalistic training on a sound basis through the provision of a competent staff and adequate physical equipment.

Ada Louise Comstock.—Ada Louise Comstock is a native of Minnesota. She attended the University of Minnesota from 1892 to 1894 and also holds a degree from the State Normal School at Moorhead. She completed her undergraduate work at Smith College in 1897. She took her graduate work at Columbia University and at the Sorbonne in Paris and was appointed to an assistantship in the Department of Rhetoric at the University in 1899. She became an instructor in 1900, assistant professor in 1904, and was given full professorial status in 1909.

When a deanship for women was authorized by the Board of Regents in 1907 she was appointed to the position and then served until 1912 when she resigned from the University to become dean of Smith College. She served in that capacity until 1923 when she was elected to her present position as president of Radcliffe College.

Honorary degrees have been conferred upon her by Mt. Holyoke College, Smith College, University of Michigan, Boston University, University of Rochester, University of Maine, Brown University, and the University of Minnesota.

From 1921 to 1923 she was president of the American Association of University Women and in 1929 she was appointed by President Hoover to the National Committee on Law Observance and Enforcement. She is a member of Phi Beta Kappa, Delta Gamma, American Academy of Political Science, and numerous other social and professional organizations.

Miss Comstock's father, S. G. Comstock of Moorhead, was a member of the Board of Regents of the University from 1905 to 1908.

INTERIOR DESIGN AND DECORATION

The biennium was marked by the construction of several new and important buildings on the Main and the Farm campuses all of which raised special problems of interior design furnishing and decoration that were of considerable magnitude. The following were involved: Coffman Memorial Union, Ada Comstock Hall (dormitory for women), the Students' Health Service, the Minnesota Museum of Natural History, Murphy Hall (journalism and publications building), and Thatcher Hall (dormitory for young married graduate students). Decoration of such buildings is a matter quite different from the decoration of the ordinary classroom structure. Recognizing this, and wishing to set a standard for the interior of these new buildings that would be a credit to the University and a positive influence upon the students, the Regents on March 22, 1939, authorized the employment of the services of a professional interior decorator, and on May 9, 1939, confirmed an agreement with Mr. Johns H. Hopkins of Chicago, as interior decorator. The decorations and color schemes of the buildings named above were planned and carried through by Mr. Hopkins. The success of his work is immediately apparent to the eye, and the results achieved have been at no appreciable increase in the costs of furnishings and interior decorations.

THATCHER HALL

In the fall of 1939-40, Thatcher Hall, on the Farm campus, was opened as a residence for young married graduate students and teaching and research assistants. This modern and attractive building provides apartments of two sizes—the three-and-a-half room apartments which house a maximum of four adults, and the two-and-half room apartments, housing two adults, and possibly one child. There are 18 of the larger apartments (14 furnished, 4 unfurnished) and 18 of the smaller (12 furnished, 6 unfurnished). Each of the 36 apartments has an electric refrigerator, electric range, and all modern conveniences. The interiors were decorated by the university interior architect, Mr. Johns H. Hopkins, and are made especially attractive with the use of pleasing color and furniture design. Thatcher Hall provides at moderate rentals living quarters that meet the requirements of the youngest staff members and students of the Graduate School. Its construction,

financed in part through a grant from the Public Works Administration, marks a step in the direction of better housing facilities for a group of university employees whose needs at present are not adequately met.

GROWTH OF THE CAMPUS

The shift in the center of the campus which has been taking place over a period of several years continued during the biennium. With the completion of Ada Comstock Hall (residence for women) and Coffman Memorial Union located on university property lying south of Washington Avenue, large numbers of students are drawn to the south end of the Mall and forced to cross the traffic on Washington Avenue.

As the biennium closed, the Board of Regents was faced with the necessity of finding an adequate answer to the problems created by the division of the campus by Washington Avenue. An ultimate solution would involve the depression of Washington Avenue. This possibility is also directly related to any proposed reconstruction of the Washington Avenue bridge. The foot bridges now crossing the avenue are at best a temporary safety expedient.

The shift in the center of the campus also gives rise to questions concerning the uses to which the river flats south of the campus will ultimately be put. These lands are not owned by the University, but are under the control of the Minneapolis Park Board. Actually, however, they are so closely related to the University that it is difficult to think of them as not a part of the University's natural land area. Certainly, any uses to which the flats might be put should be determined with the University in mind. The Regents during the biennium have given thought to this matter and have created a committee to confer with the Park Board.

CONTROL OF CAMPUS STREETS

Several years ago Church Street, south of Washington Avenue, and a part of Delaware Street (adjacent to University Hospitals) were relocated to accommodate them to the general campus plan developed by Cass Gilbert. At the time, they were paved and provided with gutters, curbs, and sidewalks at university expense, and subsequently maintained by the University. With the gradual shift of the center of the campus toward the south, and with the growth of University Hospitals, the regulation of traffic and parking on these two streets has become increasingly difficult, although free and easy flow of traffic is essential in order to provide for ambulances and, if needed, fire apparatus. To meet the dangerous situation that was developing, the Board of Regents, on March 8, 1940, adopted a resolution requesting the city of Minneapolis to open and establish specified portions of these streets as public highways, and authorizing university administrative officials to take the steps necessary to achieve this objective. This was subsequently done, and the policing of the streets has now been assumed by the city.

GIFTS AND BENEFACTIONS

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GIFTS AND BENEFACTIONS

PRIVATE GIFTS TO THE UNIVERSITY

In this biennial report, as has been the custom in the past, there is a listing of the gifts which have been made during each of the two years (see pages 199-215). This enumeration serves as a formal acknowledgment of the several gifts, the uses to which they have been put, and the gratitude with which they have been received.

In the report for the biennium 1936-38 there was included a broader survey of the gifts which had been made to the University from July, 1851 through the academic year 1937-38. The tabulation at the end of this section (page 87) brings this broad survey up to date by the addition of the gifts for the years 1938-39 and 1939-40. The table shows that during the entire period the private gifts to the University total \$13,933,078.54. Of this amount, \$3,445,416.09 has been given for land, buildings, and equipment; \$7,760,473.77, for research, scholarships, fellowships, loans, prizes, and the like; \$593,608.68, for undesignated educational purposes; and \$2,133,580.00, for the maintenance of the Minnesota Hospital and Home for Crippled Children.

As in the previous report, it is shown that the largest proportion (69.6 per cent) of all of the gifts, was received during the ten-year period, 1920 to 1930. During the most recent ten-year period, 1930 to 1940, the second largest proportion (24.8 per cent) was received. Thus, during the past twenty years the private gifts to the University totaled \$13,150,903.54, and represented 94.4 per cent of the amount for the entire period since the establishment of the University.

During the past biennium, not only does the total amount of the gifts represent a substantial increase over the previous biennium, but the number of larger gifts has been greater. It is important also to list again, as was done in the previous report, some of the gifts, as examples of the important contributions which have been made during each of the two years and without which the University could not carry forward its full program of activity. By thus drawing attention to them, it is felt that the public generally may come to a fuller realization of the extent to which significant aspects of the work of the University have been and may be aided by donations.

1938-39.—Under the will of the Honorable Frank B. Kellogg, \$25,000 was used to establish a loan fund for law students; \$1,000 was added to the Law Alumni Loan Fund; \$1,400 was given by the Washburn Memorial Orphan Asylum to establish two fellowships annually for three years, to be known as the Washburn Home Fellowships; the Harriet Walker Hospital Association Fellowship in Obstetrics was established by a gift of \$1,000 from the Harriet Walker Hospital Association; \$28,524.84 was received from the Minneapolis General Hospital for fellowships, instructorships, and assistantships; the Carnegie Corporation of New York gave an additional \$6,000 for the Carnegie Corporation Fellowship in Dental Research; \$5,000 was added to the Emil Oberhoffer Memorial Fund; \$2,850 was added to the American Dry Milk Institute Fellowship; under the will of Dr. Charles Fremont Dight, \$75,000 was given to support research in eugenics; the Rockefeller Foundation gave \$16,500 for research on the mechanism of osmosis; \$14,400 was provided by the W. H. Barber Company to establish a Sivertsen Foundation for Cancer Research; \$7,500 was contributed by the Rockefeller Foundation for the purchase of research equipment for the biochemistry laboratories; the

American Council on Education gave \$4,177.44 for the evaluation of motion pictures; the Northwest Association of Ice Cream Manufacturers gave \$2,000 for research on ice cream quality; the National Research Council Committee on Aerobiology gave \$1,865.35 for research; \$1,250 was given by the National Research Council for research in endocrinology; an additional grant of \$15,000 was made to the Rockefeller Foundation Research on lipid metabolism; \$15,000 was added to the National Mineral Wool Association Fund; the Cancer Institute received a gift of \$10,000 a year for three years from the Citizens Aid Society; an additional sum of \$2,955 was added to the Joslyn Lightning Arrester Research Fund; \$2,000 was given to the Rock Analysis Laboratory; the Coffman Educational Research Fund was increased by \$1,273.20 by a large number of small gifts from various individuals; an additional \$1,200 was given by Merck and Company for Vitamin E research; \$1,000 was added to the Sandoz Chemical Works Research Fund; \$1,000 was added to the Firestone Fund; James F. Bell contributed \$150,000 toward the construction of the Minnesota Museum of Natural History; the Commonwealth Fund gave \$75,000 toward a Children's Psychopathic Clinic; gifts totaling \$31,000 to apply toward the construction of the Coffman Memorial Union were received from the Campus Club, the Committee on Salary Contributions, the Faculty Women's Club, and the Minnesota Union Board of Governors; the Board of Control of Student Publications gave \$25,000 toward the construction of the new Journalism Building (Murphy Hall); the American Legion Auxiliary, Department of Minnesota, gave \$1,350 for the purchase of an adult respirator for the University of Minnesota Hospitals; a gift of \$2,400 covering a two-year period was given for the Minneapolis General Hospital Pediatrics Directorship; an additional \$1,500 was contributed for a professorship in the School of Business Administration; an additional sum of \$1,085 was contributed by various donors to the Twin-City Jewish-American Lectureship Fund.

1939-40.—\$3,500 was added to the Law Alumni Loan Fund; \$1,000 was given by the American Legion Convention Corporation to establish a scholarship and loan fund; under the will of Mrs. Weed Munro, \$1,000 was received for the establishment of the Weed Munro Law Scholarship; \$3,300 was added for the Sears, Roebuck and Company Agricultural Scholarships; \$6,000 was given by the Carnegie Corporation of New York to establish three fellowships in dental research; the American Potash Institute, Inc., gave \$1,500 annually for three years to establish a research fellowship; the Procter and Gamble Company gave \$1,000 to establish a fellowship in chemical engineering; an additional sum of \$10,599.84 was given for the Minneapolis General Hospital Fellowships; an additional \$6,000 was given for the Carnegie Corporation Fellowship in Dental Research; the American Dry Milk Institute Fellowship was increased by the gift of \$2,700; \$2,000 was added to the National Research Council and National Live Stock Fellowship; the Washburn Home Fellowship was increased by the gift of \$1,400; \$45,000 was given by the Frascch Foundation for fundamental research in agricultural chemistry; the Carnegie Corporation of New York, through the Carnegie Institute of Washington, gave \$5,000 for the support of research on the relation of a virus to certain types of cell proliferation; \$4,600 was given by the John and Mary R. Markle Foundation for two specific types of research; \$2,510 for the purchase of electrical research equipment was provided by the Minneapolis General Electric Company and the General Electric Company; the Rockefeller Foundation gave \$2,800 for research on the application of spectroscopy to investigations of lipid metabolism; Frederick Stearns and Company gave \$1,500 for research on the effect of certain drugs; numerous small gifts totaling \$1,047.50 established the Chapman Memorial Fund for Research in Entomology; \$68,549.84 was added to the Dr. Charles Fremont Dight Fund for Research in Eugenics, this being the additional value over the previous estimate of the assets transferred to the University; the additional sum of \$18,000 was given for the National Mineral Wool Association Fund; the Minnesota Medical Foundation contributed \$3,500 for support of the Human Serum Center, John Dwan Fund; the Rock Analysis Laboratory received an additional \$2,000; the Northwestern Association of Ice Cream Manufacturers Research Fund received an additional \$2,000; an additional \$1,700 was given for the Hiram Walker Distilling Company Research; the American Potash Institute, Incorporated Research, received an additional \$1,500; the Milk Distributors Research Fund was increased by \$1,353.88; the National Research Council gave an additional \$1,250 for research on endocrinology; the

SUMMARY OF GIFTS BY DECADES

July 1, 1851 to June 30, 1940

Purpose	1850	1860	1880	1890	1900	1910	1920	1930	Grand Total	Per Cent of Total	Detail of Last Two Years*	
	to 1860	to 1880	to 1890	to 1900	to 1910	to 1920	to 1930	to 1940			1938-39	1939-40
Land	\$4,000			\$44,875	\$ 58,750		\$ 13,889.00	\$ 153,040.00	\$ 274,554.00	2.0		
Buildings	2,500		\$144,000	15,000	296,500		2,317,836.10	311,564.89	3,087,400.99	22.2	\$206,600.00	
Equipment					3,600	\$23,950	36,910.00	19,001.10	83,461.10	.5	2,610.00	\$ 5,873.02
	\$6,500		\$144,000	\$59,875	\$358,850	\$23,950	\$2,368,635.10	\$ 483,605.99	\$ 3,445,416.09	24.7	\$209,210.00	\$ 5,873.02
Research				\$ 5,000			\$4,393,401.62	\$2,348,481.38	\$ 6,746,883.00	48.4	\$256,314.06	\$204,973.12
Scholarships and fellowships				5,000	\$ 45,000	\$50,000	236,223.64	339,836.48	676,060.12	4.9	51,383.84	28,629.84
Loans and prizes					79,300	4,700	33,303.28	110,972.25	228,275.53	1.6	27,515.88	4,620.50
Miscellaneous (research, fellow- ships, scholarships, loans, and prizes)							83,834.50	25,420.62	109,255.12	.8	500.00	
				\$10,000	\$124,300	\$54,700	\$4,746,763.04	\$2,824,710.73	\$ 7,760,473.77	55.7	\$335,713.78	\$238,223.46
Educational							\$ 446,044.00	\$ 147,564.68	\$ 593,608.68	4.3	\$ 6,613.50	\$ 49,240.89
Maintenance for Minnesota Hospital and Home for Crip- pled Children							2,133,580.00		\$ 2,133,580.00	15.3		
Totals for decades	\$6,500		\$144,000	\$69,875	\$483,150	\$78,650	\$9,695,022.14	\$3,455,881.40	\$13,933,078.54	100.0	\$551,537.28	\$293,337.73
Per cent of total			1.0	0.5	3.5	0.6	69.6	24.8	100.0		4.0	2.1

* Included in 1930 to 1940 total.

American Creosoting Company provided an additional \$1,250 for research on wood preservatives; \$1,200 was added to the American Society of Heating and Ventilating Engineers Research Fund; the Firestone Fund was increased by \$1,000; contributions by interested individuals totaling \$5,040.89 were used in the establishment of the Robert Meyer Clinical Associate Professorship Fund; \$2,500 was contributed by an anonymous donor for an endowment in fine arts; the Faculty Committee on Salary Contributions gave \$2,000 for a portrait of Mrs. L. D. Coffman; an annual contribution of \$1,000 was given by the Booth Memorial Hospital toward the maintenance of maternity service at that hospital; the Rockefeller Foundation provided an additional \$39,000 covering the support for four years of the work in Training for Public Administration; the Emergency Committee in Aid of Displaced German Scholars provided an additional \$1,500 for a professorship in the School of Business Administration; an additional \$1,200 was given for the Minneapolis General Hospital Pediatrics Directorship; and an additional \$1,000 was given to the Psychology Department Chairmanship Fund.

These are some of the larger gifts which have been made to the University during the past biennium. They are important and their value should not be underestimated. Without them many of the important activities of the University could not be carried on. But they are not enough. The smaller gifts which have come from many thousands of friends of the University loom large in the aggregate. More and more, individuals are becoming aware that it is within the power of everyone to help in the work in which the University is engaged. It should be realized that cash gifts as small as one dollar, or the donation of one or more books to the library, are sought and appreciated, and through such gifts each donor can feel the satisfaction of having assisted in bringing the advantages of higher education to a larger body of the deserving youth of the state. (For the relation of private gifts to the building needs of the University see page 75 of this report.)

FROM AN UNKNOWN DONOR

On December 8, 1939, announcement was made of the receipt by the University of a gift of \$2,500 from an unknown donor, accompanied by the following letter:

Chicago, Illinois
December 2, 1939

DEAR PRESIDENT FORD:

We desire to make the inclosed contribution to the University of Minnesota, which we hope you will use as you see fit.

Anonymous.

In reporting this gift to the Board of Regents, the following statement was presented by the president:

This generous anonymous gift of \$2,500, with its expressed confidence that I would find where it might be best used to forward the interests of the University, puts me on the spot. Indeed, as my mind ranges over the areas we must, through private gifts, make contributory to the richer life of students and staff and the whole commonwealth, it puts me on many spots. When I couple it with other recognitions realized, and some day to be realized, through gifts from private sources, it strengthens my faith that beyond the pride and interest of the people evidenced each biennium, the University has won the interest of those who see in its cultural and scientific work something that deserves private funds, because the University through a long future is an agent for realizing their own dream of contributing something permanent to the making of a better world.

I am going to use this gift to set up an advance post in a sector of the University's life into which we have made some slight advance in recent years. It is

one where real success will come when some other donor or donors give even more generously than our anonymous friend. I mean the field of the fine arts in every creative and cultural sense.

I am going to give this gift the distinction of starting something that perhaps neither the giver, nor I, will see finished but that will come some day from other friends. It will be the first gift toward the building for the fine arts and allied interests. But it will be more, for I am acting for the donor in laying down conditions for his gift. Pending the realization of the larger plan, the income from the fund each year, or accumulated for a two-year period if advisable, will be used to buy works of art to go into the gallery. When funds adequate to build a home for the fine arts come, this fund may, in the judgment of the fine arts staff and the president, be used to put into the new building the most beautiful and needed thing that will give permanent distinction to the building and the gift, or it may be used to support student work in the creative fields of the fine arts and of literature with special reference to the drama.

I hope no prospective donor will think I object to being put on the spot by anonymous gifts. I should like to put their names in the golden book of givers that we plan for the foyer of Northrop Memorial Auditorium, but I don't insist on names or even on initials when accompanied by gifts.

I would be happy to have this donor tell me, if he will, a name or a designation that he would like to have given to this fund. I hope that this statement will come under his eye and that he will accept from me and the Regents and all the students, present and future, our genuine gratitude for his generosity.

MAYO FOUNDATION HOUSE

On August 31, 1938, as one of his last benefactions to the University of Minnesota, Dr. William J. Mayo, with Mrs. Mayo, gave to the Mayo Foundation for Medical Education and Research, their home in Rochester, with its land and gardens, together with an endowment sufficient for its maintenance. In making the gift no conditions relative to its use were set up; this was to be left entirely in the hands of those to whose use it was dedicated.

Dr. Mayo felt, however, that continuing education in the medical profession, much of it necessarily factual, needs a parallel development along social lines. He believed that, in a democracy, knowledge must become oriented to the changing scene to meet adequately the problems that relate to human beings and their social relationships. Only then, he was convinced, does it become education in the fullest sense. Because of the desire on the part of Dr. and Mrs. Mayo to contribute to education in this broader sense, it was their hope that the Mayo Foundation House would provide a meeting place where men of the medical profession, and their students, might exchange ideas for the good of mankind.

The statement which Dr. Mayo composed in connection with the bequest appeared in *The Proceedings of the Staff Meetings of the Mayo Clinic* for August 31, 1938, under the title "The Establishment of 'The Mayo Foundation House' and Its Purpose." The complete text of the statement follows:

When people have entered the seventies of their age, they usually find themselves growing conservative. As the years pass, accumulating experiences, some of them unfortunate, leave scars on the mind and spirit, with a loss of resiliency, whereas the young are given courage and enthusiasm by their successes.

When I was sixty-five years old, I retired from the operating room and took a consulting position, as did my brother Dr. Charles H. Mayo in his turn. We did not give up surgical work because we desired to do so, but because we wished to discontinue while we should be able to advise and aid the younger men who

were to take our place. For a year before I retired from the operating-room routine, I found as I followed through, carefully observing, that the younger men really possessed in the enthusiasm of youth the ability to grasp and orient new knowledge, even though it might conflict with former experiences—an ability that I no longer had in so marked a degree. I had the wisdom of experience, but I carried also the weight of past responsibilities.

At about that time we brought into the organization the idea that at the age of sixty-five staff members would be eligible for senior positions, so that younger members of the staff might be afforded opportunity to advance. The senior members thus become general consultants, in which important positions they may continue as long as they are able, and are not cut off abruptly at a definite date, to wander around, as it were, for the years remaining to them, wondering what to do with their time.

My brother and I from the beginning of our medical practice believed that we should return to the people from whom it came, in the form that would be in their best interest, any sums in excess of a reasonable return for the work we accomplished. It is a man's duty to provide moderately for his family, but anything beyond this may be a detriment to his descendants.

In the United States, love of our country and its institutions, the inspiring history of the nation, the great leadership that from generation to generation has brought us through trials and tribulations, and the material conditions which have made for a more abundant life, all stir our minds and hearts. That the people recognize this fact, perhaps unconsciously, is shown by faith and hope for the future, as symbolized by education.

The cost of education borne by the American people is greater than any other expense supported by public taxation, and this burden is borne willingly, with the expectation that finer citizenship will be the result, and with the hope that the democratic form of government to maintain which the nation has offered life and wealth in four great wars, shall be made safe and dependable in the years to come.

As one travels through the United States, he finds in nearly every village, no matter how remote or how poor, a structure, the public school building, which is magnificent compared with its surroundings. The school house is the proud monument to the desire of the people that their children shall receive a better education than they themselves had. It is a visible testimonial of their loyalty to the country in which they live, and of their resolute determination that its future shall be made secure, not by efforts of arms, but by efforts of intellect. Instruction from teachers and books teaches a man what to think, but the great need is that he should learn how to think. Memory tests as evidence of a man's mental capacity have been greatly overrated and too little attention has been paid to those methods of training that teach how to apply what he knows. We are so likely to think of knowledge as synonymous with education. But knowledge is static. Have we thought enough of wisdom, which moves knowledge and makes it useful? We think of truth as something that is invariable, but add a new circumstance and we have a new truth. Truth moves, as life moves, and what is true of one generation may not be true of the next. And this is true of education. The future of this country and of the blessings so markedly developed here depends on a continuing education, not only factual, but along the lines of sociology.

Education must concern itself with the aspirations and needs of the common man. Formal education in this changing age must alter in order to meet adequately the problems that have to do with human beings and their social relationships. That better social understanding is developing is evidenced by our increasing provisions for the benefit of all the people, in libraries, art galleries and museums, good roads, lakes, parks, athletic fields, and playgrounds. Developing and advancing as we are, scientifically, culturally, and socially, we must be careful that these changes are not controlled, although perhaps to some extent they may be guided, by the conservatism of older people.

It is because Mrs. Mayo and I, and our families, are interested in a continuing education in this broader sense, that we are devoting our house and gardens, with an endowment sufficient for their maintenance, to the purposes of the Mayo Foundation for Medical Education and Research, of the University of Minnesota. We have no desire in any way to dictate or control the manner in which this adventure in education shall be carried out. It is for the younger people to meet the conditions of their generations in the way that appears to them to be wise and best.

The donors hope that the Mayo Foundation House will be a meeting place where men of medicine may exchange ideas for the good of mankind.

In appreciation of this gift, the Board of Regents on October 8, 1938, adopted the following resolution:

The Board of Regents of the University of Minnesota has read with deep interest and profound respect the statement of one of its number and is stirred by the spirit of generosity and the conception of social responsibility embodied in it. It is fitting that these should be noticed.

Therefore be it resolved: That the Board of Regents of the University of Minnesota does by rising vote enter upon its minutes a record of its appreciation of the benefaction of Dr. and Mrs. Mayo; and does instruct its secretary to convey to them a copy of this action, thereby giving formal expression to the sentiments evoked by this generous and far-sighted gift.

MINNESOTA MEDICAL FOUNDATION

The formation of the Minnesota Medical Foundation on October 14, 1939, by the Medical Alumni Association of the University was one of the outstanding events of the second year of the biennium. The presentation of this foundation to the University was a high light of the banquet celebrating the fiftieth anniversary of the founding of the Medical School, and was made by Dr. Jennings C. Litzenberg, professor emeritus of obstetrics and gynecology, who served as the spokesman for the medical alumni.

The Minnesota Medical Foundation has two broad purposes: to unite in an active organization everybody—alumni, other physicians, laymen—interested in assuring continuous progress in medical education, medical research, and medical service in the Northwest; and the procuring and administration of funds to support Medical School activities that will work most effectively toward the prevention and treatment of disease. To achieve these purposes the foundation provides three types of membership—foundation patrons, life memberships, and annual memberships—and has the power to receive gifts and endowments and to secure and hold patents, trusts, and property.

A few of the more specific purposes of the foundation are the following: the setting up of scholarships and loan funds to aid superior students; the providing of funds so that the Northwest's medical research may continue at full speed; the providing of funds to make possible lectureships by distinguished scientists from distant cities; the providing of funds for special professorships and for supplementing salaries where necessary; and the publication of a bulletin to bring to workers in the medical profession in the Northwest information concerning significant research in progress at the Medical School, important changes in educational methods or organization or constitution of the faculty, and authoritative opinion of the practical value of scientific progress in the various fields of medicine.

The thanks of every citizen of Minnesota go to the medical alumni for their constructive contribution to the state's welfare. As time goes on the benefits of the foundation will be reflected into countless thousands of homes where there may be illness and suffering.

THE LEE I. SMITH ENDOWMENT FUND

In accordance with the wishes of Professor Lee I. Smith, chief of the Division of Organic Chemistry, the proceeds of his share of royalties from patents covering his vitamin E research work will go into a special fund known as the Lee I. Smith Endowment Fund. Approval of the creation of this fund was given by the Board of Regents on June 15, 1940.

The purpose of the gift is to further the science of organic chemistry and to afford to exceptional students an opportunity for continued study in chemistry. To these ends, four annual fellowships in the study of organic chemistry are to be established from the funds available, to be known as:

1. The William H. Hunter Fellowship in Organic Chemistry
2. The George B. Frankforter Fellowship in Organic Chemistry
3. The Elmer P. Kohler Fellowship in Organic Chemistry
4. The William Lloyd Evans Fellowship in Organic Chemistry

The first two of these are named for, and established in honor of, two men who were instrumental in establishing the University of Minnesota School of Chemistry, and in its development; the last two, for the last and first of Professor Smith's professors of chemistry, to whom, he states, "I owe much more than I can every repay."

The terms of the fellowships as set forth in the agreement are as follows:

1. Each of the Fellowships is annual, and each shall be awarded by the Division of Organic Chemistry at the University of Minnesota, to superior students from Minnesota or elsewhere who may be pre- or post-Ph.D., and either men or women.

2. The stipend of the pre-Ph.D. fellows shall be \$750 per academic year and the stipend of the post-Ph.D. fellows shall be not to exceed \$2,000 per academic year. The number of fellowships granted in any year shall not exceed four. The number of pre- and post-Ph.D. fellowships shall, subject to available funds, be upon recommendation of the Division of Organic Chemistry. Any funds received in any given year and not used for pre- or post-Ph.D. fellowships shall be placed by the Regents in the Lee I. Smith Endowment Fund, the income from which shall be used for the support of these fellowships after the expiration of the patents concerned.

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STUDENT INTERESTS AND ACTIVITIES

TESTING BUREAU

The University Testing Bureau was opened in 1932. Beginning in the fall of 1939, 50 cents a quarter was added to the students' activity fee to make the services of the bureau available to all students on the same basis as are those of the Health Service.

When the Testing Bureau first opened, each student served paid a small fee, and the University defrayed the bulk of the cost. With the extension of its services to large numbers of students, it became necessary to devise a sounder method of support. For a time assistance was provided through WPA funds, but WPA assistance on this service project was terminated in 1938-39. The Students' Health Service had proved the feasibility of spreading costs over the entire student body rather than requiring each individual who needs medical care to assume the heavy financial burden himself. The volume of sickness, disease, and accident could be predicted even though the individual incidence could not be foretold. Similarly the number of students needing the testing and counseling service could be estimated and those needs are now met by the general fee.

The Testing Bureau discharges several important functions. It gives tests each year to some 22,000 high school students, and these serve as the basis of college admissions. It carries on fundamental research. It provides laboratory opportunities for graduate students in education and psychology. But most important of all, is its counseling service to students. Here individuals are guided with reference to their vocational objectives as well as with reference to their achievement in classes. Approximately 3,500 students seek this service annually. Also, the bureau supplies test results for the use of deans and advisers who are counseling students. An additional 3,000 individuals are served this way. Faculty members refer students to the bureau, but as the years have gone by, an increasing proportion of the individuals served has come voluntarily. This is evidence of the value students place on the service.

Contrary to the opinion held by some, the bureau's efforts are not devoted primarily to students who are failing or those of low ability. A study of the cases handled shows that it serves a typical cross section of the student body—those of high, of average, and of low ability; those coming from homes of every economic level, and all grade levels; students just about to enter the University and graduate students.

As new needs appear, the bureau tries to meet them. For example, to meet the demand for assistance on the part of students with reading disabilities, a special reading clinic began operation in the winter quarter of 1940.

UNION CONSTITUTIONS

Two constitutions governing student unions at the University received approval by the Regents during the second year of the biennium.

On January 12, 1940, approval was given to the following plan of organization and administration for the University Farm Union Board:

PLAN OF ORGANIZATION AND ADMINISTRATION FOR A
UNIVERSITY FARM UNION BOARD

Section 1. University Farm Union Board of the University of Minnesota.

The University Farm Union Board shall consist of representatives of students elected by the student body of the College of Agriculture, Forestry, and Home Economics (see Section 5) and faculty representatives as follows: Dean of the College of Agriculture, Forestry, and Home Economics; Dean of Women; two faculty members, one man and one woman, to be appointed by the Dean of the college, each for a term of three years; and the Manager of the Minnesota Union, as a non-voting member.

The Board shall elect a president and a secretary, with the duties usually pertaining to those offices, and may elect and appoint other officers and committees as the management may require.

Section 2. Management of University Farm Union.

The University Farm Union Board shall have charge of the management of the Union facilities on the University Farm campus. The actual management of the University Farm Union shall be under the supervision of the Manager of the Minnesota Union, subject to the direction and control of the University Farm Union Board. The Board shall cooperate with the management of the Minnesota Union, Shevlin Hall, and subsequently of the Coffman Memorial Union in the interest of uniformity and in the development of social centers on both campuses.

Section 3. Duties and Responsibilities.

The University Farm Union Board shall be charged with the duty and responsibility of developing as far as possible through the University Farm Union facilities, a coordinated social program which shall furnish to a maximum number of the students of the College of Agriculture, Forestry, and Home Economics such social activities as will contribute educational values as well as leisure time entertainment. It shall be the aim of the Board to so organize the direction of the University Farm Union activities that every student in the College shall have opportunity for social experiences that will build personality, character, and leadership and the ability to make successful contacts with persons in all walks of life.

Section 4. Finances.

Of the total Union fees, three dollars per quarter per student, beginning with the fall quarter, 1939-40, paid by students in the College of Agriculture, Forestry, and Home Economics, twenty per cent shall be retained for expenses of the Minnesota Union and Shevlin Hall on the Minneapolis campus and subsequently of Coffman Memorial Union; eighty per cent shall be allocated to the Farm campus to be used under the direction of the University Farm Union Board as follows: such amounts as may be necessary for current expenses, program, support, and equipment of the Union at University Farm; the surplus at the end of each year shall be allocated to a permanent University Farm Union Reserve Fund to be used only for (a) extraordinary operating, maintenance and special equipment needs, (b) expansion and equipment of additional building space at University Farm when such shall become available for Union purposes, and (c) as a nucleus for a possible future Union Building on the University Farm campus.

All funds derived from the sale of merchandise, rentals and activities of the Farm Union shall be deposited with the University business office.

The regular business and maintenance expenses of the Farm Union shall be cleared through the business office in the normal manner.

For such committee and program expenditures as cannot be handled in the above manner, there shall be provided a revolving fund. Disbursements from this fund shall be made by check signed by the manager of the Minnesota Union. This fund shall be in the amount of \$200 and may be increased when necessary. It shall be maintained at approximately that level by monthly reimbursements from the budget of the Farm Union.

Any surplus from the University Farm Union enterprises, such as soda fountains, game rooms, etc., may be used in addition to the allotment from fees as defined above for current expenses and shall also be used under direct control of the

University Farm Union Board to promote such worth-while Union activities as contribute to educational as well as social values in student campus life.

Section 5. Student Membership of the University Farm Union Board.

The student membership of the University Farm Union Board shall be as follows:

(a) Two students from each of the three college groups: Agriculture, Forestry, and Home Economics; to serve two years and to be elected from those students who will be juniors in the term in which they assume office, provided that in the first year one student in each group shall be elected from the senior class and shall serve for one year, so that thereafter there shall be one senior and one junior from each group on the Board.

(b) Additional members from the three groups on the basis of the total student college registrations of the two preceding quarters, viz., one additional member from each group for every four hundred students or major fraction thereof registered in that group; to serve one year. When any group is entitled to more than one additional member, at least one such member must have sophomore classification when assuming office, and all remaining additional members must have not lower than sophomore classification when they assume office.

(c) The President of the Students' Council of the College of Agriculture, Forestry, and Home Economics (*ex officio*), as a non-voting member.

All elections shall be held at the time of the regular student elections in the spring. The rules and administrative procedures of the Students' Council of the College of Agriculture, Forestry, and Home Economics shall govern student eligibility for candidates for membership.

The Board shall fill student member vacancies but such members shall serve only until the following elections.

On May 10, 1940, the Regents approved a constitution for the University of Minnesota Union, organization of which became necessary with the completion of Coffman Memorial Union. Under the new constitution, a co-educational Union is created. This constitution was drafted by a student-faculty-alumni committee, appointed by President Ford, with these members:

Roland S. Vaile, *chairman*, George K. Belden, Dorothy A. Bennett, Anne D. Blitz, Wallace V. Blomquist, Dr. Ruth E. Boynton, Victor E. Cohn, E. William Cowdry, Eben Finger, Mrs. George Glockler, H. Gordon Hanson, Evron M. Kirkpatrick, Rod A. Lawson, J. Lewis Maynard, William T. Middlebrook, Elaine M. Murphy, M. Patricia Murphy, Ernest B. Pierce, Dr. Erling S. Platou, Susie M. Van Sickle, Malcolm M. Willey, Edmund G. Williamson, and C. Gilbert Wrenn.

The constitution drawn by this committee was submitted to the student body and ratified at a special election on April 24, 1940. The constitution follows:

PREAMBLE

We, the students of the University of Minnesota, in order to form a permanent organization, take advantage of the facilities offered by the Coffman Memorial Union building, and provide for a comprehensive social, recreational and cultural program, do ordain and establish this constitution for the University of Minnesota Union:

ARTICLE I

SECTION 1. The University of Minnesota Union, hereinafter designated as the Union, is an association of those students at the University of Minnesota who pay the Union fee.

SEC. 2. The Union shall have its quarters and center its activities in the Coffman Memorial Union Building located on the main campus of the University of Minnesota.

SEC. 3. The Union shall operate as a department of the University directly responsible to the President of the University.

SEC. 4. The governing body of the Union shall be known as the University of Minnesota Union Board of Governors, hereinafter designated as the Board.

ARTICLE II

SECTION 1. The Board shall have the power:

- (a) to formulate and carry into execution a broad social, recreational, and cultural program for the student body of the University.
- (b) to employ such professional and non-professional help as is necessary and proper to the formulation and execution of its program.
- (c) to establish and enforce rules and regulations concerning conduct in and use of all student facilities in the building, subject only to general University regulations.
- (d) to prepare an annual budget.
- (e) to negotiate with the University authorities operating the physical plant and dining facilities in regard to student grievances, and to investigate the operation of the physical plant and dining facilities when a majority of the Board deems such investigation desirable.
- (f) to present the results of any investigation it may make to the President of the University together with whatever recommendations a majority of the Board shall approve.

SEC. 2. There shall be a liaison committee composed of three members elected by and from the Union Board of Governors and two members appointed by the Comptroller. This committee shall have the power to negotiate with the proper University authorities concerning the operation of the physical plant and of the dining facilities, and shall have the right to employ outside experts.

ARTICLE III

SECTION 1. The Board shall be composed of:

- (a) Five non-student members.
- (b) Fifteen student members, nine of whom shall be men and six of whom shall be women.

SEC. 2. Four non-student members of the Board shall be appointed annually by the President of the University.

- (a) One non-student member of the Board shall be appointed annually by the General Alumni Association.
- (b) Non-student members shall not be eligible for more than four years in succession.

SEC. 3. The student members of the Board shall be elected from the University at large by the Hare system of proportional representation. To be eligible for membership on the Board a student must:

- (a) be a regularly enrolled student of the University of Minnesota who has paid the Union fee.
- (b) meet the all-University eligibility requirements.
- (c) be certified by a nominating committee which shall consist of four members; one man and one woman to be named by the Board, one person to be named by the All-University Council, and one person to be named by the President of the University. In its certification of applicants for nomination the committee should place no arbitrary limit on the number of candidates and should make an effort to provide a slate of candidates who have an interest in and ability for membership on the Board as indicated by activity in Union and other University activities; it shall certify at least twice as many people as there are vacancies to be filled. Unanimous vote of the nominating committee is necessary to reject any candidate. The rules of procedure for the nominating committee shall be adopted by the Union Board.

The men and women candidates shall be listed on separate ballots, but all voters shall be entitled to vote both ballots.

All students who pay the Union fee shall be eligible to vote in elections for members of the Board.

The elections shall be conducted in accordance with the general election regulations established by the All-University Council.

The members of the board shall be elected for two-year terms provided that the term of any member who will not be eligible for membership the following school year because of graduation or for other reasons shall expire at the time of the spring elections of the last year he is eligible.

ARTICLE IV

SECTION 1. The newly elected members of the Board shall take office immediately following the election, the retiring members to remain in an advisory capacity for the rest of the spring quarter.

SEC. 2. Within one week following the spring elections, the outgoing president of the Board shall call a meeting of the Board for the purpose of electing officers for the coming year :

SEC. 3.

- (a) The officers of the Board shall be president, vice president, secretary, and such others as the Board may designate.
- (b) The officers shall be chosen by the Board from its student membership provided that the Board may make an exception in the case of the secretary.

SEC. 4. The Board shall determine the rules of its proceedings.

SEC. 5. Vacancies in the student membership of the Board shall be filled by the Board. Vacancies in the non-student membership shall be filled by the corresponding appointing official. All vacancies shall be filled only for the balance of the unexpired term.

ARTICLE V

SECTION 1. Amendments to this Constitution may be made in the following manner :

- either (a) by the Board of Regents of the University.
- or (b) by proposal from the Union Board.

SEC. 2. Amendments shall be proposed by the Board whenever :

- either (a) a majority of the entire membership of the board deems it necessary,
- or (b) a petition is presented to the Board signed by a number of qualified voters equal to ten per cent of the number of ballots cast at the preceding spring election.

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

ARTICLE VI

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

STUDENT COUNCIL CONSTITUTION

The All-University Student Council operates under a constitution which must be ratified by the student body and given final approval by the Board of Regents. A complete revision of the constitution was made during 1937-38 and appeared in the 1936-38 *President's Report*, pages 94-96.

During the first year of the current biennium an amendment constituting Article VII was ratified by the student body on April 21, 1939, and approved by the Board of Regents on June 17, 1939. The text follows :

ARTICLE VII

SECTION 1. Referenda on legislation of the All-University Council shall be granted by the All-University Council on petition of 10% of those who voted at the last previous election.

SEC. 2. The Council shall provide for a recall vote upon receiving a petition asking for the recall of a member of the Council carrying signatures of 10% of those who voted at the last previous All-University election.

In 1939-40 two additional amendments, II and III, were ratified by the student body at the spring elections and received approval of the Board of Regents on June 15, 1940. The text follows:

AMENDMENT II

Where a Council member will be eligible to earn a baccalaureate degree at the spring commencement before the end of the term for which he has been elected, and he will not thereafter be pursuing academic work leading to another baccalaureate degree, his term shall be considered to have terminated at the date of the spring election before he is so eligible to earn that baccalaureate degree, and his office shall be thrown open to candidates at that election.

AMENDMENT III

(1) A permanent Election Board shall be composed of the Financial Adviser to Student Organizations; two students from the Law School, juniors or seniors, to be appointed by the Dean of that school; and two students majoring in political science, either juniors or seniors or graduate students, to be appointed by the Chairman of that department.

(2) This Board shall administer rules of election procedure for all-University elections as prescribed by the Council. A majority vote of the entire Board shall rule.

(3) Section 4 of the constitution is hereby repealed.

UNIVERSITY PERSONNEL COUNCIL

Although purely advisory in character, the University Personnel Council is an extremely important body. The personnel phase of higher education has three broad objectives: to assist in the alleviation of those conditions which interfere with students' development; to assist in increasing the effectiveness of the University's instructional program; and to facilitate students' progress toward intellectual, social, moral, and emotional maturity.

Under the chairmanship of Professor Edmund G. Williamson, co-ordinator of student personnel services, the council's membership during the biennium was broadly representative of the entire University. The other members were: Jean R. Barnes, Anne D. Blitz, Dr. Ruth E. Boynton, Jane Bradley, Bryng Bryngelson, Leora E. Cassidy, Asher N. Christensen, Dr. C. D. Creevy, John G. Darley, Katharine J. Densford, Watson Dickerman, Marcia Edwards, Everett Fraser, E. M. Freeman, G. Raymond Higgins, Dorothy G. Johnson, Dr. William F. Lasby, Alex S. Levens, T. R. McConnell, E. E. Nicholson, Claire C. Plank, C. H. Rogers, J. Benjamin Schmoker, Royal R. Shumway, James W. Thornton, Jr., Rodney M. West, and Dale Yoder.

Throughout the history of higher educational institutions, one officer after another has been given functions relating to student development, yet involving more than the intellectual growth of students. The need for these services grew with the change in the size and character of the institutions. Since each service developed at a particular time to meet a particular need, there was little co-ordination; often one agency would deal with an individual case without knowing that another agency was also working, perhaps at cross purposes, on the same case.

One important objective of the council is to cultivate a group attitude or an all-university point of view, toward personnel work. Subcommittees of the council are at present making special studies. One of

these involves the entire problem of an adequate program in the high school, and in the freshman year, for those who plan to go to the University. Another subcommittee is reviewing personnel records in various university units.

To develop a co-ordinated personnel program is a long-term job. To do it effectively and at the same time democratically, three things are essential: there must be an advisory council that is representative of the various groups engaging in personnel work on the campus; there must be a thoroughly trained individual to plan and direct the work and to explore with the council the many problems which arise; and there must be, upon the part of the entire faculty, a willingness to co-operate in the program. The personnel program at the University is based on these essential requirements. Its steady progress reflects the interest and co-operative attitude of the members of the staff.

LETTERS TO PARENTS OF STUDENTS

Considerable emphasis has been placed during the biennium upon maintaining contacts with parents of students. Looking toward this, the president has at the outset of each academic year sent to the parents of every entering student a letter calling attention to certain university facilities and especially offering co-operation with the parents in aiding the students when they reach the campus. The letter mailed in the fall of 1940 read as follows:

To the Parents of University Students:

Your son [or daughter] has completed his admission at the University of Minnesota, and we hope that the years he spends here will prove to be profitable.

I hope this letter will serve to assure you that we have his best interests in mind. To that end the University has set up certain helpful arrangements. These are quite outside the classrooms in which we and you expect him to justify our efforts and your sacrifices.

1. All colleges of the University have an established system of faculty advising for students. The University has also set up special services under staff members competent to assist students with their individual problems. The deans and other administrative officers are also glad to consult with students concerning any or all of their personal problems.
2. An employment bureau is conducted to help students who must partially or wholly support themselves in finding suitable outside work.
3. For purposes of educational and vocational guidance, a large and well-equipped Testing Bureau provides extensive psychological testing and personal interview service. Any student may come voluntarily to this Bureau at any time during the year to use these services. Advisers, instructors, and administrative staff members may also refer students to the Bureau.
4. The Health Service has early contact with each new student and does all in its power to safeguard the health and improve the physical condition of individual students and the student body.
5. At the close of each fall and winter quarter a report of his quarter's grades in all subjects is sent to each student. At the close of each spring quarter he receives a complete record of his work to date. *If requested to do so, we shall be glad to send duplicate reports direct to you.** Write the Registrar of the University. (Be sure to give your son's [or daughter's] name for identification.)
6. Every college has a Students' Work Committee which has special charge of the work of all students who fall below grade. Warnings are given to such students and advisers are also kept informed. When failure is very

*A special bulletin, *Student Counseling at the University of Minnesota*, containing these and other services, will be mailed on request.

serious, students are placed on probation and parents are always notified by the committee. Students are not dropped for scholastic deficiency until they have had a probationary period and have failed to improve.

The University feels that one of the most important purposes of a college training is the development of self-reliance. Without that self-reliance a college education loses much of its value. We believe that cooperation with the parents is much more effective if students themselves keep their parents informed of their scholastic progress. We expect your son to assume more personal responsibility for his own educational progress than was expected of him during his earlier school life.

Parents of students are cordially invited to come to the University at any time, visit classes, confer with instructors, faculty advisers, deans or registrar, concerning their son's work and progress. If it is inconvenient to visit us, we shall welcome your correspondence. The University will greatly appreciate your cooperation in helping your son to make the most of his college course.

Sincerely,

GUY STANTON FORD, *President*

Many of the deans have also developed the practice of writing letters to parents, especially to commend them upon outstanding records of their sons and daughters. Such commendatory letters are also supplemented by the deans with letters to parents of selected students, informing them of difficulties the students appear to be encountering, and offering special help.

The responses to the president and the deans evoked by letters of these types show how such letters are appreciated.

NATIONAL STUDENT FEDERATION

The National Student Federation of America is an organization with membership representing student councils in colleges and universities throughout the United States. It serves as a clearing house for consideration of problems of concern to student governing bodies. The fifteenth annual meeting of the organization was held at the University, December 27-31, 1939, and 140 delegates representing institutions in all but eight states, were present.

The discussions at the sessions centered around such subjects as peace, education, and public affairs. Attention was also given to new and old techniques of student government, all aspects of student welfare, student activities, freshman orientation, student-faculty relations, and elections. In addition to contributions to the program made by members of the University of Minnesota faculty, three nationally known educational leaders addressed the conference: Dr. John W. Studebaker, United States commissioner of education; Dr. Stephen Duggan, director of the Institute of International Education; and Mr. Aubrey Williams, administrator of the National Youth Administration.

STUDENT EMPLOYMENT STUDIES

Two studies relating to alumni employment were completed during the biennium. Both used data from questionnaires sent to 17,825 men and women who were graduated from the University in the years from 1928 to 1936. Completed questionnaires were returned by 5,828 alumni.

The first study, by Professor Alvin C. Eurich and Mr. C. Robert Pace, concerned the employment problems of the graduates of those

years. The study reports that in 1928, 9 per cent of the men graduates of the University of Minnesota for that year had positions awaiting them before they graduated; 42 per cent obtained jobs within two weeks after graduation; and only 3 per cent required more than a year to find a job. The women graduates did nearly as well. By 1933 the situation had changed; only 5 per cent of the men had jobs before graduation; only 31 per cent found jobs within two weeks, and 13 per cent were still jobless at the end of a year. But by 1936 conditions had greatly improved: 11 per cent had received employment before graduation; 35 per cent had jobs within two weeks, and only in the case of 1 per cent did it take more than a year to find a job.

Although job opportunities have returned approximately to the 1928 figures (or had in 1936), wages have remained far below the pre-depression levels. The trends in women's incomes show the same clear influence of the depression as was revealed in the men's. Earnings of graduates in medicine and law range well above the incomes of those who attended other schools of the University. However, the longer periods of training required, and the larger overhead expenses in those professions, are important factors to bear in mind in interpreting the data.

The study revealed a wealth of other data concerning employment, salary trends, and professional opportunities for both men and women.

The second study surveyed these same university alumni to ascertain how many of them had been in the employ of the government since graduation, and the relationship between their university training and their work in government service. This study was made by Professor Lloyd M. Short and Mr. Gordon O. Pehrson.

Of the 5,835 alumni who returned questionnaires, 30.7 per cent of the men and 44.5 per cent of the women were at that time employed by some agency of government, while 10.6 per cent of the men and 21.6 per cent of the women had been previously so employed. Thus it will be seen that at one time or another 41.3 per cent of the men, and 66.1 per cent of the women, found employment in the government service. The higher proportion of women reflects the large number of graduates from the Colleges of Education, and of Agriculture, Forestry, and Home Economics.

The trend of employment of college graduates clearly reflects the expansion in national and state service during the depression years. The largest number of graduates entered the government service from the classes of 1932 and 1933.

The local governments provided the greatest number of positions, most of them in educational agencies. If positions involving teaching, research, or educational administration are excluded, the largest number of positions was with the federal government, followed by the state and local governments. The widest range of opportunity was also in federal government positions. At all levels salaries showed wide variations, and did not increase much, even for public employees with nine years of public service behind them.

HOUSING OF STUDENTS

During the biennium 1936-38, the Committee on Educational Research sponsored a study of the scholarship of students living under different housing conditions. Although no statistically significant differences were found among the various groups, the committee called attention to the following trends which were observed:

1. Students living at the college dormitories earned higher honor point ratios than those living elsewhere.
2. Students living at home ranked second, being lower than the students living at the college dormitories by a very narrow margin.
3. Students living at fraternities and sororities ranked third.
4. Students living at private residences ranked lowest.

Should further studies reveal a continuance of the above trends, the high honor point ratios earned by dormitory students could be explained as due partly at least to the high quality of living conditions found in the dormitories.

UNIVERSITY LIFE

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UNIVERSITY LIFE

THE UNIVERSITY AS A TYPICAL INSTITUTION

The University received commendable attention during the second year of the biennium as the result of a series of articles written by John R. Tunis, nationally known magazine writer and author. The articles, which appeared in *Redbook Magazine* during the winter of 1939-40, were prepared in an attempt to answer the question asked each year by the bewildered parents of a million and a half boys and girls: To what college should we send our son or daughter? Subsequently the articles were reissued in book form under the title *Choosing a College*.

The state university was one of six typical institutions of higher learning discussed by Mr. Tunis, and he chose the University of Minnesota as his example because it is, he says, "certainly one of the best of its kind in the United States." His article in the March, 1940, issue (*Redbook Magazine*) is devoted to the University of Minnesota, and illustrated with campus pictures. As a result of his visits to its campus and a study of its publications, he was able to state that "College officers are usually overworked, but you can be sure nevertheless of a cordial welcome. They (Minnesota college officers) are only too happy to see parents and prospective students who are interested enough to visit their institution."

Mr. Tunis found that "Minnesota makes a conscientious and well-planned attempt to keep the individual from dropping out of sight." Another important element of superiority was revealed when he said, "You'll observe immediately that the boys and girls have an attitude toward education which isn't always found in the East."

His final tribute, and one which reflects credit not only on the University of Minnesota, but on every citizen of the state from the time of the founding fathers to the present, is that ". . . Minnesota has its roots deep in the soil of the Northwest . . . It is a democratic institution, living and visible proof that in at least one field of human endeavor democracy succeeds."

And there should be some satisfaction in this observation by Mr. Tunis: "There are good state universities and poor ones, just as there are good private universities and poor ones. Minnesota is a good one. And my conviction is that dollar for dollar, the taxpayer of the United States gets more for his money here than anywhere else in the public domain." (*Redbook Magazine*, March, 1940, page 93.)

OF HISTORICAL INTEREST

During the biennium the Board of Regents took a number of actions that are of historical interest. On May 9, 1939, an official seal was adopted as the corporate seal of the corporation. Miss Jean Hirsch de-

signed and adapted this from an older seal. An impression of the newly adopted seal follows:



An historian for the University was authorized by the Regents on June 17, 1939. The president was given the power to make the necessary arrangements, if and when funds are available, and a suitable person is found.

The official founding date of the University is now definitely set as February 25, 1851. This was decided by the Regents on October 14, 1939. Although the first college classes were not held until 1869, it was by the Laws of 1851 that the University was established and its government vested in a Board of Regents, and these laws have constituted the charter under which the University has since been governed.

The corporate name of the University is now "Regents of the University of Minnesota." The Regents approved this name on November 4, 1939.

Although old gold and maroon are the traditional colors of the University, it was not until March 8, 1940, that, by action of the Regents, they were officially so recognized, and applied to the official seal.

SEMICENTENNIAL OF THE MEDICAL SCHOOL

The original charter of the University authorized the organization of a medical department. Actually no steps toward this were taken until 1882 and students were not enrolled in the Department of Medicine until the fall of 1888. The first appropriation for a medical building was made by the 1891 Legislature. The year 1937-38 marked the completion of the school's first fifty years. A program commemorating this semicentennial was held October 12, 13, and 14, 1939.

The occasion was used as an opportunity to bring together a distinguished group of scholars and contributors to medical science in several fields, and the technical discussions were organized under the general theme, "Some Trends in Medical Progress with Particular Reference to Chemistry in Medicine." The program was referred to by a science editor of a leading New York paper as "the outstanding scientific event of the year."

The evening session on October 12, presided over by Dr. Harold S. Diehl, dean of the Medical Sciences, was planned especially with the interests of the general public in mind. The speakers and their topics were: Governor Harold E. Stassen, "Medicine and the Commonwealth"; President Guy Stanton Ford, "The Place of Medicine in a University"; and Dr. Anton J. Carlson, professor and chairman of the Department of Physiology, University of Chicago, "The Role of the Fundamental Sciences in Medical Progress."

At the anniversary banquet on Friday, October 14, the following program was presented: "The Medical School in Retrospect and Pros-

pect," Dr. Harold S. Diehl; "The Medical School from the Point of View of the Alumni," Dr. Olaf J. Hagen; and "Graduate Medical Education," Dr. Donald C. Balfour, director of the Mayo Foundation for Medical Education and Research. Distinguished service awards of the Minnesota State Medical Association were presented posthumously to Dr. William J. Mayo, Dr. Charles H. Mayo, and Dr. Herman M. Johnson. The program concluded with a discussion on "The Progress of Medical Education in America" by Dr. Richard E. Scammon, distinguished service professor in the Graduate School. The banquet program also included the presentation to the University of the Minnesota Medical Foundation. In the absence of Dr. Erling Platou, president of the foundation, the announcement was made by Dr. Jennings C. Litzenberg, professor emeritus of obstetrics and gynecology. A description of this foundation will be found on page 91 of this report.

At the university convocation on October 12, an address of interest to the general public was given by Dr. Thomas Parran, Jr., surgeon-general of the United State Public Health Service, "Medical Education, Research, and the Public Health."

In addition to staff members of the University of Minnesota and to speakers mentioned previously, the celebration brought to the campus among other guests, Dr. Herbert S. Gasser, director of the Rockefeller Institute for Medical Research; Dr. Perrin H. Long of Johns Hopkins University, one of America's outstanding research workers on sulfanilimide; Dr. Walter B. Cannon of Harvard University; Dr. Charles H. Best, professor of physiology at the University of Toronto, and co-discoverer of insulin; Dr. John P. Peters of Yale University; Professor George H. Whipple, University of Rochester; Professor Michael Heidelberger, Columbia University; Professor Detlev W. Bronk, University of Pennsylvania.

The scientific papers delivered at this anniversary celebration have been published by the University of Minnesota Press in a volume entitled: *Chemistry and Medicine*. In reviewing this the *Lancet* (London, England) says:

There could be no more eloquent testimony to the value of chemistry than the volume of papers presented at the fiftieth anniversary of the founding of the medical school of the University of Minnesota. Under the editorship of Prof. Maurice B. Visscher reviews are published on physical chemistry in medicine, investigations in metabolism, aspects of immunity and chemotherapy, and the nervous control of the organism. The writers are men who have earned recognition as researchers, and they present their own work in proper perspective against a background of selected literature. Dr. Johnson said that the only book that ever took him out of bed two hours sooner than he wished to rise was Burton's *Anatomy of Melancholy*; this is another such book. It will make an instant appeal to clinical scientists who have a bias towards physiological chemistry, but the neurologist and the bacteriologist will also find here a number of fascinating papers.

SEMICENTENNIAL OF THE SCHOOL OF DENTISTRY

In 1888 the University established a department of medicine which provided training for the dental profession as well as for medicine and surgery. For five years prior to that time there had been a dental department in the Minnesota College Hospital, a medical school located in Minneapolis and sponsored by a group of prominent physicians and

surgeons. The year 1937-38, therefore, was the fiftieth year of dental training at the University. The celebration of this semicentennial took place October 19 and 20, 1939.

The first session was devoted to papers on the various dental research projects under way at the University of Minnesota. In the evening the Golden Jubilee banquet was held. President Guy Stanton Ford served as toastmaster and the principal address was by Dr. William J. Gies of New York City, "Dentistry—Its Development and Progress in Health Service." The guest of honor at the banquet was Dr. Arthur H. Merritt of New York City, president of the American Dental Association.

The morning session on October 20 was given over to a symposium on periodontia. At noon a special feature of the alumni luncheon was an illustrated history of the School of Dentistry given by Dean W. F. Lasby. In the afternoon the official program closed with sectional meetings held on four important areas of dental science. The papers read at the anniversary sessions have been published as a University of Minnesota Bulletin (Vol. XLIII, No. 47, July 24, 1940).

SEMICENTENNIAL OF THE SCHOOL OF AGRICULTURE

The Central School of Agriculture observed its fiftieth anniversary on March 20, 21, and 22, 1939. This unit, located on the Farm campus in St. Paul, enrolls five hundred students and is part of the University's Department of Agriculture. It is the first school of its kind in the United States, and, since its establishment, has served more than 20,000 different individuals. A high light of the celebration was the March commencement address by Governor Harold E. Stassen.

Entrance requirements of the school include one year of actual farm experience and an eighth grade education; students must be seventeen years of age unless they have completed at least two years of high school. A three-year course is required for graduation from the school, although each semester of three months is a separate unit, and a student may enroll for only one semester if he chooses. This, and the other three schools of agriculture, are primarily concerned with training young men and women who will return to Minnesota farms, and one measure of the success of the program is that a large percentage of the graduates are now living on the farms of this state.

SCIENTIFIC AND PROFESSIONAL MEETINGS

During the biennium the University was privileged to serve as host for numerous scientific, professional, and educational groups. As in the past, most of these were state groups but there were also national and regional groups as well. Such gatherings benefit the institution and the state by bringing to the campus leading scholars in their several fields. Consequently the University is pleased to co-operate by extending its facilities and by making every effort to insure the success of the meetings. Among the groups entertained during the biennium were the American Society of Agricultural Engineers, the Association of College Unions, the Central States Speech Association, and the Geological Society of America.

The American Society of Agricultural Engineers.—The American Society of Agricultural Engineers held its thirty-third annual meeting at University Farm, June 19, 20, 21, and 22, 1939. Twelve years previously, at the society's twenty-first annual meeting in June, 1927, the Division of Agricultural Engineering of the University had been host at the same location. The 1939 attendance totaled 531 persons. Thirty-four states of the United States, the District of Columbia, and four provinces of Canada were represented.

The program consisted of three general sessions in which nine addresses were given, including those of Deans W. C. Coffey, S. C. Lind, and E. M. Freeman, of the University of Minnesota, and Dr. H. G. Knight, chief, Bureau of Chemistry and Soils, United States Department of Agriculture; twenty sessions of the separate divisions of soil and water conservation, farm structures, rural electric, and power and machinery, in which sixty papers were presented; four symposia in which twenty-five brief formal contributions were presented; and three round-table discussions. Two afternoons were devoted to trips of inspection to plants, and activities of especial interest to agricultural engineers.

The Association of College Unions.—The Nineteenth Annual Conference of the Association of College Unions was held at the University of Minnesota on December 1, 2, and 3, 1938. The conference was planned and directed by the officers of the association: G. R. Higgins, manager of the Minnesota Union, president; P. B. Hartenstein, director of Houston Hall, University of Pennsylvania, secretary and treasurer; Porter Butts, director of the Wisconsin Union, editor; and Lloyd Vallery, director of the Purdue Union, former president. Attendance totaled 115 delegates, representing 33 colleges and universities. In addition to student officers of governing boards, the delegates included 46 directors and union staff members, a dean of men, and a dean of women.

The program consisted of three formal addresses and six sectional discussion meetings. The addresses, given by members of the university faculty, were "Should College Unions Be Abolished?" by Dr. Malcolm S. MacLean; "Cultural Programs and the Union," by Dean Malcolm M. Willey; and "A Comparison of English and American Unions," by Professor Herbert Heaton. The sectional discussion meetings were devoted to the following topics: "The Use of the Union by Others Than Students," "Co-ordination of Social Activities in Colleges," "Hobby and Handicraft Programs," "New Union Building Plans and Campaigns," "How To Enlist Student Participation in Union Activities," and "Student Meetings."

The Association of College Unions was formed in 1920 "to provide a medium through which its members may co-operate in advancing their common interests and to encourage and assist in the organization of Unions in colleges and universities." Student union organizations, however, had existed in the United States since 1895 when the first one was established at the University of Pennsylvania. At the conference it was announced that 56 of the 72 existing student union organizations in colleges and universities in the United States held membership in the association. The three major functions of the association

are: conducting an annual conference at which its members may discuss their mutual problems; publishing a quarterly bulletin of news and information relative to student unions and their activities; and provision, through the secretary, of all information relative to union organizations and giving of all possible assistance to institutions in the development of new union organizations.

The Central States Speech Association.—The Central States Speech Association was held in Minneapolis April 14 and 15, 1939, under the sponsorship of the Department of Speech of the University of Minnesota. Headquarters for the meeting were down town, with sessions both there and on the University campus. A total of 372 official registrations from the thirteen states included in the association were recorded.

There were twenty-five formal programs and a number of general discussion sessions. The speech arts (public speaking, reading, the theater) and speech science (psychology of speech, voice science, speech pathology) were included among the topics under discussion. There were also demonstrations of clinical and general educational procedures. Speakers were drawn not only from the Department of Speech but also from such other university units as the College of Science, Literature, and the Arts, the College of Education, the Medical School, and the Department of Electrical Engineering.

The Geological Society of America.—The University was host to the Geological Society of America, December 28, 29, and 30, 1939. Three associated societies, the Mineralogical Society, the Paleontological Society, and the Society of Economic Geologists, met in conjunction with the Geological Society.

Other colleges and geological organizations in Minnesota joined with the Department of Geology at the University in extending an invitation to the geologists. These included Carleton College, Macalester College, the Minnesota Academy of Science, the St. Paul Science Institute, the Minnesota Section of the Institute of Mining and Metallurgical Engineers, the E. J. Longyear Company of Minneapolis, the Geological Society of Minnesota, and the Minneapolis Chamber of Commerce.

The members and friends of the society were welcomed by the University and the Northwest by Regent Fred B. Snyder, chairman of the Board of Regents.

The 650 scientists who gathered to report on the progress of geology in all of its many phases represented many sections of the United States and Canada. Of these representatives, Canada sent 38: the District of Columbia, 20; Texas, 24; New York, 31; Massachusetts, 20; California, 10; and Illinois, 53. About 70 visiting ladies were registered also. The interest in geology in Minnesota was reflected by the attendance of 190 guests from the Twin Cities, and 45 from beyond the metropolitan area.

The position of geology at Minnesota is indicated by the fact that the University of Minnesota is one of the first ten institutions represented by its graduates in the membership of the Geological Society, having in all 40 members who took their work in this University. The society was organized in 1888, and last year passed its fiftieth anniversary.

sary. The membership has grown from an original of 112 to about 750 (out of nearly 3,000 recognized geologists in North America). The secretary of the society is Dr. C. P. Berkey of Columbia University, one of the most distinguished alumni of the University of Minnesota, and the first man to receive the degree of doctor of philosophy in geology from Minnesota.

The presidential address was delivered by Dr. T. Wayland Vaughan, retired president of the Scripps Institution at La Jolla, California, who spoke on "Ecology in Modern Marine Organisms with Reference to Paleogeography." The retiring president of the Paleontological Society, Dr. R. W. Chaney, spoke on "Tertiary Forests and Continental History," and Dr. E. S. Moore of Toronto, Canada, retiring president of the Society of Economic Geologists, addressed a joint assembly of the societies on "Genetic Relations of Gold Deposits and Igneous Rocks in the Canadian Shield."

Approximately 125 papers were presented before the various societies and six addresses were broadcast to the radio audiences of the Northwest. The University radio station WLB took part in the broadcasts by giving its listeners a very timely address on "Geology and Strategy in Warfare," by Dr. Douglas Johnson of Columbia University.

Dr. Eliot Blackwelder of Stanford University was elected president of the society for 1940, and Dr. William Berryman Scott of Princeton was granted the Penrose Medal.

For distribution to members of the Geological Society of America, the Geology Department of the University had prepared a pamphlet describing the geology of the Minneapolis-St. Paul area, for which most of the data were taken from the reports of the State Geological Survey.

STUDENT CONFERENCES ON CONTEMPORARY PROBLEMS

In the 1934-36 biennial report President Coffman urged the need of educational conferences, so organized as "to facilitate intelligent, unbiased, and unemotional consideration of the problems associated with far-reaching social changes." As an outgrowth of this suggestion, two student-faculty conferences were held during the 1936-38 biennium. (*President's Report, 1936-1938*, pages 102-104).

The success of these conferences stimulated similar ones during the 1938-40 biennium. One was held April 17, 18, 19, and 20, 1939, on the topic "Labor Today." As in previous years, it was a project of the students of the University through a special committee of their governing body, the All-University Council, in co-operation with the university faculty and administration.

Attendance at the afternoon sessions ranged from 200 to 600, and at the three evening sessions, from 500 to 1,000 in the face of discouraging weather. The concluding convocation session, drew about 2,000. Some of the sessions were broadcast.

The subjects and speakers of the 1939 sessions follow:

"The Ingredients of the Problem"—Herbert Heaton, Professor of Economic History, University of Minnesota

"What the Public Thinks of Labor and What Labor Thinks of Its Job"—Elmo C. Roper, Public Opinion Expert, who does the research for the *Fortune* "Survey of Public Opinion"

"The Civil Rights of Labor"—Roger N. Baldwin, Director, American Civil Liberties Union

"Labor—and Employers' Rights"—Noel Sargent, Secretary, National Association of Manufacturers

"Can Labor Be United?"—Mark Starr, Educational Director, International Ladies' Garment Workers' Union; George W. Lawson, Secretary-Treasurer, Minnesota State Federation of Labor; and Joe Van Nordstrand, President, Minnesota State C.I.O.

"The American Farmer and the Labor Movement"—Allan Kline, Vice-President, Iowa State Farm Bureau Federation

"Labor and the Government"—William Leiserson, Chairman, National Media Board

"The Political Future of Labor"—Peter H. Odegard, Professor of Political Science, Amherst College

The 1940 conference was held April 15, 16, 17, and 18, 1940, and was built around the subject, "Democracy Today and Tomorrow." The European situation made the topic an especially fitting one. The purpose and sponsorship remained the same as in previous conferences. However, in accordance with a recommendation of the previous committee, an executive committee of seven students, in addition to the student chairman, was in charge of preliminary planning. The opening session drew approximately 200. The two afternoon sessions had audiences of 200 and 250, respectively. The attendance at the three evening sessions was 350, 800, and 1,000. Approximately 2,700 attended the final convocation session. Two of the sessions were broadcast, and in addition, interviews with speakers and with committee members were carried by two radio stations. Commenting upon the program, the student chairman of the committee wrote:

The committee, basing its views on subsequent comments and stimulated discussion, feels more than ever that the topic chosen and the hundreds of people participating in the Conference more than justified the time, effort, and money involved. . . . We believe that this project has become and will continue to become an educational factor of our University. The student committee must, of course, be interested, capable, and energetic; their faculty advisors must be vitally interested in the project; and the speakers chosen must be experts in the field and capable of presenting an intelligent, challenging, and provocative point of view. If these aims are achieved each time, the annual Conference can surely become one of the most worthy projects in which individual students take an active and leading part.

The subjects and speakers of the 1940 conference follow:

"Defining Democracy"—Benjamin Lippincott, Associate Professor of Political Science, University of Minnesota

"Streamlining Democracy—Needed Government Changes"—Karl Loewenstein, Department of Political Science, Amherst College

"Propaganda in a Democracy"—William Gellermann, School of Education, Northwestern University

"The Protection of Democracy"—Harold Lasswell, Washington School of Psychiatry

"Education in a Democracy"—Harold Benjamin, Dean, College of Education, University of Maryland

"The Place of Planning in a Democracy"—Oskar Lange, Professor of Economics, University of Chicago; John Ise, Professor of Economics, University of Kansas; and Arthur W. Marget, Professor of Economics, University of Minnesota

"The International Dilemma of Democracies"—Samuel Guy Inman, Professor of Political Science, University of Pennsylvania

During the first year of the biennium, March 10 and 11, 1939, a conference on "Peace or War in the Far East" was held. This was organized and conducted by the All-University Peace Council, with the assistance of the International Relations Committee and the collaboration of the American Council of the Institute of Pacific Relations.

The Peace Council introduced an innovation into conference procedure in organizing the round tables. In addition to university students, students from Twin City high schools as well as thirty civic leaders interested in international affairs, accepted invitations to participate.

CONVOICATIONS

Each Thursday morning throughout the academic year, classes are suspended to permit students to attend convocation exercises in Northrop Memorial Auditorium. At the convocations, speakers of distinction are introduced to the student body. The programs are carefully planned, so that during the course of the year there will be a balanced representation of subject matter and points of view. Attendance is large, rarely dropping below 2,000; and in addition, there is a radio audience (WLB). The speakers and subjects during the biennium follow:

1938-39

Opening convocation: For the first time in many years the opening convocation was omitted because of the death of President Coffman

October 6: John Erskine, Novelist-Musician, "Moving Pictures As an Art Form"

October 13: Thomas Wilfred, President, Art Institute of Light, New York, lecture-recital with the Clavilux color organ

October 20: Ralph D. Casey, Chairman of the Department of Journalism, University of Minnesota, "Public Opinion in Great Britain"

October 27: Elliott S. Humphrey, Vice President, The Seeing-Eye, Morristown, New Jersey, "Training the Seeing-Eye Dogs"

November 3: The Reverend John Haynes Holmes, Pastor of the Community Church of New York, "Prophets of Doom—Are They Right or Wrong?"

November 17: Sheldon Cheney, Author and Art Critic, "The Art of the Theater in Modern Times"

November 21: Student assembly for football awards: Frank McCormick, Athletic Director, "Athletics at Minnesota"; Bernie Bierman, Head Football Coach, "Review of the Season"; Walter C. Coffey, Dean and Director of the Department of Agriculture, "Conferring of M's and Other Awards"

December 1: Right Honorable Margaret Bondfield, National Officer of the National Union of General and Municipal Workers, formerly British Minister of Labor, "Labor and World Peace"

December 6: Julien Bryan, Traveler and Photographer, "Inside Nazi Germany" (Illustrated)

December 15: Fall quarter commencement exercises: Homer P. Rainey, Director, American Youth Commission, "Education for a Potential Age of Plenty"

January 5: Padraic Colum, Irish Poet-Dramatist, "Contemporary Poetry"

January 12: Captain John D. Craig, Deep-Sea Photographer and Author, "Diving among Sea Killers" (Illustrated)

January 19: Grant Wood, Artist, "Regional Art"

January 26: Clyde Fisher, Curator-in-chief of the Hayden Planetarium of the American Museum of Natural History, "Eclipse Hunting" (Illustrated)

February 2: S. K. Ratcliffe, Correspondent, *London Spectator*, "Can Europe Be Saved?"

February 9: The Honorable Harold E. Stassen, Governor of the State of Minnesota, "Opportunities in Public Service for the Graduate of 1939"

February 16: Charter Day convocation: Clarence A. Dykstra, President, University of Wisconsin, "The University and the Commonwealth"

February 23: Roosevelt Walker, Professor of English, University of Georgia, "Songs of Shakespeare's Time"

March 2: Carleton Beals, Author and Lecturer, "The Coming Struggle for Latin America"

March 9: Raymond L. Ditmars, Curator, New York Zoological Park, "Strange Animals I Have Known" (Illustrated with motion pictures)

March 23: Winter quarter commencement exercises: Dixon Ryan Fox, President of Union College, Schenectady, New York, "On Educating Whole Men"

April 6: Mary Ellen Chase, Professor of English Literature, Smith College, "The More Intelligent Reading of Fiction"

April 13: George Boas, Professor of the History of Philosophy, Johns Hopkins University, "Towards a History of Taste"

April 20: Peter H. Odegard, Professor of Political Science, Amherst College, "The Political Future of Labor"

May 4: Thirty Years of Service convocation, honoring those members of the university staff who had served the institution for thirty years or more. Members on the honor roll were seated on the platform, a short address was made by the president of the University, and the roll was called by Dean Edward M. Freeman, one of the oldest in point of service. A feature of the program was the participation of students in a style revue showing costumes worn in ten-year intervals from 1869 to the present year.

May 11: Cap and Gown Day convocation: Donald Lampland, President of the All-University Senior Class, "Presentation of the Class of 1939"; Guy Stanton Ford, President of the University, "Response"

June 11: Baccalaureate service: The Reverend Frederick May Eliot, President of the American Unitarian Association, delivered the baccalaureate sermon.

June 17: Commencement exercises: Guy Stanton Ford, President of the University, "Charge to the Class."

June 22: John Harvey Furbay, Lecturer, "Liberia—Africa's Last Negro State" (Illustrated)

June 29: Clarence W. Sorenson, News Commentator and Lecturer, "Propaganda in the News" (Illustrated)

July 6: C. T. Albrecht, Explorer and Lecturer, "By Caravan through the Lost Kingdom" (Illustrated)

July 13: John Claire Monteith, Lecturer, "Deserts of the Southwest" (Illustrated)

July 20: Amory Waite, Lecturer (Radio Operator on Byrd's Expedition) "With Admiral Byrd at Little America" (Illustrated)

July 27: Commencement exercises: E. C. Sellery, Dean of the College of Letters and Science, University of Wisconsin

August 3: H. Canfield Cook, Traveler and Lecturer, "America Flies" (Illustrated)

August 10: Drew Pearson, News Analyst, "Washington Merry-Go-Round"

1939-40

October 5: Opening convocation: Guy Stanton Ford, President of the University of Minnesota, "Address of Welcome"

October 12: Dr. Thomas Parran, Jr., Surgeon General, United States Public Health Service, "Medical Education and Research and the Public Health"

October 19: Mai-Mai Sze, Lecturer, "China in Focus"

October 26: Sir Hubert Wilkins, Explorer, "Twenty Years of Exploration" (Illustrated with motion pictures)

November 2: Ernest K. Lindley, Chief of the Washington Bureau for *Newsweek*, "Covering Washington Today"

November 9: E. B. Hitchcock, Journalist, "Perpetual Crisis"

November 16: Ted Shawn, "The Dance"

November 23: Robert Dell, European News Correspondent, "Personalities in European Diplomacy"

November 28: Student Assembly for Football Awards: Frank McCormick, Athletic Director, "Athletics at Minnesota"; Bernie Bierman, Head Football

Coach, "Review of the Season"; Guy Stanton Ford, President of the University, "Conferring of M's and Other Awards"

December 7: Langdon W. Post, President, American Federation of Housing Authorities, "Government's Place in Our Housing Problem"

December 21: Fall quarter commencement convocation: Eugene A. Gilmore, President, State University of Iowa, "The Collegiate's Social Responsibilities"

January 4: Thomas Hart Benton, Artist, "Art and American Art"

January 11: Major George Fielding Eliot, Military Expert and Author, "The Ramparts We Watch"

January 25: Max Lerner, Professor of Political Science, Williams College, "Ideas Are Weapons"

February 1: Bernard H. Ridder, Publisher, *St. Paul Dispatch-Pioneer Press*, "How the Peace of the World Was Lost"

February 8: Margaret Culkin Banning, Author, "Public and Private Opinion"

February 15: Paul Engle, Poet, "The Poetry of Modern Life"

February 29: Vera Brittain, Author, "Youth and War"

March 7: Dr. Vernon D. E. Smith, "Big Game Hunting in the Canadian Rocky Mountains with Camera and Gun" (Illustrated with motion pictures in color)

March 14: H. R. Knickerbocker, International News Service Correspondent, "At the Ringside of History"

March 21: Winter quarter commencement convocation: Henry Noble MacCracken, President, Vassar College, "Of Human Intercourse"

April 4: Louis Fischer, Special European Correspondent of *The Nation*, "The Real Issues in Europe's War"

April 11: John Jacob Niles, Student of American Folk Music, "Songs of the Southern Mountains"

April 18: Samuel Guy Inman, Professor of Political Science, University of Pennsylvania, "The International Dilemma of Democracies"

April 25: Oswald Garrison Villard, Editor and Author, "What I Saw and Heard in Germany"

May 2: Music convocation: University Symphony Orchestra and Olin Downes, Pianist

May 9: Sydney R. Montague, Writer and Lecturer, "Under Northern Lights"

May 16: Cap and Gown Day convocation: Robert E. McDonald, President of the All-University Senior Class, "Presentation of the Class of 1940"; Guy Stanton Ford, President of the University, "Response"

June 9: Baccalaureate service: The Reverend John Walker Powell, Lecturer in English Literature, "The Spiritual Dynamic." This address was a fitting valedictory from a Minnesota alumnus of the Class of 1893, who at this time severed a university association that extended through a period of fifty years.

June 15: Commencement exercises: Guy Stanton Ford, President of the University, "Charge to the Class"

June 20: Wilfrid Laurier Husband, Traveler and Lecturer, "What Next in the Far East?" (Illustrated)

June 27: Will Durant, Philosopher and Historian, "The World Conflict"

July 11: Russell Wright, News Photographer and Lecturer, "Poland Crushed" (Illustrated)

July 18: Leila M. Blomfield, Economist and Lecturer, "America Faces Its Destiny"

July 25: Commencement exercises: Frank L. McVey, President of the University of Kentucky

August 1: Will Irwin, Author and Lecturer, "Propaganda in the News"

August 8: Anson Brown, Photographer and Lecturer, "The Caribbean" (Illustrated)

August 15: Sydney Montague, Writer and Lecturer, "North to Adventure"

August 22: Norman Blodgett Holmes, Lecturer, "Europe Sunny-Side Up" (Illustrated)

SPECIAL EVENING CONVOCATIONS

In addition to the Thursday morning convocations, a series of evening lectures was inaugurated during the biennium, designed to bring to the campus distinguished guests whose appearance could not be provided on the regular budget. For these evening lectures, a small admission was charged, with the understanding that any profits would be used exclusively for bringing further guests. The innovation proved successful, and attracted large audiences from the student body, from the other colleges of the state, and from the Twin City area high schools. The speakers were as follows:

May 19, 1939: Dr. Eduard Benes, former President of Czechoslovakia, "Is European Democracy Going to Collapse?"

November 16, 1939: Ted Shawn and his dance group, in a dance recital

February 15, 1940: Dr. Thomas Mann, Author and Nobel Prize Winner, "The Problem of Freedom."

A recording of Dr. Mann's lecture won a special award for the university radio station WLB at the Institute for Education by Radio, held at the Ohio State University, Columbus, in April, 1940.

SPECIAL UNIVERSITY LECTURES

In addition to the convocation series, the president's office, usually in co-operation with one or more of the departments, sponsors occasional all-university lectures. In general, the appeal of these is more limited, and the audiences more highly selected. Treatment of the topics discussed tends to be more specialized. These lectures, however, do make it possible to have distinguished scholars and creative workers meet with groups who may be especially interested in a given field. Through these contacts the intellectual life of the campus is greatly stimulated. This is indicated from the list of guest speakers during the past biennium:

1938-39

FALL QUARTER

October 4: William Hodson, Commissioner of Public Welfare, New York City "Public Welfare Administration"

October 19: Harold T. Stearns, Geologist in charge of Hawaiian Ground-Water Investigations, United States Geological Survey, "The Recent Eruption of Mauna Loa Volcano, Hawaii"

November 7: Edward R. Murrow, European Director, Columbia Broadcasting System, "How Radio Covered the Czech Crisis"

November 16: Kurt Lewin, Professor of Child Psychology, State University of Iowa, "Experiments in Social Space"

November 25 and 26: W. J. Cochran, Statistician of the Rothamsted Experimental Station, England, "The Concept of 'Information' in Statistics" and "The Use of Transformations in the Statistical Analysis of Data"

November 30: Dr. Dorothea Ilse, German Zoologist, "The Color Sense of Insects"

December 5: Lewis L. Lorwin, Economist and Author, "The Aims and Activities of the International Labor Organization"

December 5 and 6: Dr. Thomas Dossing, Director of the Danish Public Library System, "The National Library System of Denmark" and "The Danish Adult Education System"

WINTER QUARTER

January 9: Michael A. Heilperin, Assistant Professor of International Economic Relations, Graduate Institute of International Studies, Geneva, "International Monetary Stabilization"

- January 13: Werner Richter, German Prose Writer and Lecturer, "Conditions in Germany"
- January 13: Walter Stanley Campbell, Professor of Anthropology, University of Oklahoma, "The American Indian"
- January 27: Bertrand Russell, Philosopher, "The Philosophy of Power"
- January 29: Dr. Gerhart Husserl began a series of six lectures, five in the Law School and one in the Department of Philosophy
- February 3: Madame Maurice Muret, Professor of History, Barnard College, "Current Franco-Italian Problems"
- February 9: Barclay Acheson, Associate Editor of the *Readers' Digest*, "Freedom—the Mental Climate for Progress"
- February 9 and 10: H. S. Ede, former Curator, Tate Gallery, London, "Henry Gautier Brzeska" and "The Tate Gallery—Foreign School"
- February 10: Irving Levorsen, Geologist, "Some Frontiers of Petroleum Geology"
- February 15: Dr. Gosta Moberg, Swedish Explorer, "The Tauregs of the Sahara: the World's Most Interesting Nomads"
- February 17: John N. Hazard, Current World Affairs Committee, Chicago, "Soviet Law and the Family"
- March 2: A. A. Allen, Professor of Ornithology, Cornell University, Ithaca, "Hunting with a Microphone"
- March 17: Mildred Boie, Assistant Editor, the *Atlantic Monthly*, "Forty Thousand Manuscripts"

SPRING QUARTER

- April 5: Seamus O'Duillearga, Director, University of Dublin Irish Folklore Commission, "Irish Folk Tales"
- April 5: Dr. Richard Alewyn, Former Professor of German Literature, University of Heidelberg, "Die Geburt des Romanlesers"
- April 6: Carl F. Voegelin, Professor of Anthropology, DePauw University, "American Indian Languages"
- April 21: Wendell C. Bennett, Associate Professor of Anthropology, University of Wisconsin, "Ancient Civilizations of Peru"
- May 2 and 3: William Ivor Jennings, Reader in English Law, University of London, "The British Dominions and the European Crisis" and "The British Cabinet System and the European Crisis"
- May 3: Karl Bühler, Formerly Professor of Psychology, University of Vienna, "The Orientation of Organisms in Time and Space"
- May 17: Frank Bane, Executive Director of the Council of State Governments, Chicago, "Interstate Trade Barriers"
- May 19: Arthur Burkhard, "Form in German and Italian Art"
- June 1: Ragini Devi, Indian Dancer, lecture-recital

1939-40

FALL QUARTER

- October 23: Dr. Edvard Hambro, Head, International Section of Chr. Michelsen Institute, Bergen, Norway, "The Small States in World Politics"
- October 30: Lawrence M. Judd, Former Governor of Hawaii, "Hawaii—Pivot of the Pacific"
- November 15: John C. Johansen, Portrait Painter, "Lecture-Demonstration of Portrait Painting"
- November 24: Herbert Feigl, Professor of Philosophy, University of Iowa, "Are There Riddles of the Universe?"
- December 5: Martin P. Nilsson, Former Rektor of University of Lund, Sweden, "Legalism and Superstition"
- December 7: Dr. Gaetano Salvemini, Lecturer at Harvard, "Two Conflicting Philosophies"
- December 8: Dr. Gaetano Salvemini, "The Pros and Cons of Democracy"
- December 11: Dr. Gaetano Salvemini, "Political and Economic Democracy"
- January 31: Samuel H. Cross, Chief, Slavic Division, Harvard University, "Russia: Menace or False Alarm"
- February 5: Antonin Raymond, Architect, "Modern Architecture"

February 14: Joaquin Ortega, Professor of Spanish, University of Wisconsin, "The Spanish Gypsies: Their Music and Their Art"

February 19: Leonard D. White, Professor of Public Administration, University of Chicago, "Government Service and the University Graduate"

February 26: Oscar T. Broneer, Archeologist, Princeton University, "Corinth in the Time of St. Paul"

March 12: O. C. B. Wev, United States Coast Guard, "The United States Coast Guard Academy"

SPRING QUARTER

April 5: Murray B. Emeneau, Anthropologist, Yale University, "The Main-springs of Modern Life in India"

April 5: James W. Thompson, Professor Emeritus, University of California, "Charlemagne and Italian Culture"

April 8: James W. Thompson, "The Cultural Relations Between Italy and Germany"

April 10: James W. Thompson, "The Cultural Relations Between Italy and France"

April 12: James W. Thompson, "The Cultural Relations Between France and Germany"

April 15: James W. Thompson, "The Cultural Relations Between France and England"

April 17: James W. Thompson, "The Cultural Relations of England with Germany and Italy"

April 9: Theodore M. Greene, Princeton University, "Principles of Artistic and Literary Criticism"

April 10: F. A. Firestone, Professor of Physics, University of Michigan, "Tricks with Speech and Song"

April 10: Louis Brownlow, Director, Public Administration Clearing House, Chicago, "The Setting and Approach to the Problem"

April 11: Louis Brownlow, "Objectives of the President's Committee"

April 12: Louis Brownlow: "Results and Probable Future"

April 15: John C. Johansen, Portrait Painter, "Demonstration of Portrait Painting"

April 22: Tom Jones, Assistant Professor of History, University of Minnesota, "Contemporary Trends in South American Government"

April 24: Chester Lloyd Jones, University of Wisconsin, "Latin-America and the War"

April 26: Emilio C. LeFort, Assistant Professor of Romance Languages, University of Minnesota, "Anti-Imperialism in Hispanic-American Literature"

April 29: Ben M. Cherrington, Chief, Division of Cultural Relations, Department of State, Washington, D.C., "Pan-Americanism Today"

April 26: Dr. Thomas Greenwood, University of London, "Contemporary British Philosophy"

May 1: Dr. H. E. Enthoven, Lecturer in Diplomatic History, Holland, "The Peace Efforts of the World War"

May 3: Dr. H. E. Enthoven, "Holland Between the Great Powers"

May 17: Dr. Emanuel Winternitz, Formerly of the University of Vienna, "Palladio and Palestrina—Architecture and Music As Reflecting the Spirit of a Period"

May 21: Dr. Gunnar Westin, University of Upsala, Sweden, "The Scandinavian Countries in the Present Crisis"

THE SIGMA XI SERIES

Since 1928 Sigma Xi, honorary scientific society, has presented an annual series of popular lectures on scientific subjects. All lectures are by members of the university staff. In 1939 the general topic was "Man and His House" with these speakers:

February 3: Roy Jones, "Everyman's House"

February 10: Frank B. Rowley, "Housing and Climate"

February 17: Robert Jones, "Housing and the Expanding City"

February 24: Frederic Bass, "The High Cost of Housing"

The speakers in 1940 discussed "Recent Developments in Medical Science":

February 2: Dr. Wesley W. Spink, "Sulfanilamide and Related Chemicals in the Treatment of Infectious Diseases"

February 9: Dr. J. Charnley McKinley, "The Problem of Poliomyelitis"

February 16: Dr. Robert G. Green, "Viruses—the Microscopically Invisible Agents of Disease"

February 23: Dr. Leo Rigler, X-Rays in the Diagnosis and Treatment of Disease"

UNIVERSITY CONCERT AND DRAMA COURSES

Symphony.—During the season 1938-39 the University presented the eighth annual series of University Symphony Concerts by the Minneapolis Symphony Orchestra. All concerts of the season were given under the direction of the orchestra's conductor, Dimitri Mitropoulos. The winter's schedule included the usual series of sixteen evening subscription concerts, three afternoon Young People's Concerts (for the public, private, and parochial schools of the Twin Cities and suburbs), three special afternoon concerts for students of the University, two extra concerts with the Ballet Russe de Monte Carlo, and one extra Sunday afternoon concert with Madame Kirsten Flagstad, making a total of twenty-five public concerts during the season. The orchestra also presented a series of twenty-four Sunday morning radio programs broadcast over five Twin City radio stations and other stations throughout the state. Distinguished guest artists appearing with the orchestra included John Charles Thomas, Albert Spalding, Serge Rachmaninoff, Paul Alt-house, Mischa Elman, Artur Schnabel, Gaspar Cassado, Dalies Frantz, Kirsten Flagstad, and the Ballet Russe de Monte Carlo.

For the second year of the biennium, season 1939-40, the regular subscription series was increased to eighteen concerts, in addition to which there were three afternoon Young People's concerts, four afternoon concerts for university students, three extra concerts with noted artists, one extra performance of the Beethoven Ninth Symphony, and two extra performances with the Ballet Russe de Monte Carlo, making a total of thirty-one public concerts. The orchestra also presented a series of fifteen Sunday morning radio concerts which were broadcast by the university radio station WLB and a group of other stations in the Twin Cities and throughout the state. Noted guest artists appearing with the orchestra during the winter included Serge Rachmaninoff, Yehudi Menuhin, Gladys Swarthout, Rudolf Serkin, Dr. Egon Petri, Nathan Milstein, Robert Virovai, Lawrence Tibbett, Robert Casadesu, Nino Martini, St. Olaf Lutheran Choir, and the Ballet Russe de Monte Carlo. The season was brought to a brilliant close with two performances of the Beethoven Ninth Symphony given by the orchestra with a chorus of three hundred voices and four soloists—Rosa Tentoni, Lillian Knowles, Ernest McChesney, and David Blair McClosky.

University Artists Course.—During 1938-39 the University Artists Course, under the direction of Mrs. Carlyle Scott, presented Beniamino Gigli, Erica Morini, Myra Hess, Marian Anderson, the Eva Jessye Choir, and a joint recital with Adolph Busch and Rudolf Serkin. In 1939-40, the artists were Fritz Kreisler, Donald Dickson, Alec Templeton, Argentinita and her Spanish ensemble, Vladimir Horowitz, and Kirsten Flagstad.

Bach Society.—The Bach Society of the University is a group of seventy-five Twin City singers devoted to the performance of the works of Johann Sebastian Bach. Since its foundation in 1933 the society has presented each spring a program of Bach works, under the direction of Professor Donald Ferguson. In the spring of 1940 the program developed into a Bach Festival, the first such festival ever to be held in Minnesota. In this the society was assisted by the Collegium Musicum, Professor Abe Pepinsky, conductor; and by Professor Arthur B. Jennings, university organist. The four-part program extending through a week, included "The Passion of Our Lord According to St. John" and the "Mass in B Minor." This ambitious undertaking received high critical acclaim.

The University Theatre.—During the biennium the University Theatre has presented the following major productions:

1938-39

Father Malachy's Miracle
The Guardsman
Johnny Johnson

Peter Pan
It Can't Happen Here
Cyrano de Bergerac

1939 Summer Season

Night Must Fall
Candlelight

Bury the Dead

Studio Theatre, 1938-39

Martine
Sueno
Die Kleinen Verwandten

Der Tote Mann
King Against the Gods
About 60 one-act plays

1939-40

Our Town
Inspector General
The Bluebird
Susan and God

Little Women
Rip van Winkle
The Star Wagon
Romeo and Juliet

1940 Summer Season

Romeo and Juliet
Holiday

The Emperor's New Clothes
He Met a Mermaid

Studio Theatre, 1939-40

La Prenez Garde à la Peinture
Der Bieberpelz
Los Interes Creados

Her Master's Voice
About 60 one-act plays

SPECIAL OCCASIONS

Court of Honor.—As in previous years, the Court of Honor, sponsored by the Minneapolis Civic and Commerce Association, the Minneapolis Junior Association of Commerce, and the Council of Civic Clubs, was held each spring. Guests are 150 senior honor students from the various colleges of the University. At the dinner on June 8, 1939, the address was by Mr. Jay C. Hormel, Austin, Minnesota; the response for the seniors was by Robert E. Hillard, editor of the *Minnesota Daily*, 1938-39. In 1940 (June 4) the speaker was Mr. L. F. Living-

ston, manager of the Agricultural Extension Division of the E. I. du Pont de Nemours and Co., Wilmington, Delaware. President Guy Stanton Ford spoke briefly; the student response was by Emily Farnum.

MUSIC APPRECIATION

In many ways students at the University of Minnesota, as well as other members of the university community and the state at large, are given unusual opportunities to develop a higher degree of appreciation for good music.

Northrop Memorial Auditorium on the campus has for ten years served as the home of the Minneapolis Symphony Orchestra. This famous musical organization presents a regular winter series of eighteen concerts in addition to extra concerts not only on the campus but in downtown Minneapolis and St. Paul. There are special low rates for students so as to bring the concerts within the means of as large a campus group as possible. The orchestra also presents special series of concerts for school children and for students.

For some years the Minneapolis Symphony Orchestra presented a series of Sunday morning half-hour radio concerts. The programs originated with WLB, the university radio station, and have been broadcast also by a network of stations so as to reach as wide an area as possible.

Each season an Artists Course of six numbers is presented by the University in Northrop Memorial Auditorium. This series brings to the campus and makes available to the university community and the general public, outstanding musical performers, both vocal and instrumental.

Every Thursday morning during the academic year, the university organist gives a half-hour recital in Northrop Memorial Auditorium preceding the regular weekly convocation. The numbers played are selected from the works of great composers whose compositions are best adapted to organ presentation.

Much has been done in the past in connection with the activities of the student Union. Twice each week at the noon period two hours are devoted to the presentation of fine music. A member of the staff of the General College is in charge of the hour and he selects the programs which are presented by means of recordings taken from the General College recording library. The General College Music Laboratory is the source from which are drawn the program notes that accompany each composition. This listening hour began in January, 1938.

The Union has a library of 175 records which students may borrow without charge for as long a period as five days. The lending library is open three days a week for two hours each day. This service began in January, 1939, and almost from the very beginning the demands of borrowers have exceeded the available supply of records.

With the opening of Coffman Memorial Union in the fall of 1940, the opportunities for hearing good music are being greatly expanded. The building is equipped with a centralized sound system, and loudspeakers are located in all of the lounges, game rooms, public eating places, and the Fine Arts Room. The centralized sound system makes

it possible to distribute to any or all rooms equipped with loudspeakers either radio programs or recorded music. Whenever radio programs of high grade music are available, they are presented over the system. Such programs are frequently supplemented by the use of recordings. Since the opening of Coffman Memorial Union the regular semi-weekly noon listening hours have been presented to capacity audiences in the Fine Arts Room which seats 150 persons.

Another activity at the Union is the musical program consisting of live talent presented for an hour each Sunday afternoon. Organists, pianists, string quartets, and other musical groups are featured. Another series presents the University Band. In previous years four or five band concerts have been given in the main lounge, but with the improved facilities now available, these programs are being expanded and will be presented in the new ballroom.

Opportunities both for participation and appreciation are provided under the auspices of the Department of Music. There are three organizations of a choral nature; the University Chorus, Northrop Singers, and the Bach Society. Instrumental organizations include the Collegium Musicum, the University Symphony Orchestra, and the chamber music classes. In addition, 500 different students each year are given instruction in music appreciation in classes designed for students not majoring in music.

The work in music appreciation carried on in the General College is especially noteworthy. There is a regular class, "Music Today," which is a year's course and enrolls 200 students. The same course is offered also as a two-semester extension class with an enrolment of 75 persons. Then there is the Music Laboratory which is open a total of sixteen hours each week from Monday through Saturday to anyone on the campus. In addition, the laboratory is open for two hours on one night each week for any student registered in the Extension Division. It has a seating capacity of 65 and its operation and supervision are taken care of by 9 student assistants.

The Music Laboratory contains an unusually fine selection of recordings totaling 2,000 titles, ranging from short numbers recorded on a single disc to longer works requiring 6, 8, 10, or even as many as 38 records. It has files of all the leading periodicals in the music field, all of the best books on music and the related arts, a complete collection of operatic scores, and a clipping file kept constantly up to date. Competent advice for guidance in the purchase of records, phonographs, and radios is available. The assembling of the necessary data for this service is made possible through the assistance rendered by two NYA students. The 2,000 titles of recorded musical works are all cross-indexed so as to enable students to select the numbers they wish to have played. Thus musical numbers selected by the students are being played constantly during the regular hours when the Music Laboratory is open. Special appointment hours are arranged frequently in the late afternoon after 4:30 to meet individual requests for the longer works.

All of the work in music appreciation carried on in the General College is tied in and correlated, wherever possible, with musical events on the campus, in downtown Minneapolis and St. Paul, and on the radio. Attention is called orally to unusual listening opportunities, and

notices of musical events of all sorts are distributed and posted on the bulletin boards so as to attract as wide an interest as possible.

The university radio station WLB renders a very considerable service to a large part of the state in devoting approximately twenty hours each week to making available every type of worth-while music. Although program offerings range from the more important musical works to light music in which the rhythmic and melodic elements predominate, it has been found neither necessary nor desirable to present popular music of the "jazz" and "swing" varieties.

For ten years a weekly course in music appreciation has been broadcast. The course is supplemented by a free listener's manual. It is the oldest regular series of educational broadcasts originated by any Minnesota radio station. Although some sections of the course have become standardized, for the most part the subject matter has been changed each year and entirely different musical examples are used each season. The 1940-41 series which began on September 26, consists of 38 weekly half-hour lessons presented on Thursday mornings at eleven o'clock. This music appreciation series has the endorsement of the Radio Committee of the Minnesota Education Association and of the State Department of Education. Thus it is suitable for use in junior and senior high schools as well as for adult listeners. There is evidence that this program has a large listening audience.

On the instructional side there is also a radio band clinic presented during the second semester each year to assist high school bands especially in preparing the year's contest numbers.

WLB presents five or six hours each week of programs by WPA musical groups—the Minnesota Symphony Orchestra, the Minnesota Symphonic Band, the Jubilee Singers, and occasional solo and chamber music appearances by musicians drawn from these groups.

Since the spring of 1940, WLB has broadcast the NBC Damrosch Music Appreciation Hour as well as a number of other important non-commercial network programs. Actual checks show that during a typical week WLB originates far more programs of first-class studio music than does any other Twin City radio station.

The balance of WLB's musical programs consists of the presentation of recordings. Listeners now realize that recorded music is just as modern and scientific as radio itself. When the same care is devoted to its presentation as to a studio program, as good or even better results are achieved. The recorded programs presented by WLB have met with marked success because they are planned by musicians who make use of an elaborate system of indexing, programming, and broadcasting which has been developed.

USE OF CHAPEL BY RELIGIOUS GROUPS

The Center for Continuation Study contains a small chapel which serves equally well for instructional purposes in connection with the activities at the Center and for religious or semi-religious uses. Several weddings, of students or staff members, have been solemnized there.

During the past biennium the chapel has been used increasingly by various denominational groups in connection with the work which

they carry on among the students of the University. The record of chapel use is as follows:

The Christian Science organization held about twenty-four midweek meetings during each year of the biennium. The Newman Foundation held Sunday services each week during the winter and spring quarters, 1940. The League of Evangelical Students, beginning in the spring quarter, 1939, and continuing through the academic year, 1939-40, held occasional midweek meetings. The Lutheran Students Association held midweek meetings during the 1940 Lenten season. A conference of Lutheran teachers of religion of the Augustana Synod was held in December, 1939. There were also occasional meetings by other campus religious groups, both Christian and Jewish.

The increased utilization of the chapel facilities, which was in evidence as the biennium closed, has continued subsequent to that time. With the 1940 fall quarter well under way prior to the printing of this report, four religious organizations are making regular use of the chapel; midweek meetings are being held by the Christian Scientists and the League of Evangelical Students, and Catholic and Lutheran services are held on Sundays.

ACTIVITIES RELATING TO THE STAFF

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ACTIVITIES RELATING TO THE STAFF

PRESIDENT'S FACULTY LETTER

With the growth in size of the University and consequent increase in numbers of the faculty, it becomes more and more difficult for the president to maintain close contact with individual staff members and to provide them with information concerning university affairs that is of interest and concern to them. It is likewise difficult for staff members to learn the basis upon which policies that affect them have been initiated. To meet this situation, during the second year of the biennium the president inaugurated a new communication, sent to all members of the teaching staff, "A Personal Letter from the President." This printed document, over the president's signature, contained information about Regents' actions and other matters of general significance and about which faculty members need to be authoritatively informed. The letter also serves a purpose in providing staff members with background that enables them to answer the many questions concerning the University that are constantly raised in the course of public contacts.

The president's letter was not intended for regular release. It appears when matters of importance have accumulated. Three issues were distributed during the year: December 19, 1939; January 29, 1940; and April 25, 1940.

HEALTH OF THE ACADEMIC STAFF

During the biennium the illness of several members of the academic staff gave considerable concern to the administrative officers and the Board of Regents. There are stresses and strains relating to academic positions that the public at large may not fully appreciate or understand. Discussion of these by the president with the Administrative Committee of the Senate, and with the Board of Regents, centered largely around the possibility of protecting both the University and the staff members from illnesses and breakdowns. Consideration was given to the possibility of introducing some form of physical examination. The Administrative Committee in 1939-40 voted to approve, in principle, such a proposal, and authorized the president to appoint a special committee to study the problem and the details that would be involved. Members of the nonacademic staff are now required to take physical examinations at the time of employment, and before major promotions. Likewise, part of the registration procedure for every entering student is a physical examination. The president has now appointed the special committee and a report should be forthcoming during the first year of the new biennium.

GROUP HOSPITALIZATION SERVICE

In the 1936-38 biennial report details were given of a plan to provide group hospitalization for faculty and employees of the University. This plan was approved by the Regents on April 20, 1938, and went

into effect on September 16, 1938. The direction which such a project needs especially in the beginning is achieved through a faculty advisory committee. The committee members are: Raymond M. Amberg, Wallace V. Blomquist, Wilbur H. Cherry, John O. Christianson, and William T. Middlebrook. During the first year the membership consisted of 1,141 male and 840 female faculty and employee members, with 636 male and 1,453 female dependents (all figures reduced to full-year participation basis). Receipts for the year were \$20,145.70, and the balance above claims and administrative expenditures was \$4,084.75. As a result of the successful operation of the plan during the first year, the Board of Regents on September 15, 1939, approved indefinite continuation of the hospitalization service subject only to the requirement of an annual report.

SCHOLARSHIPS FOR NONACADEMIC EMPLOYEES

The Board of Regents on November 25, 1939, authorized the creation of tuition scholarships for members of the nonacademic staff. Ten scholarships were awarded for each of the last two quarters of the academic year, 1939-40. By action of the Regents, the number of scholarships available during the years 1940-41 and 1941-42 was increased to fifteen. Provision was made for a review of the program at the close of the year 1941-42.

Recipients of the scholarships may carry up to six credits of class work in any one quarter and will not be subject to salary deductions. Members of the nonacademic staff employed in offices with regular hours, and not the recipients of scholarships, are subject to salary deduction depending upon the amount of university class work they carry, if the class work is taken during office hours.

The Regents' tuition scholarships are awarded for one academic quarter, and the holders may not be appointed for more than three consecutive quarters. The plan is administered by the Committee on Classification of Nonacademic Personnel.

The plan should prove mutually beneficial to the nonacademic staff members and to the University. Staff members will be able to supplement their backgrounds and perform their university functions with greater efficiency. Furthermore, the additional training—which in itself brings satisfactions—will also make possible the personal development that opens the way to promotions within the service.

The University profits whenever a staff member increases his efficiency or his skills by additional training or education. The University has long recognized this with the academic staff. Up through the rank of instructor its members are encouraged to enroll in university classes, to progress toward a degree, and exemption from tuition is provided under conditions established by the Board of Regents.

The new scholarships for nonacademic staff members are to be regarded as a reward for faithful service to the University, as well as an opportunity for in-service training of those younger men and women who in the years to come will be advanced to greater responsibilities within the university organization. By adopting the plan, the Board of

Regents, for an experimental period, has extended to carefully selected members of the nonacademic staff the privileges enjoyed by members of the academic staff.

NONACADEMIC EMPLOYMENT

During the last year of the biennium, two actions of the Board of Regents related specifically to the employment of members of the nonacademic staff. The first, approved on March 8, 1940, limits appointments to the nonacademic staff to citizens of the United States. This action was taken in the belief that in so far as situations are parallel, the University in its rules and regulations governing nonacademic employees should conform as closely as possible to the regulations affecting other employees of the state. The new regulation reads as follows:

All appointments to positions in the nonacademic service shall be limited to qualified applicants who are citizens of the United States and who have been residents of Minnesota for two years immediately preceding the date of application, with the following exceptions:

(1) Appointments to positions in the nonacademic service requiring professional, technical, or unusual qualifications may be opened to residents of other states who are citizens of the United States and who are otherwise qualified, in the absence of qualified Minnesota applicants.

(2) Appointments of students to positions in the nonacademic service requiring half-time service or less shall not be restricted by residence status.

The other action, on May 10, 1940, approved for the summer of 1940, the five-day work week which was in effect during the months of July and August in 1938 and 1939. The text follows:

The Regents direct that during the months of July and August the University be closed on Saturday except in those departments responsible for room or food service, for the care of livestock, for the care of hospital patients, or other similar departments where some degree of continuous operation is essential. In these departments where complete Saturday closing is not possible, the working schedule of employees on the regular payroll or who are regularly employed on the miscellaneous payroll on an annual or monthly basis should be so adjusted that any working time required of them on Saturday will be balanced by equivalent time off on another day of the week.

MILITARY LEAVES OF ABSENCE

The request for leaves of absence for two university staff members for military service made it advisable for the Board of Regents to establish a policy to govern future cases of a similar nature. On September 15, 1939, the Board decided to follow closely the law which applies to other state employees and adopted the following provisions:

All full-time officers and employees of the University of Minnesota entitled to vacation leave who shall be members of the National Guard or of the Officers Reserve Corps of the United States shall be entitled to a military leave of absence from their respective duties without loss of pay, status, vacation, or efficiency rating, on all days during which they shall be engaged in drills or parades during business hours ordered by proper authority or for field or coast-defense training or active service ordered or authorized under the provisions of state or federal law, or active duty ordered or authorized by state law; provided such leave of absence shall not exceed fourteen days in any calendar year.

On July 19, 1940, subsequent to the close of the biennium but prior to the printing of this report, the Board of Regents amended the

previous action, to extend the privileges of military leaves to part-time, and other employees, and to sanction leaves without pay to any period up to one year. The text of the amended regulation follows:

All officers and employees of the University of Minnesota employed full-time during the academic or fiscal year who shall be members of the National Guard or of the Officers Reserve Corps of the United States shall be entitled to a military leave of absence from their respective duties without loss of pay, status, vacation or efficiency rating, on all days during which they shall be engaged in drills or parades during business hours ordered by proper authority or for field or coast-defense training or active service ordered or authorized under the provisions of state or federal law, or active duty ordered or authorized by state law; provided such leave of absence shall not exceed fourteen days in any calendar year, which policy closely accords with that established by Section 8, Chapter 175, Laws of 1939, amending Section 2425, Minnesota Statutes of 1927.

Further military leaves of absence up to a period of one year may be granted without pay to such officers and employees.

Part-time and other officers and employees may be granted military leaves of absence without pay for any period up to one year.

RETIREMENT FOR BANKHEAD-JONES FUND EMPLOYEES

Since 1935, employees paid from Bankhead-Jones funds have been designated as temporary employees and were ineligible for the State Employees Retirement Association. The fund, which provides over \$200,000 per year for agricultural extension, has now continued for a sufficiently long time to be looked upon as a part of the permanent federal program. As a consequence the Board of Regents on October 21, 1939, voted to designate employees of the University paid from Bankhead-Jones funds as regular employees, effective November 1, 1939.

UNIVERSITY PERSONNEL

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UNIVERSITY PERSONNEL

CHANGES IN THE BOARD OF REGENTS

On July 28, 1939, Dr. William J. Mayo died. At that time he was the oldest member of the board in point of service. On August 2, 1939, Governor Harold E. Stassen appointed Albert J. Lobb of Rochester, secretary of the Mayo Properties Association, to fill the vacancy caused by Dr. Mayo's death. The term expires with the 1941 session of the Legislature.

On January 9, 1939, Lewis E. Lohmann, St. Paul, resigned as a member of the board, and on January 11, 1939, Benjamin DuBois, Sauk Centre, also resigned. Their terms of office would normally have expired with the 1939 legislative session. In addition there were seven other members of the board whose terms expired at the same time: George W. Lawson, St. Paul; George B. Leonard, Minneapolis; Frank W. Murphy, Wheaton; Dr. A. E. Olson, Duluth; Martin M. Olson, Clitherall; O. M. Peterson, Albert Lea; and Ray J. Quinlivan, St Cloud.

On February 7, 1939, the Legislature reappointed Regents Lawson and Quinlivan for terms ending in 1945, and also appointed the following seven members, with terms to expire in the years indicated:

James Ford Bell, Wayzata, 1945	A. J. Olson, Renville, 1943
Daniel C. Gainey, Owatonna, 1943	Dr. F. J. Rogstad, Detroit Lakes, 1943
Richard L. Griggs, Duluth, 1945	Sheldon V. Wood, Minneapolis, 1941
Dr. E. E. Novak, New Prague, 1943	

RETIREMENTS FROM THE STAFF

Each year some members of the faculty reach the age of compulsory retirement, and thus bring to a close long periods of active association with the University. Recognition of this service is given by a special certificate, signed by the president, and sent to each retiring faculty member. This reads:

University of Minnesota
to
(name)

In recognition of your long and distinguished service to the University of Minnesota and to the State, the Senate of the University, the President, and the Board of Regents present this certificate and express their gratitude, esteem, and affection. Your name is already on the roll of honor of those who as teachers and administrators have contributed to the development of a great University, have enriched the lives of countless students and through them the life of the Commonwealth. You have served the University notably and well as

(Here follows the list of positions held by the individual on the university staff.)

Staff members who retired during the biennium were:

1938-39

William Ellsworth Brooke

Instructor in mathematics	1901-1905
Assistant professor of mathematics	1905-1907
Professor of mathematics	1907-1912
Professor and head of Department of Mathematics and Mechanics	1912-1939
Assistant dean during second semester	1916-1917
Acting dean	May 1-July 31, 1917

William McKean McClintock	
Instructor in mathematics and mechanics.....	1918-1921
Assistant professor of mathematics and mechanics.....	1921-1939
Andrew Adin Stomberg	
Professor of Scandinavian languages.....	1907-1939
James Milton Walls	
Student instructor (without salary).....	1893-1894
Assistant instructor (without salary).....	1894-1896
Instructor in charge of operative technic.....	1901-1907
Clinical professor of operative dentistry.....	1907-1911
Professor of operative dentistry.....	1911-1913
Professor and head of the Department of Operative Dentistry.....	1913-1939

1939-40

John Alfred Cederstrom	
Laboratory assistant, Department of Animal Biology.....	1917-1921
Instructor in zoology.....	1921-1940
James Frank Corbett	
Assistant professor of surgical pathology.....	1908-1911
Associate professor of experimental surgery.....	1911-1919
Associate professor of surgery.....	1919-1937
Clinical professor of surgery.....	1937-1940
Hans H. Dalaker	
Assistant in mathematics, College of Science, Literature, and the Arts.....	1901-1902
Instructor in mathematics.....	1902-1908
Assistant professor of mathematics.....	1908-1909
Assistant professor of mathematics, College of Engineering.....	1909-1921
Associate professor of mathematics and mechanics, College of Engineering and Architecture.....	1921-1923
Professor of mathematics and mechanics.....	1923-1936
Professor of mathematics, Institute of Technology.....	1936-1939
Professor of mathematics and head of the Department of Mathematics and Mechanics and of the Department of Drawing and Descriptive Geometry.....	1939-1940
Theodore August Erickson	
Member of Farmers' Institute.....	1912-1913
Rural school specialist—state club leader.....	1913-1915
Assistant professor of agricultural education and state club leader.....	1915-1919
Associate professor of agricultural education and state club leader.....	1919-1940
Roger Sherman Mackintosh	
Farm worker in horticulture.....	1893-1896
Assistant in horticulture, Agricultural Experiment Station.....	1896-1903
Extension horticulturist.....	1913-1915
Assistant professor.....	1915-1920
Assistant professor, horticulture specialist.....	1920-1926
Assistant professor, exhibits specialist.....	1926-1940
John Walker Powell	
Director, religious work.....	1912-1914
Lecturer, General Extension Division.....	1927-1940
Albert Beebe White	
Instructor in history.....	1899-1900
Assistant professor of history.....	1900-1907
Professor of history.....	1907-1940

CHANGES IN THE FACULTIES

RESIGNATIONS, 1938-39

- Hugh Cabot, professor of surgery, Mayo Foundation, effective June 30, 1939. Retired and moved to Massachusetts.
- Oliver P. Field, professor of political science, effective at close of 1938-39, to accept position at Indiana University.
- Arthur S. Hamilton, professor of medicine, effective July 1, 1939, on account of health.
- Julian G. Leach, professor of plant pathology and botany, effective October 1, 1938, to accept position as head of the Department of Plant Pathology at University of West Virginia, Morgantown, West Virginia.
- Jesse F. McClendon, professor of physiology, effective at close of 1938-39, to accept position as research professor of physiology at Hahnemann Medical College at Philadelphia, Pennsylvania.
- Lieutenant Colonel Adam E. Potts, professor of military science and tactics, effective at close of 1938-39, for foreign duty in Hawaii.
- Ellet M. deBerry, mental hygienist, Students' Health Service, and associate professor in Departments of Medicine and Preventive Medicine and Public Health, effective at close of 1938-39, to retire from field of psychiatry and direct Sleepy Hollow Ranch at Eldorado, Texas.
- Alexander R. Hall, clinical associate professor of medicine, effective September 16, 1938, to devote all his time to his private practice.
- George F. Lusky, associate professor, Department of German, effective June 16, 1939, to accept position as head of the Department of German at University of Oregon.
- Richard S. Maybury, associate professor, School of Dentistry, effective June 16, 1939.
- David M. Robb, associate professor of fine arts, effective June 16, 1939, to accept position at University of Pennsylvania.
- Ernest Angelo, assistant professor of horticulture, effective November 1, 1938, to accept position with Bureau of Plant Industry, United States Department of Agriculture, Bogalusa, Louisiana.
- Hubert P. Beck, assistant professor and assistant director, General College (transferred to University High School as an instructor), effective July 1, 1939.
- Clarence L. Cole, assistant professor, North Central School and Experiment Station, effective September 1, 1938, to accept position as assistant professor of animal husbandry at Michigan State College, East Lansing, Michigan.
- William H. Condit, assistant professor of obstetrics and gynecology, effective September 1, 1938.
- Ray Faulkner, assistant professor of art education, effective June 16, 1939, to accept position at Columbia University.
- Elizabeth G. Gardiner, assistant professor of sociology, effective February 1, 1939, to accept position with National Society for Prevention of Blindness, New York City.
- Pearle Haas, assistant professor, General College, effective December 16, 1938.
- Frank L. Jennings, clinical assistant professor of medicine, effective November 1, 1938, to accept position as director of Sunnyside Sanatorium at Indianapolis, Indiana.
- Franklin H. Knowler, assistant professor, Department of Speech, effective at close of 1938-39, to accept position at University of Iowa, Iowa City, Iowa.
- M. Lois Reid, assistant professor with rank of extension specialist in clothing, agricultural extension, effective September 1, 1938. Marriage.
- Landon A. Sarver, assistant professor of analytical chemistry, effective June 16, 1939.
- Alfred C. Voegelé, assistant professor, Northwest School and Experiment Station, effective June 1, 1939, to accept position with Sherwin Williams Company.
- Dwight L. Wilbur, assistant professor, Mayo Foundation, effective at close of 1938-39, to enter private practice in Los Angeles, California.

RESIGNATIONS, 1939-40

- George Glockler, professor of chemistry, effective June 15, 1940, to accept position as head of the Department of Chemistry at the University of Iowa, Iowa City, Iowa.

- Malcolm S. MacLean, director and professor, General College, effective at close of 1939-40, to accept position as president of Hampton Institute, Hampton, Virginia.
- Margaret G. Arnstein, associate professor and supervisor of public health nursing, effective at close of 1939-40, to accept position with New York State Department of Health.
- Howard W. Barlow, associate professor of aeronautical engineering, effective at close of 1939-40, to accept position as head of the Department of Aeronautical Engineering at Texas Agricultural and Mechanical College, College Station, Texas.
- Richard Hartshorne, associate professor of geography, effective June 15, 1940, to accept position as associate professor of geography at University of Wisconsin, Madison, Wisconsin.
- Robert S. Hilpert, associate professor of art education, effective June 15, 1940, to accept position in Art Department of University of California, Los Angeles, California.
- Iver Johnson, associate professor of agronomy and plant genetics, effective December 31, 1939, to accept position as professor of farm crops at Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa.
- Ivol Spafford, associate professor of eugenics, General College, effective June 15, 1940, because of expiration of General Education Board grant.
- Richard S. Ahrens, clinical assistant professor of medicine, effective February 15, 1940, to enter medical practice at Rapid City, South Dakota.
- Alan J. Bailey, assistant professor of forestry, effective September 30, 1939.
- Claude R. Baker, assistant professor of dentistry, effective June 15, 1940, to accept position as associate professor of dentistry at Indiana University, Indianapolis, Indiana.
- Kenneth H. Baker, assistant professor of psychology, effective June 15, 1940, to accept position as assistant professor of psychology at Ohio State University, Columbus, Ohio.
- Herbert A. Carlson, clinical assistant professor of surgery, effective January 1, 1940, to accept position at Minot Clinic, Minot, North Dakota.
- Lyle A. Churchill, assistant professor-state county agent leader agricultural extension, effective January 15, 1940, to accept position with Nicollet County Hybrid Corn Growers' Association.
- Elmer A. Clark, assistant professor at the Northwest School and Experiment Station, effective May 31, 1940, to accept position as associate seed technologist, United States Department of Agriculture Federal State Seed Laboratory at Lafayette, Indiana.
- Charles F. Code, assistant professor of physiology, effective June 15, 1940, to accept position with Mayo Clinic.
- Ole Givold, assistant professor, College of Pharmacy, effective June 30, 1940.
- Helen B. Larmore, assistant professor-extension specialist in clothing, Agricultural Extension, effective November 15, 1939. Marriage.
- Jesse H. Neal, assistant professor of agricultural engineering, effective October 15, 1939, to accept position as professor and head of agricultural engineering at Alabama Polytechnic Institute at Auburn, Alabama.
- Naboth O. Pearce, clinical assistant professor of pediatrics, effective November 30, 1939, to practice medicine in Miami, Florida.
- Marvin C. Rogers, assistant professor of chemistry, effective at close of 1939-40, to accept position with Riverside Press in Chicago, Illinois.
- William J. Routledge, assistant professor of rhetoric, Department of Agriculture, effective at close of 1939-40, because of ill-health.
- Russell I. Thackrey, assistant professor of journalism, effective June 15, 1940, to accept headship of industrial journalism at Kansas State College, Manhattan, Kansas.
- James W. Thornton, acting assistant director and assistant professor, General College, effective at close of 1939-40, to return to his former position with Sequoia Union High School, Redwood City, California.
- Bernard A. Watson, physician in Students' Health Service, and assistant professor of preventive medicine and public health, effective April 30, 1940, to accept position with Battle Creek, Michigan, Clinic.

- Gregoire F. Amyot, professorial lecturer, preventive medicine and public health, effective December 31, 1939, to accept position as provincial health officer of British Columbia, Canada.
- Edward T. Tinker, professorial lecturer, School of Dentistry, effective September 16, 1939, because of ill-health.

APPOINTMENTS, 1938-39

Professors

- Nelson L. Bossing as professor, College of Education, beginning December 16, 1938
B.A. 1917, Kansas Wesleyan University; B.D. 1921, Garrett Biblical Institute (Evanston, Ill.); M.A. 1922, Northwestern University; Ph.D. 1925, University of Chicago.
- Eric K. Clarke as professor of psychiatry and of pediatrics and director of the Children's Psychiatric Clinic, beginning September 16, 1938
M.B. 1916, University of Toronto.
- William F. Geddes as professor of agricultural biochemistry, beginning December 1, 1938
B.S.A. 1918, M.A. 1925, University of Toronto; M.S. 1928, Ph.D. 1929, University of Minnesota.
- Francis E. Harrington as clinical professor of preventive medicine and public health
B.Sc. 1900, LL.D. 1911, Gonzaga College (Washington, D.C.); M.D. 1904, Columbian College (now George Washington University).
- John L. McKelvey as professor and head, Department of Obstetrics and Gynecology, beginning September 1, 1938
B.A. 1923, M.D.C.M. 1926, Queen's University.
- Dimitri Mitropoulos as professor of music beginning with the year 1938-39

Associate Professors

- Charles R. Burnham as associate professor of agronomy and plant genetics beginning September 1, 1938
B.A. 1924, M.S. 1925, Ph.D. 1929, University of Wisconsin.
- Walter W. Cook as associate professor, College of Education, beginning September 16, 1938
B.A. 1923, M.A. 1926, Ph.D. 1931, State University of Iowa.
- Ruth E. Eckert as associate professor, General College, beginning September 1, 1938
B.A. *cum laude* 1930, M.A. 1932, University of Buffalo; Ed.D. 1937, Harvard University.
- Gerald T. Evans as associate professor of medicine and director of chemical and metabolic laboratories, University of Minnesota Hospitals, beginning May 1, 1939
M.D.C.M. 1932, M.S. Med. 1923, McGill Medical School; Ph.D. Med. 1937, University of Pennsylvania.
- Arthur B. Jennings as associate professor of music beginning September 16, 1938
A.A.O.G.¹ 1909, conferred by authority of New York State Board of Regents.
- Robert E. Summers as associate professor of mechanical engineering beginning with the year 1938-39
B.S. Mech. Eng. 1924, M.S. Chem. Eng. 1933, Oregon State College.

Assistant Professors

- John Bardeen as assistant professor of physics for 1938-39
B.S. 1928, M.S. 1929, University of Wisconsin; Ph.D. 1936, Princeton University.
- Hubert P. Beck as assistant professor and assistant director, General College, for 1938-39
B.A. *magna cum laude* 1929, Harvard College; M.A. 1931, University of Chicago.
- Walter B. Cline as assistant professor of anthropology for 1938-39
B.A. *magna cum laude* 1926, Harvard College; M.A. 1933, Ph.D. 1936, Harvard University.
- Alfred B. Cummins as assistant professor, School of Business Administration, for 1938-39
B.S. in M.E. 1931, J.D. 1936, M.A. in M.E. 1938, State University of Iowa.
- Watson Dickerman as assistant professor and program director, General Extension Division, beginning September 1, 1938
B.A. 1928, Dartmouth College; M.A. 1937, University of Chicago.
- George F. Ekstrom as assistant professor of agricultural education, College of Education, for 1938-39
B.S. 1930, Purdue University; M.S. 1933, Iowa State College; Ph.D. 1938, Ohio State University.
- Pearle Haas as assistant professor, General College, for 1938-39
B.A. 1930, Southwestern College (Winfield, Kansas); M.S. 1933, Kansas State College.

¹ Associate of American Guild of Organists

Edwin L. Haislet as assistant professor of physical education and athletics for 1938-39

B.S. 1931, University of Minnesota; M.A. 1933, New York University.

Helen B. Larmore as extension specialist in clothing with rank of assistant professor in agricultural extension from September 12, 1938 to June 30, 1939

B.A. 1928, University of Illinois; M.S. 1937, University of Minnesota.

Alfred O. C. Nier as assistant professor of physics for 1938-39

B.E.E. 1931, M.S. E.E. 1933, Ph.D. 1936, University of Minnesota.

Theodore A. Olson as assistant professor of preventive medicine and public health from September 16, 1938 to June 30, 1939

B.S. 1926, University of Minnesota; M.A. 1937, Harvard University.

Laurence E. Schmeckebier as assistant professor, Department of Fine Arts, for 1938-39

B.A. 1927, University of Wisconsin; Ph.D. 1930, University of Munich, Germany.

George J. Stigler as assistant professor, School of Business Administration, for 1938-39

B.B.A. *magna cum laude* 1931, University of Washington; M.B.A. 1932, Northwestern University; Ph.D. 1938, University of Chicago.

Professorial Lecturer

Konstantin Reichardt as professorial lecturer, Department of German, for 1938-39
Ph.D. 1927, University of Berlin.

Exchange Lecturer

Frederick K. Teichmann as exchange lecturer with New York University, Department of Aeronautical Engineering, for 1938-39

Aero.E. 1928, New York University; M.M.E. 1935, Polytechnic Institute of Brooklyn.

APPOINTMENTS, 1939-40

Professors

Royal N. Chapman as dean of the Graduate School and professor of ecology, beginning July 1, 1939

B.A. 1914, M.A. 1915, University of Minnesota; Ph.D. 1917, Cornell University.

Lieutenant Colonel Charles A. French as professor of military science and tactics, beginning September 1, 1939

B.S. 1911, Oregon Agricultural College.

James Hart as professor of political science for the winter quarter of 1939-40

B.A. 1918, M.A. 1919, University of Virginia; Ph.D. 1923, Johns Hopkins University.

Captain Frank H. Kelley as professor of naval science and tactics for 1939-40
United States Naval Academy, Annapolis, 1910.

Frederick L. Nussbaum as professor of history for 1939-40

B.A. 1903, Cornell University; Ph.D. 1915, University of Pennsylvania.

Associate Professors

Theodore Brameld as associate professor, College of Education, beginning September 16, 1939

B.A. 1926, Ripon College; Ph.D. 1931, University of Chicago.

Adelbert L. Dippel as associate professor of obstetrics and gynecology, beginning March 1, 1940

B.A. 1920, M.A. 1924, M.D. 1928, University of Texas.

Robert O. Meyer as clinical associate professor of obstetrics and gynecology, beginning July 1, 1939

M.D. 1889, University of Strassburg.

Assistant Professors

Margaret L. Brew as assistant professor of home economics for 1939-40

Ph.B. 1926, M.S. 1935, University of Chicago.

Josephine E. Collins as assistant professor, General College, for 1939-40

B.S. 1933, Cornell University; M.S. 1939, State University of Iowa.

Alrik Gustafson as assistant professor, Department of Scandinavian, for 1939-40

Ph.B. 1925, Ph.D. 1935, University of Chicago.

Ruth Harrington as assistant professor, School of Nursing, from October 1, 1939 to June 30, 1940

B.A. 1929, Radcliffe College; M.A. 1938, Teachers College, Columbia University.

Alan Holske as assistant professor of German for 1939-40

B.A. 1927, M.A. 1933, Ph.D. 1936, Harvard University.

- Walter Huchthausen as assistant professor of architecture for 1939-40
 B.A. 1928, University of Minnesota; M.A. 1930, Harvard University.
- Haddow M. Keith as assistant professor of pediatrics, Mayo Foundation, beginning July 1, 1939
 M.B. 1924, University of Toronto.
- Parker Lesley as assistant professor, Department of Fine Arts, for 1939-40
 B.A. 1934, Stanford University; M.F.A. 1938, Princeton University.
- Alice C. Linn as extension specialist in clothing with rank of assistant professor in agricultural extension, beginning January 1, 1940
 B.S. 1931, M.S. 1939, Kansas State College.
- Lieutenant Commander Harold F. Pullen as assistant professor of naval science and tactics for 1939-40
 United States Naval Academy, Annapolis, 1922.
- Eric G. Sharvelle as assistant professor of plant pathology and botany from October 1, 1939 to June 30, 1940
 B.S.A. 1930, McGill University; M.S. 1932, University of Alberta; Ph.D. 1934, University of Minnesota.
- Hugh L. Turriffin as assistant professor of mathematics and mechanics for 1939-40
 B.S. in C.E. 1927, University of Minnesota; M.S. 1929, Ph.D. 1934, University of Wisconsin.
- Lieutenant Calvin A. Walker, Jr., as assistant professor of naval science and tactics for 1939-40
 United States Naval Academy, Annapolis, 1929.

Professorial Lecturers

- Gregoire F. Amyot as professorial lecturer, Department of Preventive Medicine and Public Health, from October 1, 1939 to March 31, 1940
 M.B. 1925, M.D. 1930, University of Toronto; D.P.H. 1930, University of Toronto School of Hygiene.
- Felix Payant as professorial lecturer, College of Education, for 1939-40
 B.S. 1919, Teachers College, Columbia University.
- Edward B. Reuter as professorial lecturer in sociology for the winter quarter of 1939-40
 B.A. and B.S. 1910, M.A. 1911, University of Missouri; Ph.D. 1919, University of Chicago.

PROMOTIONS EFFECTIVE 1938-39

Associate Professor to Professor

- Clara M. Brown (College of Education—home economics education)
 Jonas J. Christensen (College of Agriculture, Forestry, and Home Economics—plant pathology and botany)
 J. William Buchta (College of Science, Literature, and the Arts—physics)
 Ernest A. Heilman (School of Business Administration)
 John J. Reighard (School of Business Administration)

Associate Professor to Clinical Professor

- Max Scham (Medical School—pediatrics)

Assistant Professor to Associate Professor

- Marvin J. Van Wagenen (College of Education—general education)
 Iver J. Johnson (College of Agriculture, Forestry, and Home Economics—agronomy and plant genetics)
 Ernest S. Osgood (College of Science, Literature, and the Arts—history)
 Arthur Borak (School of Business Administration)
 Edward G. Jennings (Law School)
 Lura C. Hutchinson (Library Instruction)
 Orwood J. Campbell (Medical School—surgery)
 Albert V. Stoesser (Medical School—pediatrics)
 Nelson W. Barker (Mayo Foundation—medicine)
 Gershom J. Thompson (Mayo Foundation—urology)
 Charles H. Watkins (Mayo Foundation—medicine)
 George W. Hauser (Physical Education for Men)
 Henry C. T. Eggers (Institute of Technology—drawing and descriptive geometry)

Instructor to Assistant Professor

- Ernest Angelo (College of Agriculture, Forestry, and Home Economics—horticulture)
 Eva G. Donelson (College of Agriculture, Forestry, and Home Economics—home economics)
 Alexander C. Hodson (College of Agriculture, Forestry, and Home Economics—entomology and economic zoology)
 E. Fred Koller (College of Agriculture, Forestry, and Home Economics—agricultural economics)
 Glenn I. Prickett (College of Agriculture, Forestry, and Home Economics—West Central School and Station)
 John T. Flanagan (College of Science, Literature, and the Arts—English)
 Marguerite Guinotte (College of Science, Literature, and the Arts—Romance languages)
 Tom B. Jones (College of Science, Literature, and the Arts—history)
 Elmer S. Miller (College of Science, Literature, and the Arts—botany)
 Laurence S. Moyer (College of Science, Literature, and the Arts—botany)
 Mary J. Shaw (College of Science, Literature, and the Arts—orientation)
 Julian L. Maynard (Institute of Technology—inorganic chemistry)
 Glenn H. Peebles (Institute of Technology—mathematics and mechanics)
 Ole Gisvold (College of Pharmacy)
 Ray N. Faulkner (General College)
 Alfred L. Vaughan (General College)
 Claude R. Baker (School of Dentistry)
 Ione Jackson (School of Dentistry)
 Charles Peterka (School of Dentistry)
 Dorothea F. Radusch (School of Dentistry)
 Abe B. Baker (Medical School—medicine)
 John R. Paine (Medical School—surgery)
 Thomas J. Dry (Mayo Foundation—medicine)
 Julia F. Herrick (Mayo Foundation—experimental medicine)
 Louis G. Stuhler (Mayo Foundation—urology)

Instructor to Clinical Assistant Professor

- Edward D. Anderson (Medical School—pediatrics)
 L. Haynes Fowler (Medical School—surgery)
 William A. Hanson (Medical School—surgery)
 Frank L. Jennings (Medical School—medicine)
 Leonard A. Lang (Medical School—obstetrics and gynecology, beginning October 1, 1938)
 Donald McCarthy (Medical School—medicine)
 Carl O. Rice (Medical School—surgery)
 George N. Ruhberg (Medical School—medicine)
 W. Ray Shannon (Medical School—pediatrics)

Clinical Instructor to Clinical Assistant Professor

- Theodore H. Sweetser (Medical School—urology, surgery)

CHANGES IN TITLE, 1938-39

- Clyde H. Bailey, to vice-director of Agricultural Experiment Station
 Theodore H. Fenske, acting superintendent, West Central School and Experiment Station to superintendent, West Central School and Experiment Station, beginning July 1, 1938
 Wilford S. Miller, acting dean of Graduate School to assistant dean of Graduate School
 Wilford S. Miller, assistant dean of Graduate School to acting dean of Graduate School, October 20, 1938 to June 30, 1939
 Wesley E. Peik, acting dean of the College of Education to dean of the College of Education

PROMOTIONS EFFECTIVE 1939-40

- Wilford S. Miller, from professor of general education to professor of general education and acting dean of the Graduate School, January 1 to June 30, 1940

T. Raymond McConnell from assistant director and professor of educational research, College of Education to professor of educational research, College of Education and associate dean of the College of Science, Literature, and the Arts, beginning June 16, 1940

Associate Professor to Professor

William E. Petersen (College of Agriculture, Forestry, and Home Economics—dairy husbandry)
 Walter M. Lauer (Institute of Technology—chemistry)
 Ancel Keys (Physical Education for Men)
 Albert M. Snell (Mayo Foundation—medicine)

Professorial Lecturer to Professor

Konstantin Reichardt (College of Science, Literature, and the Arts—German and Scandinavian)

Assistant Professor to Associate Professor

Troy N. Currence (College of Agriculture, Forestry, and Home Economics—horticulture)
 Robert C. Lansing (College of Agriculture, Forestry, and Home Economics—rhetoric)
 Ethel Phelps (College of Agriculture, Forestry, and Home Economics—home economics)
 Skuli Rutford (College of Agriculture, Forestry, and Home Economics—agricultural extension)
 Ralph H. Brown (College of Science, Literature, and the Arts—geography)
 Harold C. Deutsch (College of Science, Literature, and the Arts—history)
 C. Lowell Lees (College of Science, Literature, and the Arts—speech)
 Benjamin E. Lippincott (College of Science, Literature, and the Arts—political science)
 Elio D. Monachesi (College of Science, Literature, and the Arts—sociology)
 Clarence P. Oliver (College of Science, Literature, and the Arts—zoology)
 Lynn H. Rumbaugh (College of Science, Literature, and the Arts—physics)
 Guy L. Bond (College of Education—general education)
 William S. Carlson (College of Education—University High School)
 Harry J. Ostlund (School of Business Administration)
 Gladstone B. Heisig (Institute of Technology—chemistry)
 Margaret G. Arnstein (Medical School—preventive medicine and public health)
 Lucile Petry (Medical School—School of Nursing)
 Alan E. Treloar (Medical School—preventive medicine and public health)
 Harold N. G. Wright (Medical School—pharmacology)

Clinical Assistant Professor to Associate Professor

Ralph V. Ellis (Medical School—medicine; preventive medicine and public health)

Lecturer to Associate Professor

Tracy F. Tyler (College of Education—beginning September 16, 1939)

Assistant Professor to Clinical Associate Professor

Archibald B. Butter (School of Dentistry)

Clinical Assistant Professor to Clinical Associate Professor

Lawrence R. Boies (Medical School—ophthalmology and otolaryngology)
 Carl B. Drake (Medical School—medicine)
 Hyman S. Lippman (Medical School—pediatrics)
 Francis W. Lynch (Medical School—medicine)
 Harry Zimmerman (Medical School—surgery)

Lecturer to Assistant Professor

Monica K. Doyle (College of Science, Literature, and the Arts—sociology)

Instructor to Assistant to the Dean and Assistant Professor

Horace T. Morse (College of Education and Graduate School)

Instructor to Acting Assistant Director and Assistant Professor

James W. Thornton (General College)

Instructor to Assistant Professor

- Asher N. Christensen (College of Science, Literature, and the Arts—political science)
 Lynwood G. Downs (College of Science, Literature, and the Arts—German)
 Evron M. Kirkpatrick (College of Science, Literature, and the Arts—political science)
 Sverre Norborg (College of Science, Literature, and the Arts—philosophy)
 Clyde Christensen (College of Agriculture, Forestry, and Home Economics—plant pathology and botany)
 Louise T. Dodsall (College of Agriculture, Forestry, and Home Economics—plant pathology and botany)
 Vetta Goldstein (College of Agriculture, Forestry, and Home Economics—home economics)
 Helen Hart (College of Agriculture, Forestry, and Home Economics—plant pathology and botany)
 Arthur E. Hutchins (College of Agriculture, Forestry, and Home Economics—horticulture)
 Stefan A. Riesenfeld (Law School)
 Charles F. Code (Medical School—physiology)
 Reynold A. Jensen (Medical School—pediatrics)
 Charles E. Rea (Medical School—surgery)
 Eunice Flock (Mayo Foundation)
 Edgar A. Hines, Jr. (Mayo Foundation)
 John M. Waugh (Mayo Foundation)

Instructor to Clinical Assistant Professor

- Paul E. Weston (School of Dentistry)

Clinical Instructor to Clinical Assistant Professor

- Frank L. Bryant (Medical School—ophthalmology and otolaryngology)
 Paul F. Dwan (Medical School—pediatrics)
 Gordon R. Kamman (Medical School—medicine)
 Elmer M. Rusten (Medical School—medicine)
 Virgil J. Schwartz (Medical School—ophthalmology and otolaryngology)
 Frank H. Whitmore (Medical School—medicine)
 Robert L. Wilder (Medical School—pediatrics)
 Louis H. Winer (Medical School—medicine)

Clinical Assistant to Clinical Assistant Professor

- Malcolm C. Pfunder (Medical School—ophthalmology and otolaryngology)

LEAVES OF ABSENCE, 1938-39

- John E. Anderson, professor and director, Institute of Child Welfare, without salary from July 1 to August 28, 1939, to lecture at the University of Chicago.
 Francis B. Barton, professor and chairman, Department of Romance Languages, sabbatical furlough for 1938-39, for study and travel in France and Spain.
 S. Chatwood Burton, professor of architecture, sabbatical furlough for 1938-39, to carry on experiments in etching, lithography, and painting in western Texas.
 William S. Cooper, professor of botany, with half salary for the spring quarter of 1938-39, on account of illness.
 Ross A. Gortner, professor and chief, Division of Agricultural Biochemistry, with salary from September 12 to December 31, 1938, on account of illness.
 Samuel Kroesch, professor of German, without salary for 1938-39, on account of illness. (Died October 26, 1938.)
 Wylle B. McNeal, professor and chief, Division of Home Economics, with salary from December 16, 1938 to January 15, 1939, on account of illness.
 Ruth Raymond, professor of art education, sabbatical furlough for 1938-39, for study and travel.
 Horace E. Read, professor, Law School, with salary from May 5 to 29, 1939, on account of illness.
 Elmer E. Stoll, professor of English, sabbatical furlough for 1938-39, for rest and study.

- C. Gilbert Wrenn, professor, College of Education, without salary from December 16, 1938 to March 15, 1939, without jeopardizing claim to sabbatical furlough, to write a report on the recreation of youth for the American Youth Commission.
- Harriet Goldstein, associate professor of home economics, sabbatical furlough from March 16 to June 15, 1939, to complete revision of book, *Art in Everyday Life*.
- Richard Hartshorne, associate professor of geography, sabbatical furlough for 1938-39, to prepare a book on political geography of Europe.
- William Lindsay, associate professor of music, sabbatical furlough for the spring quarter of 1938-39, for study abroad.
- Robert S. Livingston, associate professor of physical chemistry, sabbatical furlough from September 1, 1938 to August 31, 1939, for study on photochemical problem at Johns Hopkins University.
- Abe Pepinsky, associate professor of general education, sabbatical furlough for 1938-39, for completion of research and dissertation for doctorate.
- David M. Robb, associate professor of fine arts, without salary for the winter and spring quarters of 1938-39, without jeopardizing claim to sabbatical furlough, for study for Doctor's degree at Princeton University.
- John A. Urner, associate professor of obstetrics and gynecology, without salary from July 1, 1938 to March 31, 1939, on account of illness. (Died July 15, 1938.)
- Wallace D. Armstrong, assistant professor of dentistry and physiological chemistry, School of Dentistry, without salary from September 16, 1938 to March 31, 1939, without jeopardizing claim to sabbatical furlough, to accept Commonwealth Fund Fellowship for study in Copenhagen and London.
- Howard W. Barlow, assistant professor of aeronautical engineering, without salary for 1938-39, without jeopardizing claim to sabbatical furlough, as exchange professor at New York University.
- Rufus J. Christgau, assistant professor of animal and dairy husbandry and athletic coach at Northwest School and Experiment Station, sabbatical furlough from October 1, 1938 to September 30, 1939, to study for the Master's degree.
- Robert V. Cram, assistant professor, Department of Classics, sabbatical furlough for 1938-39, for travel and study.
- John T. Flanagan, assistant professor of English, without salary for 1938-39, without jeopardizing claim to sabbatical furlough, for research and work on biography of James Hall.
- Elizabeth G. Gardiner, assistant professor of sociology, without salary for 1938-39, to accept position with National Society for Prevention of Blindness, New York.
- Edwin A. Hanson, extension dairyman with rank of assistant professor in agricultural extension, with salary from June 19 to 30, 1939, on account of injury.
- Elizabeth Jackson, assistant professor of English, without salary for one-third time fall and winter quarters of 1938-39, without jeopardizing claim to sabbatical furlough, to continue work on a book.
- Fred L. Kildow, assistant professor of journalism, without salary for the fall quarter of 1938-39, without jeopardizing claim to sabbatical furlough, to complete work for Master's degree and to complete manuscript for a book.
- Emilio C. LeFort, assistant professor of Romance languages, sabbatical furlough for 1938-39, for study of Latin-American literature and culture.
- Faith Thompson, assistant professor of history, sabbatical furlough for 1938-39, to accept a Guggenheim Fellowship for study abroad.

LEAVES OF ABSENCE, 1939-40

- John D. Akerman, professor and head, Department of Aeronautical Engineering, sabbatical furlough for the fall quarter of 1939-40, for travel and study abroad.
- Leon E. Arnal, professor of architecture, sabbatical furlough for 1939-40, for travel and study in Europe. (Cancelled part of leave and returned to University on full-time basis January 1, 1940.)
- Theodore C. Blegen, professor of history, sabbatical furlough for 1939-40, for study and writing.
- Clara M. Brown, professor of home economics education, without salary for the winter quarter of 1939-40, without jeopardizing claim to sabbatical furlough, for work with the Federal Office of Education in Washington, D.C., analyzing data collected in nation-wide survey on status of home economics training in secondary schools of the United States; also to work at Pennsylvania State College to assist in their program of curriculum study.

- Frank E. Burch, professor and head, Department of Ophthalmology and Otolaryngology, without salary from December 16, 1939 to May 31, 1940, to serve as visiting professor of ophthalmology at the Peiping Union Medical College at the invitation of the China Medical Board.
- Josephine C. Foster, principal and professor, Institute of Child Welfare, leave with salary January 1 to March 15, 1940 and without salary March 16 to June 15, 1940, on account of illness.
- William L. Hart, professor of mathematics, sabbatical furlough for 1939-40, for study and research in the United States.
- Herbert Heaton, professor of history, without salary for 1939-40, without jeopardizing claim to sabbatical furlough, to serve as visiting professor of economic history at Princeton University.
- August C. Krey, professor of history, sabbatical furlough for 1939-40, to edit *William of Tyre: History of Things Done in Lands Beyond the Sea*.
- Charles A. Mann, professor and chief, Division of Chemical Engineering, with half salary for the winter and spring quarters of 1939-40, on account of illness.
- Irvine McQuarrie, professor and head, Department of Pediatrics, sabbatical furlough for the winter and spring quarters of 1939-40, to serve as visiting professor of pediatrics at Peiping Union Medical College.
- Louallen F. Miller, professor of physics, with half salary for winter quarter of 1939-40, on account of illness.
- Lowry Nelson, professor of sociology, with salary from November 15 to December 4, 1939, for meeting of North and South American members of the Permanent Agricultural Committee of the International Labor Office at Havana, Cuba.
- David F. Swenson, professor and chairman, Department of Philosophy, with half salary for the winter and spring quarters of 1939-40, on account of illness. (Died February 11, 1940)
- George B. Vold, professor of sociology, sabbatical furlough for 1939-40, to study and travel in Mexico, the United States, and the South American countries, visiting penal institutions.
- Charles A. Wiethoff, professor, School of Dentistry, without salary for 1939-40, to devote full time to private practice.
- Laurence M. Winters, professor of animal and poultry husbandry, with salary from August 1 to 31, 1939, to attend and present a paper at the Seventh International Congress of Genetics at Edinburgh, Scotland.
- Henry E. Hartig, associate professor of electrical engineering, sabbatical furlough for 1939-40, for study and visits to laboratories and universities in the United States and Europe.
- Robert S. Hilpert, associate professor of art education, without salary for 1939-40, without jeopardizing claim to sabbatical furlough, to teach at the University of California at Los Angeles and to study the schools of Eagle Rock and Long Beach.
- Emerson P. Schmidt, associate professor, School of Business Administration, without salary for 1939-40, without jeopardizing claim to sabbatical furlough, to engage in a research project on employment stabilization made possible by J. C. Hormel of Austin, Minnesota.
- Alice L. Shea, associate professor of sociology, without salary for the winter quarter of 1939-40, without jeopardizing claim to sabbatical furlough, for research and writing.
- Arthur R. Upgren, associate professor, School of Business Administration, without salary from February 1 to June 15, 1940, for special research in the field of foreign trade and international economic relations for the Council on Foreign Relations.
- Edmund G. Williamson, associate professor of psychology and co-ordinator of student personnel services, without salary from August 3 to 17, 1940, to teach courses in student personnel work at Harvard University summer session.
- Edith Boyd, assistant professor of anatomy, on half salary from April 16 to June 15, 1940, on account of illness.
- Allen W. Edson, assistant professor, West Central School and Experiment Station, sabbatical furlough from April 1 to June 30, 1940, to work for Master's degree at the University of Minnesota.
- Marguerite Guinotte, assistant professor of Romance languages, sabbatical furlough for 1939-40, for study and travel in France. (Cancelled on account of war.)

- Elizabeth Jackson, assistant professor of English, without salary for one-third time for the fall and winter quarters of 1939-40, without jeopardizing claim to sabbatical furlough, to continue work on a book.
- Ralph A. Piper, assistant professor, Department of Physical Education for Men, sabbatical furlough from February 1 to June 15, 1940, with privilege of taking one-half year during the next six years to complete residence requirements for doctorate.
- Henry A. Pflughoeft, district club agent with rank of assistant professor in agricultural extension, sabbatical furlough from September 1, 1939 to August 31, 1940, for graduate study.
- Ella J. Rose, assistant professor of home economics education, without salary for the fall quarter of 1939-40, without jeopardizing claim to sabbatical furlough, to continue work toward Doctor's degree at Ohio State University.
- James J. Ryan, assistant professor of mechanical engineering, sabbatical furlough for 1939-40, for graduate work at Stanford University.
- Raymond F. Sletto, assistant professor of sociology, without salary for 1939-40, without jeopardizing claim to sabbatical furlough, to accept post-doctoral research training fellowship by the Social Science Research Council.
- Joseph R. Starr, assistant professor of political science, sabbatical furlough for 1939-40, to study party organizations and for access to library collections at Washington, D.C.
- Lucy A. Studley, assistant professor of home economics, sabbatical furlough for 1939-40, for writing, study, and travel in the United States.
- Louis G. Stuhler, assistant professor of urology, Mayo Foundation, without salary for 1939-40.

DEATHS

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

PIERCE BUTLER

1866-1939

Pierce Butler, associate justice of the Supreme Court, died in Washington on November 16, 1939. He had served as a member of the Board of Regents from 1907 until 1924.

Justice Butler was born in Dakota County, Minnesota, on March 17, 1866. He attended Carleton College, from which he graduated in 1877. Following his college course he studied law in St. Paul, and in 1888 was admitted to the bar. He practiced his profession in that city until 1923. On November 23, 1922 he was nominated by President Warren G. Harding as associate justice of the United States Supreme Court. This nomination was confirmed by the Senate on December 21, and on January 2, 1923, he took his place on the court. His abilities were specially recognized by Carleton College, Amherst College, and Catholic University, all of which conferred upon him the honorary LL.D. degree.

At a meeting of the Board of Regents on November 25, 1939, tribute was paid to Justice Butler by a silent, standing vote.

ROYAL NORTON CHAPMAN

1889-1939

Royal Norton Chapman, professor of ecology and dean of the Graduate School, died on December 2, 1939.

Dean Chapman was born September 17, 1889, at Morristown, Minnesota, the son of Norton E. and Frankie E. Crowther Chapman. He received his preparatory education at Pillsbury Academy, entered the University of Minnesota in 1910, was scholar in animal biology, 1912-14, and graduated with the B.A. degree in 1914. During 1914-15 he was assistant in animal biology and in 1915 received his M.A. degree. He continued graduate study at Cornell University as the Schuyler fellow in entomology, 1915-16. During 1916-17 he was teaching fellow in animal biology at Minnesota and received his Ph.D. degree from Cornell in 1917. In that year he returned to Minnesota as instructor in animal biology, was

assistant professor and assistant entomologist with the Experiment Station, 1918-23, associate professor of animal biology and entomology, 1923-25, professor and chief of the Division of Entomology and Economic Zoology, 1925-30.

In 1924 Dean Chapman made his first visit to Hawaii as a delegate to the Pan-Pacific Food Conservation Conference. The year 1926-27 he spent in Europe as Rockefeller Foundation traveling professor and Guggenheim Memorial Foundation fellow. His recommendations to the Rockefeller Foundation resulted in new and extensive facilities for scientists in Europe, especially at Cambridge University, England. In 1929 he was appointed consultant for the Association of Hawaiian Pineapple Cannery and in the following year he went to Hawaii to become the director of the Experiment Station in Honolulu of the newly formed Pineapple Producers' Cooperative Association. In 1931 he became dean of the Graduate School of Tropical Agriculture, University of Hawaii, from whence he was called in July, 1939, to succeed Guy Stanton Ford as dean of the Graduate School of the University of Minnesota, and as professor of ecology. He returned to the University, therefore, not merely to serve as an administrative officer, but in order that he might have a larger opportunity to carry forward his researches in his chosen field.

From the beginning of his career these researches into the environmental factors affecting plants and their distribution and into the pests which attack them produced valuable results. These have been made known to his fellow scientists through numerous contributions to various scientific journals, such as *Ecology*, *Journal of Agricultural Research*, *Journal of Anatomy*, *Journal of Economic Entomology*, *Journal of Experimental Zoology*, by his papers in the *Report of the State Entomologist of Minnesota*, in the bulletins of the Minnesota and Cornell Experiment Stations, and in his book, *Animal Ecology with Especial Reference to Insects*. In addition to such personal contributions he also served as editor of the General and Systematic Entomology Sections of *Biological Abstracts*, 1927-35, and as editor of *Ecological Monographs*, 1931.

For his achievements as a scientist Dean Chapman was honored by election in 1924 to the presidency of the Entomological Society of America, in 1932 to the presidency of the Hawaiian Entomological Society, and was named among America's distinguished Men of Science. He was a member also of numerous scientific organizations, of the American Society of Naturalists, American Association of Economic Entomologists, American Society of Zoologists, Ecological Society of America, British Ecological Society, and Hawaiian Academy of Science.

Hawaii's words of farewell to him, "the University of Minnesota's gain is Hawaii's loss," have something tragic in them now that he is lost to both, but his meaning for them both, his influence as a scientist and as a citizen will not be lost.

ALICE MAY CHILD

1876-1938

Alice May Child, associate professor of home economics, who had been connected with the University as student, instructor, and associate professor since 1898, died July 10, 1938.

Miss Child was born in Chaska, Minnesota, May 3, 1876, entered the University upon her graduation from high school, and received the B.S. degree in the School of Chemistry in 1901. She taught physics and chemistry until 1911, when she went to Columbia University, to continue graduate study and received her M.A. degree in 1912. After teaching in Minnesota, Michigan, and Wisconsin, she returned to the University of Minnesota to become a laboratory assistant, working under the direction of Mrs. Mildred Weigley Wood, then chief of the Division of Home Economics, in studies on the relation of chemistry to foods. She became an instructor in 1919 and an associate professor in 1929.

When in 1926 the Purnell Act provided funds for the establishment of an experimental station, Miss Child became a member of the staff and it was in this capacity that she was able to inaugurate and to direct numerous investigations into the value, the use, and preparation of foods. The results of such research were published in the bulletins of the Minnesota Agricultural Experiment Station and in various journals, such as the *Journal of the American Dietetic Association*, *Journal of Agricultural Research*, *Journal of Home Economics*, *South Dakota Horticulturist*, and, in more popular form, in the *Ladies Home Journal* and *McCall's*

Magazine. Just before her last illness she attended a meeting in Chicago of the Committee on the Cooperative Meat Investigation, of which she had been a member since its organization.

Professor Child was an enthusiastic teacher, quick to recognize new problems in her field and fertile in suggesting new approaches to old problems. She gave much to the University and to the state during the nineteen years of her service and left a memory that will endure.

LOTUS DELTA COFFMAN

1875-1938

(See pages 29-36 of this report)

JAMES DAVIES

1870-1940

James Davies, member of the Department of German from 1909 to 1938, and for many years music critic of the *Minneapolis Tribune*, died in Minneapolis on January 7, 1940. He had retired from active duty at the University at the close of the academic year 1937-38.

Professor Davies was born on April 17, 1870, in Stockport, England. When he was eighteen years old he came to this country. He attended Wilbraham Academy, in Massachusetts, from which he entered Boston University. In 1900 he received his Ph.B. degree from that institution. Five years later he received the M.A. degree from the same institution. He then went abroad for study in Germany, and in 1906 was granted the Ph.D. degree at Leipzig University. Between 1905 and 1909 he was lecturer on English literature at Leipzig.

It was while at Leipzig that Professor Davies met Professor and Mrs. Carlyle Scott, and Mrs. Scott's sister, whom he married. In 1909 Professor Davies came to Minneapolis as an assistant in the Department of German. From that year until he retired from the faculty in 1938, Professor Davies occupied the same office, through which had passed thousands of students. His philosophy with respect to teaching he himself put in these words, just before his retirement: "I've watched the students come and go, and I have always encouraged them to come to me with their troubles. I can't remember my first class, but I shall always remember my last. I've enjoyed it all. Never have I gone into a classroom without expecting to enjoy the experience, and seldom, if ever, have I been disappointed." He was a beloved teacher.

Professor Davies had a life interest in music, and a sound training in it. For twenty years he served as music critic of the *Minneapolis Tribune*, and earlier for the *Minneapolis Daily News*. The news of his death gave rise to a flood of tribute in which musicians, critics, and faculty associates and former students joined.

JOHN FLORIAN DOWNEY

1846-1939

On Friday, April 28, 1939, death came to Professor and Dean Emeritus John Florian Downey, who had celebrated his ninety-third birthday in January of that year.

Dean Downey was born on January 10, 1846, at Hiramburg, Ohio. His preparatory education he received at Colno Seminary in Michigan, but, as soon as he was eighteen years old, he enlisted in the 11th Michigan Infantry as "drummer-boy." He served as "pioneer" in the Campaign to the Sea under General Sherman and before the conclusion of that campaign he was made principal musician with the rank of sergeant major. After serving in the army from January 1864 to October 1865, he returned to Michigan and entered Hillsdale College from which he graduated with the B.S. degree in 1870. For the following year, 1870-71, he was an instructor in Hillsdale College, then during 1871-72, principal of the high school at Cassopolis, Michigan, pursuing concurrently graduate study at the University of Michigan. In 1873 he returned to Hillsdale College and completed his work for the master's degree in science. From 1873-80 he was professor of mathematics in the State College of Pennsylvania, from which institution he received the C.E. degree in 1887. In the same year he was given the M.A. degree by Hillsdale College. From Penn State he came to the University of Minnesota in 1880 and from that date until 1894 he served as professor of mathematics and

astronomy and head of the department. In 1894 he was made professor of mathematics and head of the Department of Mathematics, and in 1903 was appointed dean of the Arts College. It was during his administration and under his active supervision that Folwell Hall was planned and built. He continued his twofold service as teacher and administrator until August, 1914, when at the age of sixty-eight, he was retired with the titles of professor emeritus of mathematics and dean emeritus of the College of Science, Literature, and the Arts. The only interruption to this period of thirty-four years of service with the University was in the year 1901-02 which Professor Downey spent at the Universities of Goettingen and Edinburgh. His grasp of mathematical principles, his clarity in expounding them, his interest in his subject, found abiding expression in his lectures and in his published works: *Elements of Differentiation and Integration*, 1898, *Higher Algebra*, 1900, *The New Revelation through the Spectroscope and the Telescope*, 1914. Dean Downey was a member of the American Mathematical Society, the Astronomical Society of the Pacific, and the A.A.A.S. In 1917 Hillsdale College conferred upon him the degree of doctor of laws.

The physical and intellectual vitality which had been a marked trait of Dean Downey had suffered little diminution through the years, so that upon his retirement from the University it seemed that life was beginning for him anew. He moved to Pasadena, California, where he could be near the Mt. Wilson Observatory and continue to indulge his interest in astronomy. He lectured frequently and traveled extensively. For two years, 1916-18, he was professor of mathematics in the University of Nanking, China, and during 1918-19 held the same post in the University of Peking. In 1925 he was a delegate to the World Educational Conference at Edinburgh and during September of the same year he was an observer at the sessions of the League of Nations in Geneva.

It is not granted to many to live a life so rich, so packed with interest, so helpful to others.

CLIFFORD PENNY FITCH

1884-1940

Clifford P. Fitch died January 11, 1940. He was born on a farm in Sauquoit, Oneida County, New York, July 1, 1884, and attended the country school there and Sauquoit Academy, graduating from the latter institution in 1901. Dr. Fitch returned to the academy for a postgraduate year and then entered Hamilton College at Clinton, New York, where he graduated in 1906 with the degree of bachelor of science with honors in the Departments of Mathematics and Biology. He taught mathematics and science in the high school at Glenridge, New Jersey, in 1906-1907; worked in the First National Bank at Utica, New York, in 1907-1908; and entered the Veterinary College at Cornell University, Ithaca, New York, in the fall of 1908. He was appointed assistant for the summer of 1909 and graduated in 1911 with honors. Dr. Fitch remained on the staff at the Veterinary College at Ithaca until 1917, where he held the title of professor of veterinary pathology and bacteriology. During this period he taught bacteriology and parasitology and took charge of the diagnostic work in conjunction with the State Department of Agriculture during 1910 to 1914. He received the degree of master of science at Hamilton College in 1909 for work done at Cornell. He was granted the honorary degree of doctor of science from the Iowa State College in 1929.

Dr. Fitch's investigational work at Cornell included methods of diagnosis, preparation of vaccines and bacterins, forms of standardization, methods of spread and elimination of the cause of Bang's disease, investigation of anthrax-like bacteria, and the diagnosis and suppression of glanders. This latter work was largely carried on in New York City. In 1917 Dr. Fitch was appointed professor of animal pathology and bacteriology and chief of the Division of Veterinary Medicine at the University of Minnesota, which positions he held until his death. As a member of the Minnesota State Live Stock Sanitary Board, Dr. Fitch participated in the formation of policies for the control of animal diseases in the state, with especial reference to tuberculosis, Bang's disease, hog cholera, and diseases of poultry.

Dr. Fitch joined the American Veterinary Medical Association in 1912 and served as resident secretary for New York, 1915-16, and for Minnesota, 1918-19. He served practically continuously as a member of the Committee on Bang's Disease from 1919 until 1930, and during more than half of this period he was chairman of the committee. Dr. Fitch was secretary of the Minnesota State Veteri-

nary Medical Society for twenty years and built up that organization until it became one of the largest in the country.

Dr. Fitch was a fellow of the American Association for the Advancement of Science and held membership in the following organizations: Society of American Bacteriologists, American Public Health Association, Society of Experimental Biology and Medicine, United States Livestock Sanitary Association, and Minnesota Academy of Science. His honors included Sigma Xi, Alpha Zeta, and Gamma Sigma Delta.

His loss, personal and professional, is one that will long be felt.

HENRY JESSE FLETCHER

1860-1938

Henry Jesse Fletcher, professor of law, died November 7, 1938, at Cardinal, Virginia. Professor Fletcher was born at Maquoketa, Iowa, in 1860. He was educated at the University of Michigan, came to Minneapolis as a young man, practiced law for a few years, and then joined the faculty of the Law School of the University in 1895, when the school was seven years old. From that date until his retirement because of ill health in 1929 he served the University without interruption. During his career he taught most of the subjects in the Law School curriculum, although in his later years he specialized in sales, insurance, and bankruptcy. He was the first editor-in-chief of the *Minnesota Law Review*, serving from its inception in 1917 until his retirement, and had much to do with raising that *Review* to the high place it occupies with the bar of Minnesota and throughout the country. He was granted the master of laws degree by the University of Minnesota in 1906.

During the thirty-four years of Professor Fletcher's connection with the University of Minnesota, most of the graduates of the Law School now living had the good fortune to come under his instruction. Above and beyond his extensive learning in literature, history, and the many fields of law, he will be long remembered for his graciousness and his unusual qualities of mind and heart.

THEOPHILUS LEVI HAECKER

1846-1938

Theophilus Levi Haecker, professor emeritus of dairy husbandry, died August 12, 1938. Professor Haecker was born of German stock in a log cabin in Ohio, the fourth of twelve children. The family moved to a farm near Madison, Wisconsin, where he entered the University of Wisconsin in 1863. After service as a volunteer under Grant during the Richmond campaign, he taught school for several years, edited a paper in Iowa, then renewed attendance at the University of Wisconsin, and finally established a dairy farm near Madison. Governor Taylor appointed him executive clerk in 1874, a position he held for seventeen years, during which he also conducted experiments on his farm and promoted co-operation and agricultural education in Wisconsin.

In 1891 he became instructor in the first dairy school of its kind in the world, and in the same year the Regents of the University of Minnesota secured him as an instructor in dairying at the University. In 1903 he was made professor of dairy husbandry to which in 1907 the title of professor of animal nutrition was added. In 1918 Professor Haecker retired as professor emeritus.

The agricultural situation in Minnesota was ripe for the coming of Mr. Haecker, since grain farming was waning and dairying was needed. In all its branches he was a leader. The results of his studies in milk production and animal nutrition, which were published in a series of bulletins, became known as "The Haecker Standard" and were used throughout the country. He lectured to farmers up and down the state, pointing the way to successful dairying through selection of cattle, the adoption of scientific feeding, and the establishment of co-operative creameries. Not only did he improve dairy manufacture by maintaining a school for butter and cheese makers, over twenty-five hundred of whom were taught by him, but, as a firm believer in co-operative production and marketing, induced farmers to follow the Danish plan. During his time co-operative creameries increased from four to six hundred eighty.

Professor Haecker was a member of Sigma Xi, the American Association for the Advancement of Science, the American Association of Animal Nutrition, and

the National Dairy Union. The University of Wisconsin in 1923 awarded him a testimonial for distinguished service in animal nutrition. In 1925 the University of Minnesota conferred a similar testimonial and named the dairy building Haecker Hall. The American Farm Bureau gave him a medal for distinguished service. The Government sent him in 1909 as representative to the world dairy convention in Budapest. Dairy organizations have honored him repeatedly, and William Watts Folwell included him among "the twelve apostles of Minnesota."

Professor Haecker's career was remarkable in that he did not begin his university work until he was forty-five years old. But his variety of experiences had prepared him for his position as investigator, teacher, and leader. In science he had no confidence in conclusions not based on thorough and detailed experiment, yet he had a missionary zeal in spreading practical scientific information. For twenty years after his retirement he lived a contented, active life, gratified to see his work vigorously continued, maintaining his reading in history and science, and thankfully and humbly receiving the loving tributes of old students and friends.

JOHN BLACK JOHNSTON

1868-1939

Dean Emeritus John Black Johnston was born in Belle Center, Ohio, October 3, 1868. He graduated from the University of Michigan in 1893 with the degree of Ph.B., served six years as assistant and instructor in that university while he pursued graduate study and took there the degree of Ph.D. in 1899. Then followed fifteen years of distinguished work in the field of science. From the University of Michigan he went as professor of zoology (1899) to the University of West Virginia, where he remained until 1907. At West Virginia he embarked on a study of the vertebrate nervous system, which eventually involved a year's research in the Biological Institute at Naples, Italy. In 1906 he published his widely used volume, *The Nervous System of Vertebrates*, announcing a plan of functional organization which has been generally accepted by neurologists. In 1907 Dean Johnston came to the University of Minnesota as assistant professor of the anatomy of the nervous system; in 1908 he was made associate professor of the same subject; in 1909, professor of comparative neurology; and in 1914, professor of animal biology and dean of the College of Science, Literature, and the Arts. From 1910 to 1913 he was secretary of the medical faculty and from 1911 to 1914 he served as editor of research publications of that faculty. He was a charter member of the Michigan Academy of Science and of the Minnesota Neurological Society; a member of the American Society of Zoologists, the Association of American Anatomists, and the American Society of Naturalists; a fellow of the American Association for the Advancement of Science; and a member of the editorial board of the *Journal of Comparative Neurology* (1908-32). In recognition of his achievements both as a neurologist and an administrator, he was granted the honorary degree of D.Sc. by the University of Michigan in 1933.

Familiar with the high standards of the better professional schools in the United States, Dean Johnston turned his attention to the capacity and fitness of undergraduates in liberal arts colleges. Here he was a pioneer in studying the correlation between success in high school and in college and as an advocate of guidance both in secondary schools and on the college level. He recognized the need for the orientation of incoming students and then for individualizing their instruction as they matured—through independent study on one hand and, on the other, through broad programs cutting across the arbitrary boundaries of our various colleges. Eventually he came to believe that a democracy will profit most if its universities give their best attention to their ablest students and provide the unfit with pabulum appropriate to their ability. His practices were particularly influential on the activities of the Committee on Educational Testing of the American Council on Education, of which he was chairman. His educational philosophy was given permanent expression in numerous articles and in two books: *Education for Democracy* (1934), and *Scholarship and Democracy* (1937).

Dean Johnston died in California, November 19, 1939.

Because he was in every sense of the word a true scholar, the contributions of John Black Johnston to his chosen profession and to higher education were of towering importance, and they will long endure as the fitting monument to his memory.

IRVING WILLARD JONES

1875-1939

Irving W. Jones, chairman of the Students' Work Committee of the General Extension Division, and in charge of night classes, died July 12, 1939. He was born in Nashua, New Hampshire, on March 21, 1875. He was an instructor in the New Hampshire Normal School from 1906 to 1911. He was an instructor in the University of Wisconsin from 1911 to 1916. In 1916 he obtained his Ph.B. degree from the University of Wisconsin. The years 1918 and 1919 Professor Jones spent as an assistant professor at the University of Wisconsin. In the latter year he became adjunct professor at the University of Texas, where he remained until 1921. From 1921 to 1924 he was associate professor at Beloit College in Wisconsin. In 1921 he began his contact with the University of Minnesota, when he came to have charge of the entertainment and recreation program of the Summer Session. In 1924 he entered the University on a half-time basis to pursue his graduate studies. Professor Jones became a full-time member of the faculty at the University of Minnesota on February 18, 1926, where he remained, save for two years as assistant to the president of the University of Idaho.

From 1926 to 1928 he was in charge of the correspondence study work while at the same time assisting with the recreational program of the Summer Session. Since 1930 he had been in charge of the extension programs and chairman of the Students' Work Committee of the Extension Division.

Mr. Jones was very versatile in his gifts and in his interests. Chief among these interests was music, which he taught at the University of Texas and Beloit College. At the University of Minnesota he showed his musical interest in the formation of the State Public School Music League, and in his membership in musical clubs. His music library has been given to the University in his memory. He was an earnest and consistent advocate of good music.

Professor Jones' chief professional interest was in adult education, and in that field his zeal and good judgment were of great value in the development of the program of extension and adult education as adopted and fostered by the University of Minnesota.

SAMUEL KROESCH

1879-1938

Samuel Kroesch, professor of German and chairman of the department, died October 26, 1938.

Professor Kroesch was born at Woolwich, Ontario, Canada, February 10, 1879. His parents came to this country when he was still a child and he was educated in the public schools, graduating from the University of Missouri in 1903. He was superintendent of schools in Doniphan, Missouri, 1903-1904, and from 1904 until 1908 he taught in the high school at Edmond, Oklahoma, in the meantime carrying on graduate work at the University of Chicago. He was thoroughly trained in ancient and modern languages. When he went to the University of Chicago he was equipped as few graduate students were—or are—to follow his bent for linguistic studies. He had the good fortune to find there precisely the right men to guide him, among them F. A. Wood, whose influence on Professor Kroesch's studies is patent from the beginning. In such an environment and under such teachers his training and native powers came to full fruition.

Professor Kroesch early gave evidence of his deep interest and understanding of that feature of language which was to hold chief place in his thought and study—the why and wherefore of the meaning of words. His doctoral dissertation, published in 1911, two years after he had received his Ph.D. degree, is a learned and acute study on the semantic development of certain words in the Old Germanic dialects. His more mature work expanded and deepened these early efforts and gave to the world of scholarship valuable and illuminating discussions of the importance of analogy as a factor in semantic change.

Professor Kroesch after serving as professor of German at Whitman College, Walla Walla, Washington, 1906-16, came to the University of Minnesota in 1916 as assistant professor, becoming professor in 1927 and in 1928, upon the death of Professor Schlenker, professor and chairman of the department. The only interruption to his activities as teacher and scholar was the period of service, October 1, 1918 to November 27, 1919, in army intelligence work.

To his students Professor Kroesch was a scholarly and precise teacher, who demanded of them the same clarity of scholarship which he demanded of himself. To his colleagues in the University he was first of all the courteous and modest gentleman. His relations with them, as with his students, were straightforward and without pretense. Of such men are universities made.

CHARLES HORACE MAYO

1865-1939

The Regents of the University of Minnesota, on June 17, 1939, by a rising vote, adopted the following resolution on the death of Dr. Charles Horace Mayo. Dr. Mayo died on May 26, 1939.

Rarely is the life of any one man so rich in accomplishment, in loyal service to his fellow men, and so rewarded by the affection and respect of citizens everywhere, as was the life of Charles Horace Mayo. His death takes from the state of Minnesota one of its most distinguished native sons and from the larger world, one of the outstanding benefactors of mankind. It strikes from the rolls of the University of Minnesota an honored staff member and a loyal friend. Death cannot rob our University of its permanent gain from association with a man with the vision, the fidelity to high standards, and the human kindness of a Charles Horace Mayo.

Charles Horace Mayo dedicated his life to a noble cause. "My great ambition," he once said, "is to relieve all the physical suffering possible during my life." Out of this ambition, happily coupled with similar ambitions of a revered father and a devoted brother, with whom his name and fame have been associated, developed the Mayo Clinic, world-renowned as a center of medical science and medical skill. Out of the desire that his life work might go on after his passing, a desire also in sympathetic accord with the purposes of the brother, came the creation and endowment of the Mayo Foundation for Medical Research of the University of Minnesota. It is in this Clinic and in this Foundation, and in the lives of the thousands of younger doctors trained in them, that the enduring monument to the memory of Charles Horace Mayo is found. It is through this Clinic and through this Foundation and through these same younger doctors that the unselfish life ambition of Charles Horace Mayo has its fulfillment.

The Board of Regents of the University of Minnesota can frame no resolution that will give adequate and full expression to its affection for the man, or to its sense of gratitude for the joint gifts to carry forward medical education that have generously come from him and his brother; but it is the desire of the Board that there should be entered upon its records this evidence that the death of Charles Horace Mayo brings deep sadness and profound regret.

Therefore, be it resolved, That the members of the Board of Regents of the University of Minnesota by rising vote do authorize its secretary to enter upon the minutes of the Board this expression of its sorrow and its deep sympathy for the members of Dr. Mayo's family, and especially for him who has for so many years served as one of their number—Doctor William J. Mayo. And it is further directed that a copy of these resolutions be sent to Mrs. Charles Horace Mayo, to Dr. Charles W. Mayo, and to Dr. William J. Mayo.

WILLIAM JAMES MAYO

1861-1939

The Regents of the University of Minnesota, on September 15, 1939, by a rising vote, adopted the following resolution on the death of Dr. William James Mayo. Dr. Mayo died on July 28, 1939.

Seldom in any one span of years does a man create for himself so firm a place in the hearts of his contemporaries as did William James Mayo whose long life of devoted and steadfast service came to an end on July 28, 1939. He was far more than a citizen of Minnesota; he was, in truth, a citizen of the world, for his passing is mourned in the far corners

of the earth where men and women, the humble and the great, pay reverent tribute to the skill and the knowledge that have done so much to alleviate human suffering and misery. As long as need for the physician's art endures, so long will his memory be perpetuated, not only through direct contributions to professional knowledge made during his lifetime, but through the contributions of those hundreds of young physicians who were trained at the great Foundation established by the Doctors Mayo, father and sons, and there given those high ideals of scholarship and service which, in passing from generation to generation, accumulate and grow ever richer. It is a glorious heritage that William James Mayo has left behind him, for it is a living heritage that can never die.

For thirty-two years William James Mayo gave unsparingly of his time, of his interest, and of his wisdom in furthering the welfare of the University of Minnesota. But it is not only as a fellow regent that this Board mourns his passing. It is as a trusted friend that Dr. Mayo will most be missed—a friend whose qualities of human kindness, sympathy, and understanding never failed as a source of inspiration. Such men are rare, and he stands pre-eminent in a small company.

The life of William James Mayo was dominated by a high sense of social responsibility. Growing up as he did in a doctor's family, there was—as he himself so often said—never any question in his mind concerning the profession he would follow. His admiration for his father was a powerful and many-sided influence in shaping his long and distinguished career. And from this admiration there developed and was nourished the idealism that led him and his brother to the belief that any man who has had better opportunity than others, greater strength of mind, body, or character, owes something to those who have not been so provided; that is, that the important thing in life is not to accomplish for one's self alone, but for each to carry his share of collective responsibility. These sentiments were not mere words to William James Mayo; they were burning convictions that guided him through his entire adult life. It is these impelling convictions that led the Mayo brothers to return to society the profits that accrued through their able administration of the famous clinic that is associated with their name; it is these convictions that found expression in the Mayo Foundation for Medical Education and Research, affiliated with the University of Minnesota and endowed by the gifts of the two brothers. "Our State University is not political in origin or management," wrote Dr. Mayo as spokesman for himself and brother, "yet it comes from and belongs to the people. . . . The control and management of the University of Minnesota which places responsibility for its institutions in the hands of each succeeding generation, furnishes ideal conditions for the perpetuation of broadly outlined trusts and purposes. . . . The fund which we had built up and which had grown far beyond our expectations had come from the sick and we believed it ought to return to the sick in the form of advanced medical education which would develop better trained physicians, and to research to reduce the amount of sickness." Thus a profound feeling of professional obligation and social responsibility was coupled with an unusual understanding of the importance and obligations of higher education to create one of the world's outstanding educational organizations. In this Foundation are fused a supreme idealism and a practical conception of reality; it is this admixture of extremes into a workable life philosophy that made William James Mayo the great man he was.

It is impossible to think of William James Mayo without thinking also of his brother. "My brother and I" which each always used, was not a formal phrase. It covered the realities of a life-time of unbroken participation in ideals and labors. The University of Minnesota in taking them jointly into the family of alumni conferred upon them honorary degrees with identical citations: "Honored and respected wherever thought is given to medical science, recognized as outstanding figures in an era of unparalleled scientific advancement, founders of a great institution for medical research, unceasing advocates in behalf of better education, known to the world and neighbors alike as brothers Charles and William, inseparable; upon them, Charles Horace Mayo and William James Mayo,

the Regents of the University of Minnesota on recommendation of the faculties, confer the degree of doctor of laws, *honoris causa*, with all the rights and privileges belonging to that degree." It is, rather, the great good fortune of this University that the privilege came to it of having the Doctors Mayo among its most loyal supporters. Their friendship and their benefactions in no small measure have been responsible for many of the achievements that have given eminence to the University of Minnesota. Great men do make great institutions, and never was this more truly demonstrated than in the lives of these two brothers.

Therefore, be it resolved, That the Board of Regents of the University of Minnesota, by rising vote does give expression to its inestimable loss in the death of a friend and co-worker, and does further direct that this resolution be spread upon its minutes and that a copy be sent to the members of the family of William James Mayo and to the family of his brother, Charles.

JAMES PAIGE

1863-1940

James Paige, professor emeritus, Law School, since 1934, was born in St. Louis, Missouri, November 22, 1863. He died February 4, 1940. His parents were natives of New England, his father a Presbyterian minister. Later the family moved to Minnesota, where the father held pastorates in Shakopee and Carlton. James Paige returned to New England for his college preparatory work, entered Phillips Academy at Andover, Massachusetts, and graduated in 1884. He then entered Princeton University, served during his undergraduate residence as managing editor of the *Princetonian* and of the *Nassau Literary Magazine*, and graduated in 1887 B.A. *cum laude* with election to Phi Beta Kappa. He remained at Princeton for graduate study for the following year and received the M.A. degree in 1888.

It was in this year that the Board of Regents of the University of Minnesota established the Law School and James Paige enrolled in its first class. He graduated with the LL.B. degree in 1890 and began immediately his career as a teacher of law in this University, a career in which he advanced from instructorship to professorship and which ended only with his death on February 4, 1940.

During the fifty years of his teaching in the University, Professor Paige taught many courses, covering a major part of the Law School curriculum. For many of his courses he published casebooks and other materials and also prepared for the Board of Regents two editions of the code of laws governing the University of Minnesota.

When the *Minnesota Law Review* was founded in 1917, Professor Paige became its business manager. He continued his management of the *Review* as well as his teaching until his death, notwithstanding his formal retirement in 1934. He was the long-time treasurer of the Law Alumni Association and in 1937-38 managed its successful campaign for a loan fund available to law students. He twice acted as dean of the Law School, 1911-12 and 1918-19, and for many years was secretary of the faculty.

Professor Paige was perhaps best known, however, for his service as the Minnesota faculty representative on the governing committee of the Western Intercollegiate Athletic Conference. He was appointed representative by President Northrop in 1906 and served until his retirement in 1934, the longest period of continuous service known in that group.

To thousands of students Professor Paige represented a stern insistence upon high standards both in the classroom and on the athletic field. In their more mature years came increasing respect for the devotion to duty and high principle which animated all his work.

Throughout his long career at Minnesota, James Paige gave his service without stint to every assignment. He exemplified the strong sense of duty which he sought to inculcate in his students and applied rigorously to himself the standards which he insisted the students must meet. It was no objection to his mind that faithful discharge of a duty might involve unpopularity. Although repeatedly, in his work connected with athletics, he faced adverse student and alumni opinion and newspaper attack, it was sufficient for him to know what the right was and he held to it. It was his good fortune to live to win general approval of what he had done in the face of opposition.

The death of James Paige means the loss to the Law School of its last pioneer; to the University, of one of its most devoted servants; to the state, of a great citizen.

JOSEPH BROWN PIKE

1866-1938

Joseph Brown Pike, professor of Latin and chairman of the Department of Latin in the University since 1899 died November 1, 1938, at Santa Monica, California. He was born in Chicago, January 22, 1866, received his preparatory education at St. Paul High Schools, St Paul, Minnesota, graduated from the University of Minnesota in 1890, and then, after a brief period spent at the Sorbonne, Paris, took his M.A. at this University in 1891. He served as instructor here 1892-96 and was made professor in 1899, retiring in 1936 as professor emeritus.

Professor Pike was the author of many papers which have appeared in classical journals, of several textbooks which have been widely used, and of a volume of essays, *Classical Studies and Sketches*, which was published by the University of Minnesota Press in 1930, a volume which bears eloquent testimony to his broad culture, his wide reading in Latin, French, and English literature, and to the clarity, conciseness, and charm of his prose style. The few years of his retirement from active service he devoted to the translation of the famous philosophical melody, the *Polieraticus* of John of Salisbury, which he lived to complete and to guide through the press, but did not see in its final form. The University of Minnesota Press published it under the title, *Frivolities of Courtiers and Footprints of Philosophers*, shortly after his death.

In these days when many are uncertain of the direction of their lives and wavering in their allegiance to any definite course of thought or action, Professor Pike lived serenely, a Stoic sage in a modern world. His well-chosen library of two thousand volumes, which through the years had given sustenance to his spirit and food for his thought, he bequeathed to the University. Part of it will be housed, as he had wished, in the Arthur Upson Room, perhaps to inspire a choice spirit of the generations still to come to seek after the wisdom which he had made his own.

WILLIAM THOMAS RYAN

1882-1939

William Thomas Ryan, professor of electrical engineering, died February 5, 1939.

Professor Ryan was born in Joyce, Iowa, February 28, 1882. He prepared for college at his local high school and in the fall of 1901 entered the University of Minnesota, from which he graduated, with a degree in electrical engineering, in 1905. During the following two years he was connected with the Westinghouse Company, but in December, 1906, he returned to the University as an instructor in electrical engineering. He was made assistant professor in 1909, associate professor in 1919, and professor in 1923, a position he held at the time of his death.

When Professor Ryan became a member of the university staff in December, 1906, the Department of Electrical Engineering was young and he was therefore one of the pioneers who helped to initiate and to guide the policies of the department during its formative years. He was a teacher of outstanding merit. His scientific activities outside the classroom were extensive. He served on several occasions as expert adviser for public utility corporations, was a frequent contributor to various engineering journals, such as the *Electric World*, *Power and the Engineer*, *Popular Electricity*, and was the author of several important books dealing with the theoretical and practical aspects of electricity, *Electrical Machinery*, two volumes, 1912-13, *Design of Electrical Machinery*, 1913, *Continuous and Alternating Current*, 1915. He was a member of Theta Xi, academic fraternity, and of three honorary scientific and engineering societies: Sigma Xi, Tau Beta Pi, and Eta Kappa Nu, and of several engineering societies: the American Institute of Electrical Engineers, of which he was vice-president in 1928-29; the Engineering Club of Minneapolis, president in 1923; of the Minnesota Federation of Architects and Engineers Societies, president in 1925; of the Society for the Promotion of Engineering Education, and of the North Central Electrical Association. From 1923 until his death he acted as adviser to the Minnesota Tax Commission, supervising the valuation of public properties.

Thus has passed another colleague who had devoted all his active and productive years to the service of this University and who by his vision and energy helped to make it what it is.

DAVID FERDINAND SWENSON

1876-1940

On February 11, 1940, David Ferdinand Swenson, professor of philosophy, died.

Professor Swenson was born in Sweden, October 29, 1876, the son of Gustaf F. and Augusta Maria Swenson, who came to this country in 1882 and settled in Minneapolis. His education was gained in the public schools of Minneapolis and in this University which he entered in 1893 as a student in the Department of Engineering. He soon realized that the Arts College was better suited to his tastes and needs and it was here that he spent the years 1894-98 as an undergraduate, receiving the bachelor of science degree in 1898 and winning election to Sigma Xi and Phi Beta Kappa. Mathematics and philosophy were the core of his studies. The rigorous procedure of the former appealed to his logical mind, eager to pierce to the fundamentals of reasoning, to secure a firm grip, and to erect a dependable superstructure. It was only gradually that he settled upon philosophy as his major interest.

In 1901 Professor Swenson was appointed instructor in philosophy, became assistant professor in 1906, associate professor in 1913, and professor in 1917. He held this rank together with the chairmanship of the department, at various times and after Professor Norman Wilde's retirement in 1936, until his death, a long period of service, interrupted only by his appointment for the year 1920-21 as visiting professor of philosophy at the College of the City of New York.

The chief influences which moulded Professor Swenson's philosophic thinking were the ideas of Socrates, as expounded by Plato in his *Dialogues*, and Aristotle, for he learned from them what was to become the very center of his own teaching, that philosophy is a reflective restatement of common sense. His guiding spirit, however, was the Danish philosopher, Søren Kierkegaard. To him he owed not merely the major reinforcement of his religious faith but also many of his views on ethics, on esthetics, and, with adaptations, on contemporary social problems. From 1901, when Professor Swenson came by chance upon a volume by Kierkegaard, down to the very end of his life he worked, with some interruptions due chiefly to ill-health, upon a translation of the many volumes written by that philosopher. Only a small portion of this work, acknowledged as the ablest in America and among the ablest in the world, has been published, but arrangements are now under way for the completion and publication of the manuscript which he left. His publications, dealing with Kierkegaard and his work, embrace the translation of the *Philosophical Fragments*, with an Introductory Essay, Princeton University Press, 1936, an Introduction to Eduard Geismar's volume on Kierkegaard, Augsburg Publishing House, 1937, and a paper on the existential philosophy of Kierkegaard, Volume XLIX, in *Ethics*, April, 1939.

Rather, however, was it the spoken word of living teaching that Professor Swenson's influence went out for "he had the gift," as one of his former students wrote during his last illness, "of lifting the spirit, of taking it into creative realms of thought."

JOHN ARNOLD URNER

1895-1938

Dr. John Arnold Urner was born in Joliet, Montana, on September 20, 1895. He died on July 15, 1938.

In 1919 Dr. Urner graduated with honors from the University of Washington. He then entered the Medical School of the University of Minnesota and throughout the four-year curriculum was first in his class. The bachelor of medicine degree was conferred upon him in 1923. He was made doctor of medicine in 1924, after having served an internship at the Minneapolis General Hospital. In recognition of his high scholastic attainment he was elected to the honorary medical society, Alpha Omega Alpha. On January 10, 1926, he commenced his service as a teaching fellow in the Department of Obstetrics and Gynecology of the University of Minnesota. During this period he carried on an important study of

"The effect of Vitamin E deficiency upon intrauterine development and the changes in the mammary gland of the albino rat." This was the title of his Ph.D. thesis, submitted in 1929. On October 1, 1929, he was appointed assistant professor, and three years later, associate professor in the Department of Obstetrics and Gynecology of the University of Minnesota. During this period and until his fatal illness he served full time at the Minneapolis General Hospital.

Dr. Urner was a member of the American Medical Association, the American College of Surgeons, and the American Board of Obstetrics and Gynecology.

Dr. Urner made a number of valuable contributions to the science of obstetrics and gynecology. These concerned, in particular, the relation of vitamins in pregnancy, and the improvement of analgesia during labor. He also reported important observations regarding the diagnosis of premature separation of the placenta.

Those who knew and worked with him have vivid memories of his kindness and humanity. His tireless service to the patients of the Minneapolis General Hospital earned him the admiration and respect of all those who were in contact with him.

CHARLES BENJAMIN WRIGHT

1876-1940

Charles Benjamin Wright, clinical professor of medicine in the Medical School of the University of Minnesota, died on May 31, 1940.

Dr. Wright was born in Ontario, Canada, on November 3, 1876. His medical education was received at Johns Hopkins University, from which he received his M.D. degree in 1902. He later studied abroad.

Dr. Wright joined the faculty of the University, as instructor in medicine, on August 1, 1916. He became an assistant professor in 1921, and an associate professor in 1927. In 1935 he received promotion to a full professorship.

Dr. Wright was a trustee of the American Medical Association for many years, and was an outstanding leader in his profession. He took an active interest in the Hennepin County Medical Society, the Minnesota State Medical Association, and the Minnesota Academy of Medicine. He was president of the county medical organization in 1924, and of the state association in 1928. Only a month before his death he received the distinguished service medal of the State Medical Association at its convention in Rochester. During the World War, Dr. Wright was a member of the state advisory draft board. He had also served as chairman of the legislative committee of the Hennepin County Medical Society, and as a member of its executive committee.

Brilliant scholar, respected leader, and high-minded exemplar of his profession—such a man is far too rare, and his passing is the cause of deep regret.

**EDUCATIONAL, SCIENTIFIC, AND RESEARCH
ACHIEVEMENTS**

EDUCATIONAL, SCIENTIFIC, AND RESEARCH ACHIEVEMENTS

Administration.—Guy Stanton Ford was elected sixth president of the University of Minnesota on October 19, 1938. He was awarded the honorary L.H.D. degree by the University of Rochester in 1938; the honorary LL.D. degree by the University of Michigan in 1939; and the honorary Litt.D. degree by Columbia University in 1939. He was elected to membership in Kappa Delta Pi (Laureate Chapter), Gamma Sigma Delta, Minnesota Academy of Science, Society of American Historians, American Philosophical Society, College of Electors of the Hall of Fame, and to associate membership in the American Association of University Professors. In 1938 he was elected to honorary membership in the University of Minnesota class of 1913. He was named honorary vice-president of the Minnesota Public Health Association. He is a member of the Advisory Committee of the Minnesota Congress of Parents and Teachers; of the Educators' Sponsoring Committee of Phi Beta Kappa; of the Anniversary Enrolment Committee of Columbia University; of the National Committee for Music Appreciation; of the Endorsement Committee of Town Hall Inc.; of the National Reception Committee for Dr. Chaim Weizmann, president of the Jewish Agency for Palestine; and of the National Committee of Endorsement of the Carl Schurz Memorial Foundation. He is a sponsor of the National Gallery of the American Indian.

Malcolm M. Willey served as a member of the Committee on Social Science Personnel of the Social Science Research Council, 1938-40; as member of the special committee on accrediting procedures of the North Central Association of Colleges and Secondary Schools, 1939-40; as member of the Committee on the Dissemination of Research Results of the Social Science Research Council, 1939-40; and as member of the Committee on Publicity of the American Sociological Society, 1938-40.

University of Minnesota Press.—Jane E. McCarthy was elected to membership in the American Institute of Graphic Arts. She is the designer of two books selected by the American Institute of Graphic Arts as among the "Fifty Books of 1940."

Minnesota Museum of Natural History.—Thomas Sadler Roberts received the honorary degree of doctor of science from the University of Minnesota in June, 1940.

Student Personnel Co-ordination Service.—Edmund G. Williamson served as a member of the Committee on Student Personnel Work, the Advisory Committee for the National Sophomore Culture Testing Program, and the Committee on Revision of Cumulative Record Card Used in High Schools and Colleges, all of the American Council on Education. He is a member of the Executive Committee of the American College Personnel Association and Consultant on Personnel Problems, American Council on Education, Commission on Teacher Education. He is coeditor of the section on Student Personnel Work in Colleges and Universities, *Encyclopedia of Educational Research*. He was elected president of the Minnesota Society for Applied Psychology, 1939-40.

University Testing Bureau.—John G. Darley was named as a member of the Editorial Board, *Journal of Educational Psychology*. He served as chairman of a subcommittee of the American Association for Applied Psychology, 1938-39, and was named chairman of the Research Committee, American College Personnel Association for 1940-41. He was elected president of the Minnesota Society for Applied Psychology for 1940-41.

University Art Gallery.—Mrs. Ruth E. Lawrence served as a member of the Federal Art Project Board, 1939-40; and as a member of the Minnesota Art Project Advisory Board, 1939-40. She was named as honorary member of the United American Artists Advisory Council.

College of Science, Literature, and the Arts.—Ernst C. Abbe is the recipient of research grants from the American Academy of Arts and Sciences, the Penrose Fund of the American Philosophical Society, Smithsonian Institution, and the Bache Fund of the National Academy of Sciences for a botanical expedition to Hudson Bay.

William Anderson served as a member of the Committee on Public Administration of the Social Science Research Council; he has been committee chairman since 1939. He is chairman of the Endowment Committee of the American Political Science Association and a member of the Board of Editors, *American Political Science Review*. He is a member of the Executive Council, American Society for Public Administration.

Thomas F. Barnhart is a member of the Committee on Awards, National Editorial Association.

Francis B. Barton represented the University at the conference on Inter-American Relations in the Field of Education, sponsored by the Department of State at Washington, 1940.

Joseph W. Beach is a member of the Editorial Committee of the *Publications of the Modern Language Association of America*, 1937-44.

Raymond W. Brink served as trustee and was elected vice-president and member of the Executive Committee of the Mathematical Association of America.

J. William Buchta was elected president of the Minnesota Academy of Science, 1940-41.

George O. Burr served as chairman of Biological Chemists, American Chemical Society, 1939-40. He is the recipient of research grants from the National Live Stock and Meat Board, Hormel Foundation, and the Rockefeller Foundation.

William S. Carlson is the recipient of the National Research Council grant to study peripheral vision of civilian pilots in relation to landing.

Ralph D. Casey served as a member of the National Council on Professional Education for Journalism. He is editor of the *Journalism Quarterly*.

F. Stuart Chapin was awarded the "University Medal for Excellence," Columbia University, June, 1940. He is a member of the Committee on Hygiene of Housing, American Public Health Association, and a member of the Committee on Instruction and Research in Housing, National Association of Housing Officials.

Mitchell V. Charnley is managing editor of the *Journalism Quarterly*.

William G. Clark is the recipient of research grants from the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the Scripps Metabolic Clinic.

Richard M. Elliott is a member of the Social Science Research Council Committee on Grants-in-Aid.

Joe O. Embry was elected president of the Minnesota Chapter of the American Association of Teachers of French.

William H. Emmons served on the Committee on Mining Geology, American Institute of Mining Engineering. He is associate editor of the *Journal of Geology*.

Anne F. Fenlason served as a member of the Committee on Extra-mural Education for Social Work, American Association of Schools of Social Work. She was director of the study on Social Work Education, Committee on Educational Research.

Mary Gold was elected chairman of the Minnesota District of the American Association of Medical Social Workers and as such is a member of the National Executive Committee.

Frank F. Grout was elected fellow of the Mineralogical Society.

John W. Gruner is a member of the Advisory Committee of the Geological Society of America.

Robert E. Harris was the recipient of the Interdisciplinary Fellowship, Carnegie Corporation, a grant-in-aid for study in the Department of Anthropology at Columbia University.

John Heller is corresponding editor of *Classical Weekly*.

William T. Heron is the recipient of a grant from the Rockefeller Foundation for the continuation of study on bright and dull rats.

Dunham Jackson served as chairman of the subcommittee on research, American Mathematical Society.

Clifford Kirkpatrick was appointed sociology editor for Blakiston Company. He is a member of the Nominating Committee of the Mid-western Sociological Society and a member of the Research Committee, National Conference on Family Relations.

Evron M. Kirkpatrick was elected president of the Minnesota Federation of College Teachers, 1940-41.

C. Lowell Lees served on the Graduate Study Committee for the Theatre Division of the National Teachers of Speech.

Benjamin E. Lippincott was the recipient of a grant from the Social Science Research Council for a study of "Civil Liberties."

Howard P. Longstaff is the recipient of the Psychological Corporation special award for outstanding research in applied psychology.

Willem J. Luyten was the recipient of research grants from the American Academy of Arts and Sciences, the National Academy of Science, and the American Philosophical Society.

Tremaine McDowell served as secretary of the American Literature Group, Modern Language Association of America, and is a member of the Editorial Board of *American Literature*.

Elizabeth Eckhardt May is a member of the Board of the American Country Life Association and of the Committee on Leadership Training and the Program Committee of the National Association of Recreation Workers.

Elmer S. Miller was elected to membership in the Society for Experimental Biology and Medicine. He is the recipient of a research grant from the Rockefeller Foundation.

Lennox A. Mills was the recipient of a Social Science Research Council grant for research on the comparative study of American, British, and Dutch colonization in the Pacific.

Dwight E. Minnich is trustee and secretary of the Board of Trustees of Mt. Desert Island Biological Laboratory, Salsbury Cove, Maine.

Elio D. Monachesi serves on the Membership Committee of the American Sociological Society.

Ralph O. Nafziger served as a member of the National Council on Research in Journalism.

Marbury B. Ogle was re-elected a member of the Board of Directors, American Philological Association, and re-elected a member of the Executive Committee, Classical Association of the Middle West and South.

Clarence P. Oliver officially represented the University of Minnesota at the Seventh International Congress of Genetics held at Edinburgh, Scotland, August 23-30, 1939.

Donald G. Paterson is advisory editor, *Public Personnel Quarterly*.

Abe Pepinsky was elected to the Minnesota Academy of Science, 1940, and to the Iowa Academy of Science, 1939.

Anna von Helmholtz Phelan is a member of Delta Phi Lambda, honorary society for proficiency in writing, and is the recipient of the Delta Phi Lambda Award for 1940.

Helen U. Phillips is a member of the Executive Committee, American Association for the Study of Group Work. She is a member of the Board of Directors, Minnesota State Conference of Social Work, was chairman of the Group Work Division, 1939-40, and treasurer in 1940.

Harold S. Quigley served as chairman of the Executive Committee of the American Conference of Teachers of International Law and Related Subjects. He is a member of the American Co-ordinating Committee for International Studies, and a member of the American Council and Research Committee, Institute of Pacific Relations. He was invited to become director of the Geneva Research Centre for 1939-40. He is a member of the Editorial Board of the *Far Eastern Quarterly*.

Harlow Richardson served as western vice-chairman, Engineering College Magazines, Associated, and as national chairman beginning 1939.

Martin B. Ruud was elected vice-president of the Society for the Advancement of Scandinavian Studies. He is a member of the Editorial Board, Norwegian-American Historical Association.

Laurence Schmeckebier represented the University of Minnesota as a member of the Conference on Inter-American Relations sponsored by the Department of State, Washington, D.C., 1939.

Carlyle Scott is a member of the Executive Committee and a member of the New Membership Committee of the National Music Teachers' Association. He is a member of the Advisory Board of the National Committee for Music Appreciation.

Colbert Searles served as chairman of the Rotograph Committee for the Modern Language Association of America.

Alice Leahy Shea served as a member of the Executive Committee of the Association of Schools of Social Work, 1937-40.

Lester B. Shippee was elected vice-president of the Minnesota Historical Society.

Lloyd M. Short is a member of the Committee on Social Security of the Social Science Research Council and a member of the Advisory Council of the Minnesota Institute for Government Research. He is state correspondent for the *National Municipal Review*.

Raymond F. Sletto was awarded a post-doctoral research training fellowship by the Social Science Research Council. He is a member of the Social Research Committee of the American Sociological Society.

Joseph R. Starr was the recipient of a grant for the year 1939-40 from the Social Science Research Council.

Clinton R. Stauffer is a member of the Committee on Devonian Types of North America, Geological Society of America.

John T. Tate was elected president of the American Physical Society. He is chairman of the Governing Board and member of the Executive Committee of the American Institute of Physics. He served as a member of the Committee on Applied Physics, American Institute of Physics, and as a member of the Council of the American Physical Society. He is editor of *Physical Review* and *Review of Modern Physics*. He is the recipient of two research grants from the Rockefeller Foundation.

George A. Thiel is a member of the editorial staff, *American Bibliography of Economic Geology* and served on the editorial staff of the Minnesota Academy of Science.

Miles A. Tinker is the recipient of the National Research Council grant to study peripheral vision of Civil Aeronautics Authority civilian pilots in relation to landing.

Anthony L. Underhill was elected secretary of the Minnesota Section of the Mathematical Association of America.

Gertrude Vaile served as a member of the Curriculum Committee and was chairman of the subcommittee on rural materials of the American Association of Schools of Social Work. She was a member of the Legislative Committee, Minnesota State Conference of Social Work, for 1938-40.

George B. Vold was named a member of the Executive Committee of the Mid-west Sociological Society, 1939-40. He was a member of the Editorial Committee for the preparation of *Casework Handbook* for the American Prison Association.

Institute of Technology.—Frederic Bass is a member of the Committee on Professional Objectives, A.S.C.E., 1939-40.

John J. Craig was appointed a member of the Committee on Eastern Magnetite Mining and Milling Methods, American Institute of Mining and Metallurgical Engineers.

Edward W. Davis was elected vice-president of the Minnesota Chapter of Sigma Xi for the academic year 1939-40. He received the Modern Pioneer's Award from the National Association of Manufacturers, 1940.

Carl A. Herrick was elected chairman of the Minnesota Section of the Society for the Promotion of Engineering Education, 1940-41.

Izaak M. Kolthoff was elected foreign member of the Royal Flemish Academy of Science, Literature, and Fine Arts of Belgium, 1939. He was knighted an Officer of the Order of Oranje Nassau by Queen Wilhelmina of the Netherlands in 1938. He was lecturer at scientific meetings in Copenhagen, Goteborg, Upsala, Helsinki, Abo (Turku), Ghent, and Leiden during the spring and summer of 1939. He is a member of the Committee on Standard Analytical Methods of the American Chemical Society, an advisory member of the American Pharmacopoeia Committee, and is associate editor of *Industrial and Engineering Chemistry*, Analytical Edition.

Fred C. Lang is vice chairman of the Executive Committee, member of the Department of Materials and Construction, and member of the Project Committee on Warping of Concrete Pavement Slabs of the Highway Research Board of the National Research Council.

Alexander S. Levens served as a member of the Executive Committee, National Drawing Division of the Society for the Promotion of Engineering Education. He was elected as honorary member to Chi Epsilon, honorary civil engineering fraternity.

Samuel C. Lind received the honorary degree of doctor of science from Washington and Lee University, 1939, and the honorary degree of doctor of science

from the University of Michigan, 1940. He was president-elect of the American Chemical Society, 1938-39, and president, 1939-40. He is a member of the Fellowship Awards Committee and also of the Committee on Catalysis, Division of Chemistry and Chemical Technology for the National Research Council. He is associate editor of the *Scientific Monographs* of the American Chemical Society, and editor of the *Journal of Physical Chemistry*.

Robert S. Livingston was the recipient of the Lalor Fellowship, 1938-39.

Frank H. MacDougall served as councilor of the American Chemical Society.

Forrest E. Miller was elected secretary of the Minnesota Section of the Society for the Promotion of Engineering Education, 1939-40.

George H. Montillon served as councilor of the Minnesota Section, American Chemical Society, 1939-40.

Edgar L. Piret is recipient of a research grant from George A. Hormel Packing Company.

George C. Priester is an honorary member of the National Association of Power Engineers.

Lloyd H. Reyerson served as chairman of the Colloid Division, American Chemical Society, 1939.

Edward C. Ritchell is recipient of a research grant from George A. Hormel Packing Company.

Frank B. Rowley was chairman of the Committee on Atmospheric Dust, American Society of Heating and Ventilating Engineers. In January, 1939, he was awarded the F. Paul Anderson Medal for attainments in the field of thermal research, American Society of Heating and Ventilating Engineers.

Lee Irvin Smith is a member of the Board of Editors, *Journal of Organic Chemistry*; a member of the Board of Editors, *Organic Syntheses*; and associate editor of the *Journal of the American Chemical Society*.

Arthur E. Stoppel co-operated with Committee D-3-VII of the American Society for Testing Materials in connection with an investigation of gas analysis apparatus and methods.

Lorenz G. Straub is chairman of the Committee on Applied Hydraulics, Society for the Promotion of Engineering Education, 1938-39; chairman, Committee on Dynamics of Streams, American Geophysical Union, 1939-40; chairman, Committee on Flood-Waves, and member of Committee on Sedimentation, National Research Council, 1939-40; American member of the Board of Directors, International Association for Hydraulic Structures Research, 1938-40; reporter general, International Commission of Potamology, 1938-39; member of the Committee on Hydraulic Research, American Society of Civil Engineers and editor-in-chief of the society's *Manual on Hydraulic Laboratory Studies*, 1938-40. He was the recipient of research grants for three hydraulic projects from the American Society of Civil Engineers and Engineering Foundation. He was elected president of the Northwestern Section, American Society of Civil Engineers, 1938; president of the Seventh District Association of the same organization, 1938-39; and vice-president of the Minnesota Federation of Architectural and Engineering Societies, 1940. He serves as councilor to the Society for the Promotion of Engineering Education and is Executive Committee member of the Civil Engineering Division, 1939-40. He is secretary-treasurer and member of the Executive Committee of the Minnesota Section, American Society of Mechanical Engineers, 1939-40.

Department of Agriculture.—William H. Alderman served as chairman of the Committee on Redrafting the Constitution and By-laws of the American Society for Horticultural Science, and as chairman of the Committee To Study Publication Policy of the American Society for Horticultural Science.

Edward W. Aiton is a member of the Committee on Radio, American Association of Agricultural College Editors.

Frederick J. Alway was elected president of the American Society of Agronomy.

Parker O. Anderson is senior member of the Society of American Foresters and a member of Epsilon Phi Sigma. He is a member of the Minnesota Academy of Science. He was elected president of the Minnesota Forestry Association and is director of the Wildlife Federation of America. He was appointed vice-chairman of the Minnesota Section of the Society of American Foresters and serves as a member of the Private Forestry Committee of the same organization. He is director of the Central States Forestry Congress.

Clyde H. Bailey is a member of the Committee on Research in Industry, National Research Council, 1939-40. He was appointed a member of the Executive

Committee and Program Committee, and chairman of the Special Committee on Cereal Chemistry Research Institutes, American Association of Cereal Chemists. The American Association of Cereal Chemists presented him with an illuminated plaque for his services as national president in 1938, and as editor-in-chief of *Cereal Chemistry*, 1924-31.

David R. Briggs was elected vice-chairman of the Minnesota Section, American Chemical Society, 1938-39.

Clara M. Brown served as adviser for the *Journal of Home Economics* and is a reviewer for the *Encyclopedia of Educational Research*. She was elected a fellow of the American Association for the Advancement of Science.

Randolph M. Brown served as member of the Committee on Forest Mensuration Terminology, Society of American Foresters, 1939-40.

Thomas H. Canfield was elected president of Gamma Alpha for 1939-40.

Jonas J. Christensen served as councilor for the American Phytopathological Society, 1937-39. He is a member of the Committee of Scientific Advisers for the Co-ordination of Research of the Flax Institute of the United States.

Spencer B. Cleland is secretary of the Board of Trustees of Alpha Zeta.

Walter C. Coffey served as chairman of the Committee on Projects and Correlation of Research, Association of Land-Grant Colleges and Universities, 1938; as chairman of the Informal Committee of Directors of Experiment Stations of the North Central States, Association of Land-Grant Colleges and Universities. He is a member of the Committee on Instruction in Agriculture, Association of Land-Grant Colleges and Universities, and a member of the Advisory Committee of Deans from Five State Agricultural Colleges for the 1940 Fellowship Program, Danforth Foundation. He is vice-president of the Association of Land-Grant Colleges and Universities and is a member of the Board of Trustees, Hamline University.

Willes B. Combs served as chairman of the subcommittee on condensed milk and milk powder of the American Dairy Science Association. He is a member of the Committee on Quality Control of Milk and Milk Products of the American Dairy Science Association.

Samuel T. Coulter was elected secretary of the Manufacturing Section, American Dairy Science Association for 1939-40. He is a member of the General Committee on Chemical Methods for the Analysis of Milk and Dairy Products, chairman of the subcommittee on analysis of butter, and member of the subcommittee on methods of measuring the color of milk, all of the American Dairy Science Association.

Ralph F. Crim is secretary of the Minnesota Crop Improvement Association and is editor of their publication, *Minnesota Seed Grower*. He is director of the International Crop Improvement Association and chairman of the Small Grain Committee of that association.

Eva G. Donelson was elected president of the Minnesota Home Economics Association.

Austin A. Dowell is a member of the Livestock Marketing Committee of the Association of Land-Grant Colleges and Universities in the North Central States. He was elected vice-president of the Minnesota Statistical Association for 1939-40.

Arthur E. Engebretson is a member of the Board of Directors, Minnesota Wildlife Federation.

Theodore A. Erickson is honorary life member of the Minnesota State Horticultural Society and of the Minnesota State Agricultural Society. He is editor of the 4-H Club page of *Minnesota Horticulturist*.

Reuel Fenstermacher was elected to membership in Phi Zeta, honor society in veterinary medicine, 1940. He was appointed a member of the Committee on Infectious Diseases, Minnesota State Veterinary Medical Society.

Evan F. Ferrin is a member of the Board of Directors and of the Executive Committee of the National Swine Growers' Association.

Belle O. Fish is a member of the Executive Committee of the Minnesota Home Economics Association.

James B. Fitch served as a member of the Cattle Classification Committee of the American Jersey Cattle Club and as a member of the Necrology Committee of the American Dairy Science Association.

Edward M. Freeman was elected national president of Gamma Sigma Delta for 1938-40.

William F. Geddes was appointed a member of the following committees of the American Association of Cereal Chemists: Program Committee, Executive Committee, Special Committee on Cereal Chemistry Research Institutes, and Committee on Revision of Cereal Laboratory Methods. He was presented with an illuminated plaque by the American Association of Cereal Chemists in 1940 in recognition of his services as national president of the association during 1939. He is associate editor of *Cereal Chemistry*.

Harriet Goldstein is state chairman of the Related Art Committee of Textiles and Clothing Division, American Home Economics Association.

Ross A. Gortner was elected honorary member of the Eugene Field Society for excellence of literary form of the monograph *Selected Topics in Colloid Chemistry*. The Executive Committee of the American Association for the Advancement of Science elected him a "section committeeman" from Section C of the association for the term 1940-43. He was elected a member of the following committees of the National Research Council: Committee on Colloid Science, Committee on Biochemical Nomenclature, Committee on Chemistry of the Proteins, and Committee on Organic Chemical Nomenclature. He is assistant editor of *Chemical Abstracts*.

Willard W. Green was elected a fellow of the American Association for the Advancement of Science, 1940.

Harold L. Harris is secretary-treasurer of the American Association of Agricultural College Editors and editor of the association house organ. He is a member of the Exhibits Committee of the same organization.

Helen Hart is associate editor of *Phytopathology*.

Rodney B. Harvey was awarded the honorary degree, doctor of science, at Purdue University, 1939.

Herbert K. Hayes is consulting crops editor for the *Journal of the American Society of Agronomy*.

Richard Hull is adviser to the Federal Radio Education Committee.

Forrest R. Immer is a member of the Committee on Bibliography of Field Experiments, American Society of Agronomy.

Oscar B. Jesness served as a member of the Executive Committee of the American Farm Economic Association, 1938-40.

Alfred G. Karlson was appointed acting editor of the Section of Infectious and Other Diseases of Lower Animals in *Biological Abstracts*. He was elected a member of Gamma Alpha, and was elected a fellow of the American Association for the Advancement of Science, 1940.

Howard C. H. Kernkamp was elected secretary-treasurer of the Minnesota State Veterinary Medical Society, 1939-40. He was appointed chairman of the Committee on Nomenclature and Vital Statistics of the American Veterinary Medical Association, 1939-40, and chairman of the Committee on Transmissible Diseases of Swine of the United States Livestock Sanitary Association, 1939-40. He was elected to membership in Phi Zeta, honor society in veterinary medicine, 1940.

Anna M. Krost is national councilor, Minnesota Home Economics Association. She is a member of the Executive Board of the Minnesota Council for Adult Education.

Raymond H. Landon was elected president of the Minnesota Archeological Society, 1939.

Harold Macy is chairman of the Committee on Bacteriological Methods for Analysis of Milk and Dairy Products and a member of the Committee on Quality Improvement of Dairy Products, American Dairy Science Association. He is a member of the Board of Directors of the American Dairy Science Association and was elected president of the North Central Branch of the Society of American Bacteriologists. He was chosen by the Committee on Journal Management, and the Board of Directors of the American Dairy Science Association to prepare a twenty-year index of the *Journal of Dairy Science*.

Thomas M. McCall is a member of the American Academy of Science, and of the Minnesota Academy of Science.

Wylle B. McNeal served as chairman of the Syllabus Committee, American Home Economics Association.

Paul P. Merritt was elected president of the Northwest Section of the American Association of Cereal Chemists for 1939.

Clarence E. Mickel was elected secretary-treasurer of the Entomological Society of America.

Matthew B. Moore served as chairman of the Committee for the Co-ordination in Cereal and Vegetable Seed Treatment Research, American Phytopathological Society.

Lowry Nelson was elected to membership in the Executive Committee of the American Sociological Society. He served as the United States member of the Permanent Agricultural Committee, International Labor Office, 1938-40, and attended the Conference of American States in Havana, Cuba, in November, 1939. He was elected a fellow by the American Association for the Advancement of Science in 1940. He served as a member of a conference on research in agricultural labor for the Social Science Research Council in Berkeley, California, and on a committee on the Economic Status of Rural Teachers of the National Education Association, 1938-39. He was editor of *Rural Sociology* in 1939.

Leroy S. Palmer is the recipient of the Borden Award for fundamental contributions to the chemistry of milk presented by the American Chemical Society, 1939. He is associate editor of the *Journal of Dairy Science*.

Walter H. Peters was elected vice-president of the American Society of Animal Production, 1940.

William E. Petersen was elected vice-chairman, Production Section, of the American Dairy Science Association for 1939-40 and becomes chairman for 1940-41. He is chairman of the Committee on Standard Methods of Experimentation, Production Section, American Dairy Science Association, and member of the Committee on Education, American Society of Animal Production. He was elected honorary member of the Eugene Field Society.

Ethel L. Phelps is chairman of the Committee on Chemistry Objectives for the Home Economics Section of the Association of Land-Grant Colleges and Universities.

George A. Pond was elected vice-president of the American Farm Economic Association for 1939-40. He is secretary-treasurer of the Minnesota Farm Managers' Association.

William A. Riley is editor for Medical Entomology, *Journal of Parasitology*.

Harry B. Roe served as chairman of the Minnesota Section of the Society for the Promotion of Engineering Education, and as chairman of the Meetings Committee, American Society of Agricultural Engineers, 1939.

Ella J. Rose is advisory editor, *Journal of Home Economics*. She served as co-chairman of the Curriculum Committee, U. S. Office of Education from 1935-40. She is co-operating abstractor for *Educational Abstracts*.

Arthur G. Ruggles is a member of the Editorial Board of the *Journal of Economic Entomology*. He was elected president of the International Great Plains Conference of Entomologists.

W. Martin Sandstrom was elected national president of Phi Lambda Upsilon, honorary chemical society, for 1938-41. He is chairman of the Minnesota Section of the American Chemical Society, 1939-40.

Henry Schmitz is editor-in-chief of the *Journal of Forestry*, 1938-40. He is a member of the Committee on Accrediting of Forestry Schools and of the Committee on Civil Service for the Society of American Foresters. He was elected a fellow by the Society of American Foresters, January, 1940.

Harold R. Searles is a member of the Dairy Products Quality Committee of the American Dairy Science Association. He is dairy editor of *The Farmer*.

Hubert J. Sloan served as chairman of the Minnesota Committee of the World's Poultry Congress, 1938-39. He was the recipient of the Hiram Walker special research grant in 1938-40.

Elvin C. Stakman served as chairman of the Interdivisional Committee of the National Research Council on Aerobiology; of the Interdivisional Committee of the National Research Council on Genetics of Pathogenic Organisms; of the Publication Committee, *The Genetics of Pathogenic Organisms* (Publication of the American Association for the Advancement of Science, No. 12); of the Committee on Donations and Legacies, American Phytopathological Society; and of the Program Committee for the Phytopathological Subsection of the Sixth Pacific Science Congress. He is a member of the Committee on Extension Work and Relations, American Phytopathological Society; of the Committee of Scientific Advisers for Co-ordination of Research of the Flax Institute of the United States. He was elected president of the Phytopathological Section, Seventh International Botanical Congress, to be held in Stockholm, Sweden, 1940 (not held because of

the war). In January, 1939, he was awarded a personal grant for work on aerobiology, Division of Biology and Agriculture, National Research Council by the Carnegie Foundation. He is the American editor of *Phytopathologische Zeitschrift*. He was elected to membership in the American Philosophical Society and the Washington Academy of Sciences.

Gustav Swanson was elected treasurer of the Wilson Ornithological Society. He is a member of the Committee on Conservation of Land Mammals of the American Society of Mammalogists.

Ian W. Tervet is co-ordinator for *Chronica Botanica*.

Warren C. Waite serves as a member of the Editorial Council of the *Journal of Farm Economics*.

Arthur N. Wilcox was elected president of the Great Plains Section of the American Society for Horticultural Science, 1939-40. He served as chairman of the Committee on the Preservation of Natural Conditions, Minnesota Academy of Science, 1938-41.

Harold K. Wilson is chairman of the Students Section Committee, American Society of Agronomy. He was elected secretary-treasurer of the Minnesota Academy of Science and is editor of its proceedings.

Laurence M. Winters was elected a fellow of the American Association for the Advancement of Science, 1939. In August, 1939, he officially represented the University of Minnesota at the Seventh International Congress of Genetics held at Edinburgh, Scotland.

Medical School.—John M. Adams was elected secretary-treasurer of the Northwestern Pediatrics Society, 1939-40.

Raymond M. Amberg served as chairman of the Out-patient Section of the American Hospital Association. In 1940 he was elected president of the Minnesota State Hospital Association and was named regent of the American College of Hospital Administrators.

L. Earle Arnow was elected to the American Society of Biological Chemists.

Elexious T. Bell served as a member of the Executive Council of the American Association for Cancer Research.

Raymond N. Bieter was chairman of the Membership Committee of the American Society for Pharmacology and Experimental Therapeutics, 1939-40; he served on the Membership Committee of the Society for Experimental Biology and Medicine, 1939-40. In 1938-40 he received a research grant from the Division of Plant Exploration and Introduction, Bureau of Plant Industry, United States Department of Agriculture, to study the pharmacology of the native Indian medicinal plants.

Edward A. Boyden is a member of the Executive Committee of the American Association of Anatomists. He is managing editor of the *Anatomical Record*.

Ruth E. Boynton was elected president of the American Student Health Association. She serves as a member of the Advisory Board, Minnesota Mental Hygiene Society, and as a member of the Legislative and Health Committees of the Minnesota State Conference on Social Work.

John C. Brown is a member of the Minnesota Academy of Medicine and of the American Academy of Ophthalmology and Otolaryngology. He is past president of the Minnesota Academy of Ophthalmology and Otolaryngology.

Frank E. Burch served as a member of the Council, American Academy of Ophthalmology and Otolaryngology. He was visiting professor at the Peiping Union Medical College, Peiping, China, from January to June, 1940.

Katharine J. Densford served as first vice-president of the American Nurses' Association and as chairman of the Committee of the American Nurses' Association to work with the American College of Surgeons.

Harold S. Diehl is a member of the National Advisory Health Council of the United States Public Health Service and chairman of the Section on Preventive and Industrial Medicine and Public Health, American Medical Association. He served as director of studies, American Youth Commission.

A. Louis Dippel was awarded the American Medical Association certificate of merit, Group I, St. Louis Session, 1939, and a similar certificate from the American Roentgen Ray Society, 1939. He was appointed as consultant to the Children's Bureau, United States Department of Labor, to make a special study in the field of X-ray pelvimetry.

Hal Downey is American editor of *Folia Haematologica*.

Robert G. Green is the recipient of a research grant in collaboration with the Minnesota Department of Conservation for wildlife disease investigation, and also of a research grant in collaboration with the Bureau of Biological Survey for wildlife disease investigation, 1938-39. He was awarded a grant from the Carnegie Institution of Washington for research on viruses, 1939. In 1938 he delivered lectures at Oxford and Cambridge Universities, England, on wildlife diseases.

H. Orin Halvorson served as a member of the Hormel Research Foundation Committee, 1938-40. He was director of the Minnesota Cannery Association Committee for the study of canning waste treatment, 1938-40. In 1940 he received the Modern Pioneers Award.

Arild E. Hansen is the recipient of a grant from Mead Johnson and Company for research on the relation of fat metabolism to eczema. He was elected vice-president of the Society for Pediatric Research, 1939-40.

Erling Hansen served as a member of the Council, and as publicity secretary of the American Academy of Ophthalmology and Otolaryngology.

Arthur T. Henrici was elected vice-president in 1938, and president in 1939 of the Society of American Bacteriologists. He was appointed associate editor of the *Journal of Bacteriology* in 1939. He served as vice-president of Section VI (Fungi and Fungus Diseases) of the Third International Microbiological Congress in 1939.

Arthur D. Hirschfelder served as a member of the subcommittee on scope, the subcommittee on therapeutics and pharmacodynamics, the subcommittee on biological assays, and the General Committee of Revision of the Eleventh Decennial Revision of the Pharmacopoeia of the United States.

Clarence M. Jackson is chairman of the Committee on Anatomical Nomenclature of the American Association of Anatomists. He is a member of the Advisory Board of the Wistar Institute of Anatomy and Biology, Philadelphia. Dr. Jackson is also member and president of the Minnesota State Board of Examiners in the Basic Sciences.

Herman Kabat is the recipient of a grant from the American Medical Association for research on traumatic shock.

Arthur C. Kerkhof serves as a member of the Heart Committee of the Minnesota State Medical Association.

Ancel Keys was the recipient of a grant from Frederick Stearns and Company for research on sympathico-mimetic drugs. He also received grants for studies on environmental factors on exercise, and from the Mexican government for expenses for cardiac research at Hospital de Ferrocarril.

Ida MacDonald was secretary of the Minnesota Nurses' Association.

J. Charnley McKinley was elected secretary-treasurer of the State Board of Examiners in the Basic Sciences.

Charles E. McLennan was awarded the Commonwealth Fund Fellowship for study at the University of Virginia, 1940-41.

Irvine McQuarrie was awarded an honorary fellowship by the American College of Dentists, 1938. He is a member of the Dental Research Committee of the American College of Dentists; member of the Advisory Board of the National League Against Epilepsy; member of the Council on Foods and Nutrition of the American Medical Association; member of the State Advisory Board of the Division of Services to Crippled Children. He is the recipient of a grant from Mead Johnson and Company for research on water and mineral metabolism in newly born infants. He was elected president of the Minnesota Pathologic Society, 1940. Dr. McQuarrie was visiting professor of pediatrics at the Peiping Union Medical College, Peiping, China, from December 15, 1939 to June 15, 1940. He delivered a series of five lectures on infant and child health in Honolulu, Hawaii, under the auspices of the Bureau of Maternal and Infant Hygiene of the Territory of Hawaii, 1940. In 1939 he also delivered, at McGill University, the annual lecture in neurology sponsored by the Montreal Neurological Association; the annual Sigma Xi lecture before members of the Sigma Xi in China, 1940; and the annual lecture at the convocation of the American College of Dentists in St. Louis, 1938.

John P. Medelmann was elected secretary-treasurer of the Minnesota Radiological Society, 1939-40.

Gordon K. Moe was elected to the Porter Fellowship of the American Physiological Society for the year 1940-41.

Russell Morse was elected vice-president of the Hennepin County Medical Society, 1939, and was elected president in 1940.

Horace Newhart is a member of the Committee of Consultants on Audiometers and Hearing Aids in the American Medical Association; a member of the group of past presidents of the American Academy of Ophthalmology and Otolaryngology; member of the Conference on Problems of Deafness called by the National Research Council, 1940; and chairman of the Committee on the Conservation of Hearing, American Academy of Ophthalmology and Otolaryngology and of the Minnesota State Medical Association.

Lucile Petry was treasurer of the National League of Nursing Education.

William T. Peyton was elected president of the Minnesota Surgical Society.

Andrew T. Rasmussen is chief examiner of the subsidiary board of the National Board of Medical Examiners.

Leo G. Rigler served as president of the Board of Trustees of the American Registry of X-Ray Technicians; he was elected president of the Minnesota Radiological Society, 1939; and was elected third vice-president of the Radiological Society of North America.

Virgil J. Schwartz is a fellow of the American College of Surgeons and is the holder of a certificate of the American Board of Otolaryngology.

John E. Skogland is the recipient of the George Chase Christian Memorial Scholarship (Harvard).

Albert V. Stoesser was the recipient of special research grants from the John and Mary R. Markle Foundation, the American Philosophical Society, and Mead Johnson and Company.

Maurice B. Visscher served as a member of the Executive Committee of the Section on Pathology and Physiology of the American Medical Association. He is associate editor of the *Annual Review of Physiology*. He is councilor of the American Physiological Society and a member of the National Research Council Committee on Medicine. He is the recipient of a grant from the Rockefeller Foundation for research on osmosis and of a grant for the establishment of the Sivertsen Cancer Research Fund.

Owen H. Wangenstein holds honorary membership in the Los Angeles Surgical Society and in the Tacoma Surgical Society. He is the recipient of a grant from the Committee on Scientific Research of the American Medical Association for research purposes. In January, 1939, he delivered the fifteenth Lewis Linn McArthur Lecture of the Frank Billings Foundation before the Institute of Medicine, Chicago. He, with Dr. Alton Ochsner, is editor of the journal, *Surgery*.

Cecil J. Watson was elected vice-president of the Minnesota Pathological Society. He is a member of the Educational Committee of the Minnesota Society of Internal Medicine and is counselor for the Central Society for Clinical Research.

Macnider Wetherby is recipient of a special research grant from Eli Lilly Company for the study of arthritis.

Earl H. Wood was elected to the National Research Council Fellowship for the year 1940-41.

School of Dentistry.—Wallace D. Armstrong is the recipient of a research grant from the American Medical Association to conduct studies on the calcification of bone.

Peter J. Brekhus was recipient of the William J. Gies Award for meritorious work in dental research, conferred by the American College of Dentists.

Carl O. Flagstad was elected secretary-treasurer of the American Association of Dental Schools.

Raymond E. Johnson was elected secretary of the American Academy of Periodontology.

William F. Lasby served as chairman of the Committee on Graduate Study, American Association of Dental Schools. He is regent of the American College of Dentists. He was elected to Phi Beta Kappa at Carleton College, and is a member of the International Association for Dental Research.

Charles E. Rudolph served as chairman of the Committee on Socio-Economic Studies of the Cost of Dental Service, American College of Dentists.

Law School.—Wilbur H. Cherry is president of the American Association of Law Schools, and is a member of the Board of Governors, Minnesota State Bar Association.

Everett Fraser is a member of the Committee on Legal Education of the Minnesota State Bar Association.

Edward G. Jennings presided at the Symposium on Taxation at the 1939 meeting of the Minnesota State Bar Association and served as chairman of the

Public Law Round Table at the 1939 meeting of the Association of American Law Schools.

Henry L. McClintock served as legal adviser to the Minnesota State Bar Association Committee on Labor Law and Social Security.

William L. Prosser is a member of the Committee on Comparative Negligence and Contribution between Tort-Feasors, Minnesota State Bar Association; a member of the National Council, Phi Delta Phi legal fraternity; member of the Executive Committee of the Order of the Coif; member of the Torts Round Table, Association of American Law Schools.

College of Pharmacy.—Ragnar Almin served as chairman of the Committee on Practical Pharmacy, as member of the Committee on Research, member of the Committee on Drug Standards, member of the Committee on U. S. Pharmacopoeial and National Formulary Revision, of the Minnesota State Pharmaceutical Association.

Gustav Bachman served as chairman of the Committee on U. S. Pharmacopoeial Revision and chairman of the Committee on Public Health of the Minnesota State Pharmaceutical Association.

George Crossen served as a member of the Committee on Drug Standards and the Committee on U. S. Pharmacopoeial and National Formulary Revision, Minnesota State Pharmaceutical Association.

Earl B. Fischer served as a member of the subcommittee on botany and pharmacognosy of the Committee on the National Formulary, 1940; as auxiliary member of the subcommittee on botany and pharmacognosy of the U. S. Pharmacopoeial Revision Committee, 1938-40; as chairman of the National Plant Science Seminar, presiding at its convention at Blue Ridge, North Carolina, 1939; as member of the Executive Council of the National Plant Science Seminar, 1938-40. He was local secretary of the National Plant Science Seminar in charge of arrangements for the convention, 1938. He served as chairman of the Northwest Branch of the American Pharmaceutical Association, 1938-40, and as chairman of the Minnesota State Pharmaceutical Association Committee on Drug Plant Culture, 1938-40.

Glenn L. Jenkins was a member of the Revision Committee and chairman of the subcommittee on chemicals of the National Formulary. He was elected for a ten-year term in December, 1939. He is chairman of the Executive Council of the American Pharmaceutical Association for 1940-41; member of the Revision Committee of the U. S. Pharmacopoeia, and in 1940 was elected for a ten-year term as chairman of the subcommittee on reagents and test solutions. He is associate editor of *Pharmaceutical Archives*, 1940-41.

Charles V. Netz is secretary of the Minnesota State Pharmaceutical Association and chairman of the Committee on Research.

Charles H. Rogers was elected president of the American Association of Colleges of Pharmacy, 1940. He was chairman of the House of Delegates of the American Pharmaceutical Association; member of the Committee for Revision of Constitution and By-Laws of the U. S. Pharmacopoeial Convention, Inc.; member of the Executive Committee of the American Association of Colleges of Pharmacy; and chairman of the Scientific and Practical Section of the Minnesota State Pharmaceutical Association.

College of Education.—Clifford P. Archer was elected president of the Minnesota Education Association for 1938-40. He is a member of the Affiliated Association and Legislative Committees of the National Education Association, and is consultant for the Educational Policies Commission. He served as chairman of the Committee of Teacher Training Groups at the North Central Association of Colleges and Secondary Schools Conference, chairman of the Committee on Agency Relations of the Minnesota Institutional Teacher Placement Associations, organized and served as chairman of the Minnesota Council on Educational Research, and is chairman of the Committee for the Institute for Improving Teaching Personnel. He is editor of Eta Chapter, Phi Delta Kappa *News Letter*.

Hubert Park Beck was acting chairman of the Educational Policies Committee, Minnesota Federation of College Teachers, 1938-39, and member of the Committee on Revision of the Constitution, Minnesota State Federation of Teachers, 1939-40.

Helma Berglund served as corresponding secretary of Delta Phi Delta.

Nelson L. Bossing served as a member of the Committee on Public Relations, Minnesota Education Association and in the Department of Secondary School

Teachers, National Education Association. He is director and chairman of the State Secondary School Curriculum Experimental Program, a member of the Committee of the State Association of Secondary School Principals, and a member of the Committee on the Certification Proposals of High School Principals, State Association of Secondary School Principals.

Theodore Brameld was appointed editor of the 1940 *Yearbook of the John Dewey Society*. He was elected state vice-president of the Minnesota Federation of Teachers.

Leo J. Brueckner served as chairman of the Board of Directors of the National Society for the Study of Education.

William S. Carlson was elected to the Executive Board of the National Association of Supervisors of Student Teachers. He is secretary of the Minnesota Association of Secondary School Principals.

Willis E. Dugan serves as a member of the Committee on Counseling of the National Vocational Guidance Association.

Marcia Edwards was elected president of the Personnel Section, Minnesota Education Association, 1938-40. She was secretary and treasurer of the Minnesota Society for Applied Psychology, 1939-40.

George F. Ekstrom served as a member of the editing and managing board of the *Agricultural Education Magazine*.

Albert M. Field is editor of a series of agricultural books published by the Webb Publishing Company of St. Paul. He is editor of the Methods Department, *Agricultural Education Magazine*. He served as chairman of a committee to carry out a special conference for supervising teachers under the sponsorship of the United States Office of Education and the University of Minnesota.

Palmer O. Johnson is one of the authors of the 1939 *Yearbook of the National Society of College Teachers of Education: The Study of College Instruction*. He is a member of the committee that prepared the *Review of Educational Research, Methods of Research in Education* for the American Educational Research Association, 1939.

T. Raymond McConnell is a trustee of Cornell College, Mt. Vernon, Iowa. He was elected vice-president of the American Educational Research Association and was appointed chairman of the Committee of the National Society for the Study of Education to prepare a yearbook on the psychology of learning.

Mervin G. Neale served as college examiner for the North Central Association of Colleges and Secondary Schools. He is a member of the Committee of the American Educational Research Association for the preparation of *Review of Educational Research*, Volume X, and a member of the National Council of Education of the National Education Association.

Hazel B. Nohavec was elected a member of the National Research Council of the Music Educators National Conference, and a member of the Board of Directors of the North Central Music Educators Conference. She was appointed a member of the National Research Committee, Mu Phi Epsilon, national honor music sorority; secretary-treasurer of the Minnesota Public School Music League; chairman of the National Committee on Teacher Education of the Music Educators National Conference; member of the Planning Committee for the Region II Music Clinic. She is a member of the Educational Policies Commission of the Minnesota Education Association; the Motion Picture Committee, Department of Secondary School Teachers, National Education Association; and the Board of Directors of the Minnesota Music Educators Association.

Felix Payant was appointed leader of the Art Education Division, Progressive Education Association Conference. He is a member of the Art Yearbook Committee of the National Society for the Study of Education, and is editorial writer for *Design*.

Wesley E. Peik was elected vice-president of the North Central Association of Colleges and Secondary Schools. He is president of the Professional Education of Teachers Section of the Minnesota Education Association. He is chairman of the North Central Association Committee on Publications, a member of the Board of Directors, Association of Municipal Universities; a member of the Regional Committee, Progressive Education Association; a member of the Executive Committee, Association of Colleges and Departments of Education; and a member of the Regional Committee on Certification of Teachers, North Central Association of Colleges and Secondary Schools. He is contributing editor of *Journal of Experimental Education*.

Shailer Peterson was elected to the National Association of Research in Science Teaching and to the American Association for the Advancement of Science. He served on the Committee on Testing, National Association of Research in Science Teaching, the Committee on Functional Outcomes, the Committee on Evaluation, and the Committee on Teacher Education of the National Education Association. He was chosen to "referee" articles for the *Journal of Chemical Education*.

Dora V. Smith was elected president of the National Conference on Research in the Teaching of English. She is chairman of the Committee on Basic Aims, National Council of Teachers of English, a member of the Nominating Committee of the American Educational Research Association, and Chairman of the Nominating Committee of the National Council of Teachers of English. She is a member of the Minnesota State Educational Policies Commission. She prepares annually the "Selected References on the Teaching of English" for *School Review* and the *Elementary School Journal*. At the request of Harvard University she prepared a chapter on the teaching of English for *Essays on the Teaching of English in Honor of the Retirement of Charles Swain Thomas*.

Tracy F. Tyler served as a member of the United States Office of Education Committee to prepare a teachers' manual and a students' manual for a teacher-training course in radio education. He was consultant on the American School of the Air for the Columbia Broadcasting System; chairman of the Radio Committee of the National Council for Social Studies; consultant to the Educational Policies Commission of the National Education Association; consultant to the Radio Committee, Minnesota Education Association. He was elected a member of Psi Chi, honorary psychology society.

Marvin J. Van Wagenen served as a member of the State Testing Committee of the Minnesota Council of School Executives, 1938-40.

Edgar B. Wesley served as a member of the Minnesota Resources Commission and as a member of the subcommittee on the *Minnesota Fact Book* of that commission. He is chairman of the Curriculum Committee, National Council for the Social Studies, and is a member of the Executive Board of *Social Education*. With Theodore C. Blegen, he is recipient of a grant for the preparation of a handbook for local historical workers.

C. Gilbert Wrenn was appointed an associate of the American Youth Commission, 1939; a consultant on Student Personnel of the Teacher Education Commission of the American Council on Education, 1939; educational consultant for Monticello College, 1939; a member of the Program Committee of the American College Personnel Association and chairman of that committee for 1939-40; chairman of the Planning Committee of the first and second Vocational Conferences on College Training of Recreational Leaders, 1939; member of the Section on Preparation of Guidance Workers and of the Program Committee of the National Vocational Guidance Association, 1940; member of the Executive Board of the American Association of Leisure Time Educators, 1939-40, and vice-president of the same organization in 1940; a member of the Editorial Advisory Board of *Occupations: Vocational Guidance Magazine*; member of the Individual Analysis Section of the National Vocational Guidance Association; and member of the Committee on Coordinating Faculty Counseling of the American College Personnel Association. He was elected a fellow of the American Association of Applied Psychologists.

Graduate School.—Theodore C. Blegen was elected vice-president of the Society of American Archivists. He is a member of the Advisory Council, *Dictionary of American History*.

Herbert M. Freundlich was elected honorary foreign member of the Chemical Society of London in February, 1938, and was elected a foreign member of the Royal Society of London in May, 1939.

Richard E. Scammon served as a member of the Advisory Committee of the Council of the Minnesota Institute of Governmental Research, 1938-40, and as a member of the International Committee on Embryological Nomenclature. He is the recipient of a grant from the Commonwealth Fund of New York for the study of human growth and developmental structure. He is associate editor of *American Journal of Physical Anthropology*, associate editor of *Child Development*, and associate editor of *Growth*.

School of Business Administration.—Roy G. Blakey received an honorary LL.D. from Drake University in June, 1940. He served as chairman of the

committee, committee member, and technical adviser on the following research projects: "Minnesota Income Study" sponsored by the Minnesota Resources Commission; "State Government Finance" sponsored by the Minnesota Resources Commission; "Investment Study" sponsored by the United States Department of Commerce, and the Minnesota Resources Commission; and "Preliminary Planning of University Study of Minnesota Income"—extension of the "Minnesota Income Study" project.

Frederic B. Garver received the honorary LL.D. degree from the University of Nebraska in June, 1939. He served as a member of the Executive Committee and of the Price Conference of the National Bureau of Economic Research.

Richard L. Kozelka served as director of research, Industrial Trends Committee, Minnesota Resources Commission, 1938-40, and served on the Technical Committee, Minnesota Income Study, of that commission.

Laurence R. Lunden received the honorary LL.D. degree from Luther College, Decorah, Iowa, in June, 1940. He is a member of the Advisory Conference on Financial Research and of the Bond Study Committee of the National Bureau of Economic Research.

Arthur W. Marget served as a member of the Exploratory Committee on Research in Fiscal Policy, National Bureau of Economic Research, 1938-40.

Bruce D. Mudgett served as a member of the Technical Committee acting in an advisory capacity to the "Minnesota Income Study." He also served as a member of the Special Appraisal Committee of the Social Science Research Council.

Russell A. Stevenson was president of the Conference of State University Schools of Business Administration, 1938-40, and was elected president of the Minnesota Statistical Association in 1940. He was chairman of the Committee on the Study of Business Education at the Collegiate Level of the American Association of Collegiate Schools of Business, 1938-40. He served as a member of the Committee on the Study of Industrial Trends in Minnesota, Minnesota Resources Commission, and as a member of the Universities-National Bureau Committee, National Bureau of Economic Research, 1938-40.

Arthur R. Upgren was director of research, Council on Foreign Relations and has made studies on "Economic Effects of the War upon the United States" and "The United States and International Economic Co-operation."

Dale Yoder is a member of the Editorial Board of *Advanced Management*.

Physical Education for Women.—Gertrude M. Baker was elected vice-president of the Central District of the American Association for Health, Physical Education, and Recreation, 1938-39. She served as consultant on progressive education on the secondary level for the Progressive Education Association, and was a member of the state committee to draw up standards for physical education, major and minor, 1938-40.

Catherine Snell served as a member of the Executive Board of the Administrative Measurements Section, American Association for Health, Physical Education, and Recreation, 1938-39.

Helen M. Starr served as chairman of the Health Section of the Central District of the American Association for Health, Physical Education, and Recreation, and as chairman of the Women's National Aquatic Forum, 1939-40. She was a member of the National Committee on Professional Training and Certification for Aquatic Leadership of the American Association for Health, Physical Education, and Recreation, 1939-40.

Institute of Child Welfare.—John E. Anderson served as a member of the Committee on Child Development, National Research Council; as member of the Governing Council, Society for Research in Child Development; as member of the Third Conference on the Problems of the Deaf and Hard of Hearing, National Research Council; as member of the Committee on the Constitution, American Psychological Association; as member of the Committee on Child Development and the Curriculum which prepared the *Thirty-eighth Yearbook of the National Society for the Study of Education*. He has represented the American Psychological Association in the American Documentation Institute. He is an honorary member of the Board of Governors, National College of Education, Evanston, Illinois. He is associate editor of the *Psychological Bulletin*, *Journal of Genetic Psychology*, *Comparative Psychology Monographs*, *Mental Measurement Monographs*, *Genetic Psychology Monographs*; and is advisory editor of *Childhood Education* and *Parents' Magazine*.

Marion L. Faegre is editor of the Child Training Department, *Farm Journal and Farmer's Wife*, and is associate editor, *National Parent-Teacher*. She served as a member of the Children's Division, Committee of the Minnesota State Conference of Social Work.

Florence L. Goodenough served as representative of the American Psychological Association on the National Research Council. She is chairman of the Editorial Committee in charge of preparing a special commemorative volume of original research to mark the retirement of Professor L. M. Terman of Stanford University, and was a member of the Committee on Intelligence: Its Nature and Nurture, which prepared the *Thirty-ninth Yearbook of the National Society for the Study of Education*. She also served as a member of the Technical Advisory Committee for the Division of Educational Evaluation, American Council on Education, 1939.

Neith Headley served as a member of the National Kindergarten Committee, Association for Childhood Education.

PUBLIC SERVICE ACTIVITIES OF THE STAFF

PUBLIC SERVICE ACTIVITIES OF THE STAFF

Administration.—Guy Stanton Ford serves as director of the National Bureau of Economic Research. He is a member of the Economic Policy Committee and of the National Sponsoring Committee of the National Committee for Mental Hygiene, Inc. He is a member of the Board of Directors of the Minneapolis Public Library. He served as a member of the Advisory Committee of the Franklin D. Roosevelt Library and on the New York World's Fair Committee of the League of Nations Association, Inc.

Minnesota Museum of Natural History.—Walter John Breckenridge was chairman of the local art subcommittee and of the General Art Committee for the meeting of the Wilson Ornithological Society in 1940.

William Kilgore was a member of the local art committee for the meeting of the Wilson Ornithological Society in 1940.

Thomas Sadler Roberts was chairman of the local committee for the meeting of the Wilson Ornithological Society in 1940.

University Testing Bureau.—John G. Darley served as technical consultant to the Community Guidance Center, Fargo, North Dakota, 1939-40.

University Art Gallery.—Ruth E. Lawrence is a member of the Committee for Women's Participation in the New York World's Fair.

Summer Session.—Thomas A. H. Teeter was elected president of the Association of Deans and Directors of Summer Sessions for 1939-40.

College of Science, Literature, and the Arts.—William Anderson is a member of the Minnesota Resources Commission and chairman of the subcommittee on governmental finance. He served as a member of the Northern Lakes Regional Committee of the National Resources Committee (now the National Resources Planning Board).

F. Stuart Chapin serves on the Technical Advisory Committee of the United States Children's Bureau, St. Paul Research Project; on the Public Service Advisory Panel of NBC; on the Advisory Committee to the Research Council on Problems of Alcohol; and on the Advisory Commission on Social Science of the National Conference of Jews and Christians.

Asher N. Christensen is a member of the Oral Examination Board, State of Minnesota, and Merit System Supervisor for the Unemployment Compensation Administration.

Samuel Eddy serves as a member of the Scientific Advisory Committee, Board of Inquiry for the Great Lakes Fisheries, and is acting technical adviser for the Department of Conservation and related agencies.

William H. Emmons served as committeeman, Minnesota Resources Commission.

Mary Gold was named a member of the Advisory Committee of the Crippled Children's Division, Department of Social Security of the State of Minnesota, 1940.

Frank F. Grout served as committeeman, Minnesota Resources Commission.

William L. Hart was named a member of the subcommittee on instruction of War Preparedness Committee of the American Mathematical Society.

Dunham Jackson was named a member of the War Preparedness Committee of the American Mathematical Society.

Evron M. Kirkpatrick collaborated with the Consumers' Counsel, Agricultural Adjustment Administration, United States Department of Agriculture, relative to national and state regulation of advertising.

Benjamin B. Lippincott participated in the School for Extension Workers held under the auspices of the United States Department of Agriculture in Brookings and in Rapid City, South Dakota.

Clarence C. Ludwig is executive secretary, Municipal Reference Bureau, League of Minnesota Municipalities. He was elected president of the American Municipal Association for 1938-39. He is a member of the National Committee on Municipal Accounting, of the special state committee to conduct competitive examinations for state civil service director, of the Civil Service Council, and is a member of the Advisory Committee on Government Finance Survey, Minnesota Resources Commission. He served as president of the Minnesota Tax Conference, 1939-40.

Tremaine McDowell is a member of the Committee for the James Fenimore Cooper Sesquicentennial Celebration, August, 1940.

Dwight E. Minnich is trustee of the Minnesota Arts Council.

Charles W. Nichols is a member of the Yale Library and Museums Committee of the Yale Alumni Association of the Northwest.

Donald G. Paterson is chairman of the Committee on the Classification of Applied Psychologists in the State Service, Minnesota Society for Applied Psychology.

Abe Pepinsky served as a member of the State Advisory Committee, NYA Orchestra, 1940.

George M. Schwartz was consulting geologist for the United States Engineer Office in St. Paul, Minnesota. He served as representative on the Minnesota Drainage Basin Committee and as committeeman on the Minnesota Resources Commission.

Carlyle Scott served as chairman of the State Advisory Committee to select the NYA Orchestra to tour South American countries.

Alice Leahy Shea is a member of the Committee on Personnel and Training for the United States Children's Bureau and Public Assistance Division of the Social Security Board. She is a member of the Legislative Committee of the State Mental Hygiene Society.

Lloyd M. Short served as adviser to the Minnesota State Civil Service Council. He was chairman of the Special Examining Committee of the Minnesota State Civil Service Department, and a member of the Council of National Civil Service Reform League.

Raymond F. Sletto is the St. Paul representative of the Committee on Census Tracts, American Statistical Association. He served as chairman of the Minneapolis Citizens Housing Committee in 1939.

Clinton R. Stauffer served as committeeman on the Minnesota Resources Commission.

John T. Tate served as chairman of the Commission on Entrance Requirements in Physics and Chemistry, College Entrance Examination Board, and as a member of the Committee on the Selection for Modern Pioneer Awards, National Manufacturers Association.

George A. Thiel served as committeeman on the Minnesota Resources Commission.

Gertrude Vaile was a member of the White House Conference on Child Welfare, 1939-40. She served as consultant to the State Civil Service Board, 1940.

George B. Vold served as chairman of the Governor's Committee on Care of Sex and Insane Criminals, 1938-40. He also served as a member of the Advisory Board of Examiners for the selection of chief of police, Rochester, Minnesota, 1939.

Wilfred W. Wetzel is geophysical consultant for the State Highway Department and for the United States Army Engineers.

Institute of Technology.—Axel B. Algren served as a member of the Program Committee of the Minneapolis Engineers' Club, as a member of the Program Committee of the Minnesota Chapter of the American Society of Heating and Ventilating Engineers; as chairman of the Board of Education, 1939, and vice-chairman, 1940, of Minnehaha Academy.

Paul Andersen was a structural engineer at the Panama Canal during the summer seasons 1938, 1939, and 1940.

Frederic Bass is a member of the State Board of Health and was its president in 1938. He served as engineering consultant to the village of Hibbing in 1938-39.

Elting H. Comstock served as a member of the Interim Commission appointed by the Minnesota State Legislature to study the taxation of the iron ore industry in the state.

Kenneth J. Cramsie was instructor with the Extension School Headquarters, First Military Area.

Fred T. Cruzen served as village clerk, village of Morningside. He was a member of the Committee on Traffic Safety, League of Minnesota Municipalities, 1939.

Edward W. Davis served as technical engineer associate, Minnesota State Tax Commission. He was appointed a member of the Committee on Mineral Resources of the Minnesota Resources Commission, 1940.

Fred C. Lang is chairman of Division III of the Committee on Materials, and a member of Division IV on pipe culverts and drain tile of the American Associa-

tion of State Highway Officials; a member of the Committee on Co-operation between Educators and Road Builders, American Road Builders Association; member of Committee C-9 and subcommittees, also Committees D-4 and D-18 of the American Society for Testing Materials. He served as a member of the Mineral Resources Committee of the Minnesota Resources Commission.

Clarence E. Lund was university representative of the Exhibits Committee, Minnesota Federation of Architectural and Engineering Societies.

Orrin W. Potter was elected secretary-treasurer of the Twin City Foundry-men's Association.

George C. Priester is president of the Norway Beach Improvement Association.

Lloyd H. Reyerson served as a member of the Industrial Resources Committee of the State of Minnesota.

Frank B. Rowley served as a member of the Ventilation Code Committee for Schools, State of Minnesota.

Lorenz G. Straub served as expert hydraulic engineer on the flood situation, Missouri River, for the United States Engineer Department, 1939; as adviser to the United States Soil Conservation Service on hydraulic structures research, 1940; adviser to the United States Engineer Department on experimental design studies, Mississippi River Upper Harbor Development at Minneapolis, 1938-39; chairman, Minnesota River drainage basin subcommittee, National Resources Planning Board, 1938-39; and chairman of the Committee on Public Affairs, Minnesota Federation of Architectural and Engineering Societies, 1939-40.

Henry H. Wade was appointed a member of the Committee on Mineral Resources of the Minnesota Resources Commission, 1940.

Joseph A. Wise was consulting engineer for the St. Paul rigid frame bridge; a member of the Examining Committee of the State Board of Registration of Architects, Engineers, and Land Surveyors; a member of the City of Minneapolis Civil Service Commission; consultant in investigation of the collapse of the Duluth amphitheater; and consultant in investigations of water supply and sewage disposal plants at various Minnesota towns.

Department of Agriculture.—John H. Allison served as adviser to the Water Department of the City of St. Paul upon all matters connected with forest planting on the St. Paul Water Department watershed, 1938-40.

Parker O. Anderson is consultant for the American Legion Conservation Committee and co-ordinator for Rural Rehabilitation, Soil Conservation and Agricultural Conservation Administrations as well as CCC, on forestry programs. He is an adviser to the Minnesota Campfire Girls Club.

Albert C. Army is consultant to the Soil Conservation Service, United States Department of Agriculture.

Clyde H. Bailey is chairman of the Industrial Development Committee of the Minnesota Resources Commission for 1939-41.

William A. Billings is a member of the National Turkey Committee and of the Minnesota State General Committee, World's Poultry Congress.

Eva L. Blair is a member of the State Committee on Food, Nutrition, and Related Health Problems and serves as adviser to home supervisors of the Farm Security Administration.

Carl Borgeson was elected assistant secretary and seed registrar of the Minnesota Crop Improvement Association.

Roy O. Bridgford was elected to membership on the Morris Board of Education, Independent School District No. 1.

Clarence H. Christopherson served the State Department of Education in an advisory capacity in formulating a state plan for the teaching of farm mechanics in vocational agriculture in Minnesota high schools, 1940.

Spencer B. Cleland is collaborator for the Farm Security Administration.

Walter C. Coffey is chairman of the following committees: Conference on Factors Which Influence Quality and Palatability of Meats (informal organization of the United States Department of Agriculture and co-operating experiment stations); Honor Roll Committee of the Minnesota Livestock Breeders' Association; Town and Country Committee of the North Central Area Council, YMCA; Executive Committee of the state YMCA, and of the state Advisory Committee on Soil Conservation for Minnesota. He is a member of the National Advisory Committee on Research, Institute of American Poultry Industries; of the committee to prepare the exhibit for the state of Minnesota at the World's Triennial Poultry Congress;

of the Advisory Committee, White Earth Indians; of the Advisory Committee of the National Youth Administration for Minnesota; and of the Executive Committee of the Quetico Superior Council. He has served as a member of the Board of Trustees, Poultry Products Revolving Fund; on the Board of Directors, Minnesota Rural Rehabilitation Corporation; and on the Board of Directors of the International Livestock Exposition. He has been serving as a member of the Board of Education of the Methodist Church, as a member of the subcommittee on educational institutions of the Joint Committee on Christian Education, and is chairman of the Committee on Legislation, Methodist Church. He is a member of the Area Board, state YMCA. He is director of the Flax Institute of the United States and is president of the National Dairy Council, Twin City Unit. He has been elected to serve as chairman of the board and federal reserve agent for the Federal Reserve Bank of Minneapolis, 1940, and is a Class C director of the Federal Reserve Bank of Minneapolis, serving from December, 1939 to December, 1942.

Willes B. Combs was elected secretary of the Minnesota Dairy Industry Committee.

Cora Cooke served as a member of the State Publicity Committee and the State General Committee of the World's Poultry Congress. She is associate member and secretary-treasurer of the Minnesota Poultry Industry Committee, and extension delegate and adviser to the Nicollet County Poultry Committee.

William H. Dankers is alternate associate member of the Minnesota Poultry Industry Committee.

Raymond S. Dunham is secretary of the Red River Valley Crops and Soils Association and is a member of the Board of Directors, Red River Valley Winter Shows. He is weather observer for the United States Department of Agriculture.

Daniel C. Dvoracek is a member of the Minnesota State Adult Education Committee and serves as economic adviser of the Midland Co-operative Wholesale Corporation.

Theodore A. Erickson served as chairman of the National State 4-H Leaders' Organization Committee, as member and chairman of the National Committee for the Development of Co-operation in Character Education, as advisory member of the National Safety Council, as member of the Executive Committee of the Minnesota Safety Council and chairman of the Farm Safety Committee, as member of the Advisory Board of the Minnesota Conservation Federation, as member of the Board of Directors of the Minnesota Public Health Association, and as member of the Board of Directors of the Minnesota Society for the Prevention of Cruelty. He was a member of the Boys' Educational Committee of the American Lutheran Brotherhood, served on the advisory council of the State Parent-Teacher Association, and was a member of the State Committee of the YMCA. He was superintendent of the 4-H Department, Minnesota State Fair.

Edward J. Falvey is a member of the State Farm Storage Committee, Federal Agricultural Adjustment Administration.

Theodore H. Fenske served as a member of the Farm Safety Committee of the Minnesota Safety Council. He is a member of the Board of Trustees, Minnesota-Dakotas District of Kiwanis International.

Norman Goodwin serves as adviser to the Minnesota 4-H Federation. He is a member of the Program Committee of the Alexandria Rotary Club.

Henry L. Hansen served as adviser to the city of St. Cloud on a forest tree planting project and assisted in the establishment of a municipal tree nursery, 1938-40.

Alfred L. Harvey was elected a member of the Board of Directors of the Belgian Draft Horse Corporation, 1938.

Herbert K. Hayes serves as member of the Committee on Varietal Standardization and Registration, American Society of Agronomy.

Inez M. Hobart is chairman of the State Committee on Food, Nutrition, and Related Health Problems; member of the Advisory Committee on Maternity and Infancy Program of the State Board of Health; adviser to home supervisors, Farm Security Administration; and chairman of the School Lunch Committee, Minnesota Dietetic Association.

Alexander C. Hodson is serving in an advisory capacity to the State Forestry Division with regard to forest insect problems.

Richard B. Hull is radio chairman of the Minneapolis Dairy Month Committee for Hennepin County and is radio consultant for the Minnesota Industrial

Resources Commission. He is a member of the National Institute for Education by Radio. He served as co-chairman on radio at the Junior Livestock Show.

Eldred M. Hunt is a member of the Program Committee, the Special Awards Committee, and the Speakers Committee of the Minnesota Horticultural Society.

Oscar B. Jesness is a member of the Council of the Minnesota Institute of Governmental Research and has served as a member of the staffs of extension workers schools conducted by the United States Department of Agriculture in Colorado, Indiana, Iowa, Kansas, and Michigan.

Arthur J. Kittleson is adviser to the State Federation of 4-H Clubs and served as assistant superintendent of the 4-H Department at the Minnesota State Fair. He is a member of the Farm Safety Committee of the Minnesota Safety Council.

Ramer D. Leighton is a member of the Testing Committee, Extension Section, of the American Dairy Science Association.

Roger S. Mackintosh was re-elected secretary of the Minnesota State Horticultural Society.

Harold Macy is a member and technical adviser of the Quality Control Committee for the milk supply of St. Paul and Minneapolis.

Thomas M. McCall is a member of the Joint Committee of the Office of Indian Affairs on the program of land use for White Earth Indians. He is president of the Red River Valley Winter Shows, of the Red River Valley Development Association, and of the Red River Valley Livestock Association. He served as a member of the Fruit List Committee, Minnesota Horticultural Society, and on the Polk County Planning Board for WPA projects.

Chester L. McNelly served as a member of the Board of Directors of the Red River Valley Winter Show.

Paul E. Miller is a member of the State Committee of the Agricultural Adjustment Administration; of the State Advisory Committee Tenant Purchase Program of the Farm Security Administration; of the State Advisory Committee, Soil Conservation Service; of the Land Resources Committee, Minnesota State Planning Board; of the Minnesota State Committee, Flax Institute of the United States; of the subcommittee (of the Committee on Extension Organization and Policy, Association of Land-Grant Colleges and Universities) on land use planning policies; of the Water Resources Committee, Minnesota Resources Commission. He is chairman of the Minnesota Subject Matter Committee on Agriculture, Forestry, Recreation, and Wildlife of the Northern Lake States Regional Committee, and chairman of the State Land Use Planning Committee.

Lowry Nelson served as chairman of the subcommittee on land resources of the Minnesota State Planning Board, 1938-39. He was appointed by the Secretary of Labor to membership on the Advisory Committee on Community Child Welfare Services, 1940-43. He serves as a member of the Committee on Rural Education of the American Country Life Association and as a member of the Board of Directors of that association.

Julia O. Newton served as chairman of the Homemaking Committee, Minnesota Congress of Parents and Teachers. She is a member of the Home Safety Section, Minnesota Safety Council. She serves as consultant to the Home Management Section of the Minnesota Farm Security Administration and as consultant to the Associated Women of the Minnesota Farm Bureau Federation.

William A. Riley is co-operating with the Minnesota and Wisconsin State Departments of Health in a study of the malarial mosquito fauna of the two states.

Arthur G. Ruggles is entomologist of a committee of three selected by the Bureau of Entomology of the United States Department of Agriculture to evaluate and advise regarding the campaign against the gypsy moth in New England.

Skuli H. Rutford is president and member of the Board of Directors of the Minnesota Rural Rehabilitation Corporation.

Thorvald Schantz-Hansen was elected president of the Cloquet School Board for 1939-40.

Mildred Schenck is a member of the Executive Committee of the National 4-H Congress. She serves as adviser to the State 4-H Club Leaders' Organization. She is a member of the Minnesota State One-Act Play Committee.

Henry Schmitz is a member of the Committee on Forest Resources, Minnesota Resources Commission.

Harold R. Searles served as superintendent of cattle, Dairy Cattle Congress.

Harold H. Shepard is collaborator with the United States Department of Agriculture.

Hubert J. Sloan was elected chairman of the Minnesota Poultry Industry Committee, 1939, and vice-chairman of the Minnesota Poultry Improvement Board. He is collaborator for the United States Department of Agriculture for the Regional Poultry Research Laboratory, East Lansing, Michigan.

Gustav Swanson is a member of the Employment Committee of the Wildlife Society.

Matthias A. Thorfinnson was elected secretary of the State Advisory Committee of the Soil Conservation Service.

Warren C. Waite served as a member of the Technical Advisory Committee of the Minnesota Income Study, and was consulting expert on a milk study prepared by the Bureau of Labor Statistics for the temporary National Economic Committee.

Amy M. Wessel is president of the Board of Directors of the Recreation Leaders' Laboratory. She is a member of the Board of Directors of the Minnesota Public Health Association, a member of the State Home Safety Council, a member of the Minnesota State General Committee, World's Poultry Congress, and a member of the National 4-H Events Committee. She serves as adviser to the State Federation of 4-H Clubs.

Laurence M. Winters serves as collaborator to the Regional Swine Breeding Laboratory.

Medical School.—Raymond M. Amberg served as a member of the Governor's Committee on a Survey of the Handicapped.

Raymond N. Bieter served as collaborator and agent for the Division of Plant Exploration and Introduction, Bureau of Plant Industry, United States Department of Agriculture, 1938-40.

Ruth E. Boynton was elected a member of the State Board of Health.

Ancel Keys is a member of the Advisory Committee on Medical Research of the Civil Aeronautics Authority.

J. Charnley McKinley is a member of the Interim Committee for the Study of the Psychopathic Personality Law, requested by the governor and appointed by the Minnesota State Medical Association. He is a member of the Advisory Committee of the Feebleminded for the Minnesota Board of Public Welfare.

John P. Medelmon is a member of the City Council at Birchwood, Minnesota.

Harold O. Peterson served as roentgenologist for the Tuberculosis Division of the Department of Public Institutions of the State of Minnesota.

Leo G. Rigler served as roentgenologic consultant for the Tuberculosis Division of the Department of Public Institutions of the State of Minnesota, and as consultant roentgenologist for the Minneapolis General Hospital.

Virgil J. Schwartz is a member of a committee of the Minnesota Academy of Ophthalmology and Otolaryngology to study the acquisition of federal financial aid for underprivileged children of Minnesota in the diagnosis and care of ear, nose, and throat diseases.

Charles E. Stanford served as consulting ophthalmologist, State Department of Public Assistance, Bureau for the Blind, 1938-40.

Maurice B. Visscher served as a member of the Committee on Motor Vehicle Accidents of the Minnesota State Medical Association.

Law School.—Edward S. Bade served as adviser on drafting to the Minnesota State Bar Association Committee on Real Property.

Wilbur H. Cherry is a member of the Advisory Committee on Federal Rules of Civil Procedure appointed by the United States Supreme Court; he is adviser to the reporter on evidence of the American Law Institute, and is vice-president of the Minneapolis Legal Aid Society.

Everett Fraser is adviser to the American Law Institute on the Restatement of Law of Real Property.

Maynard E. Pirsig was elected secretary of the Judicial Council of Minnesota.

Horace E. Read served as adviser on drafting to the Committee on Real Property of the Minnesota State Bar Association; he is a member of the Drafting Committee of the Interstate Crime Commission; he co-operated with the Drafting Bureau of the House of Representatives, Minnesota State Legislature, 1939, and was adviser on drafting administrative provisions, Minnesota Small Loans Act, 1939.

Stefan A. Riesenfeld served as consultant to the attorney general's office of California, and to the Department of State on questions involving international law.

Henry Rottschaefter was consulted on tax matters by the Minnesota state attorney general's office, the State Board of Tax Appeals, and by the state income, gift, and inheritance tax administrators. He was also consultant to the statutory reviser concerning classification of Minnesota tax statutes.

College of Pharmacy.—Gustav Bachman was elected a member of the Minnesota State Board of Health.

College of Education.—Clifford P. Archer served as a member of the Advisory Committee of the Minnesota Safety Council, 1938-40, and as a member of the Advisory Council of the State Parent-Teachers Association.

Walter W. Cook is a member of the Committee on Educational Forms, Illinois State Tax Commission.

Graduate School.—Richard E. Scammon served as chairman of the Minnesota State Planning Board, 1938; Minnesota Resources Commission, 1939-40; and Committee on Interstate Co-operation, 1938-40.

School of Business Administration.—Roy G. Blakey served as consultant to the National Resources Planning Board.

Arthur M. Borak served as technical adviser in the field of public finance for the Minnesota Resources Commission, 1938-40.

Laurence R. Lunden was a member of the Municipal Bond Committee of the National Association of Supervisors of State Banks, 1938-40. He served as consultant to the Division of Banking, State of Minnesota, 1938-39.

Edmund A. Nightingale served as consultant on transportation for the Minnesota Resources Commission, 1939-40.

Emerson P. Schmidt was consulting economist, American Legion Employment Stabilization Service, 1939-40.

Physical Education for Women.—Marvel C. Mee served as a member of the Advisory Committee of the Minnesota posture improvement campaign sponsored by the Minnesota Public Health Association.

Helen M. Starr was editorial representative and water sports consultant of the Water Sports Committee of the National Section on Women's Athletics of the American Association for Health, Physical Education, and Recreation, 1939-40.

Jesselene Thomas served as a member of the State Basketball Committee for the National Section on Women's Athletics and as secretary of the Minnesota Board of Women's Sports Officials, 1939-40. She was appointed national judge of basketball officials for the Women's National Officials Rating Committee, 1939-40.

Institute of Child Welfare.—John E. Anderson served as a member of the White House Conference on Children in a Democracy, 1939-40. He is chairman of the Committee on the Exceptional Child; member of the National Board of Managers, National Congress of Parents and Teachers; and is the seventh vice-president of the Minnesota Congress of Parents and Teachers. He is a member of the Board of Directors of the Children's Home Society of Minnesota, and a member of the Board of Directors of the Minnesota Society for Mental Hygiene.

Pearl T. Cummings is director of the educational program for Ramsey County Aid for Dependent Children and is co-chairman of parent education for the Minnesota Congress of Parents and Teachers.

BUILDINGS AND GROUNDS

BUILDINGS AND GROUNDS

LAND

During 1938-40, an addition was made to the Main campus by the purchase of the following seven pieces of property, all of which are located in Subdivision of Block J, Tuttle's Addition to St. Anthony:

Lots	Square Feet
1. The southwesterly 105 feet of Lot 6, amounting to.....	5,775
2. Lot 7, the northwesterly 10 feet of Lot 8, amounting to.....	10,114
3. The southeasterly 45 feet of Lot 8, amounting to.....	7,002
4. Lot 9, amounting to.....	8,558
5. The northwesterly ½ of Lot 10, amounting to.....	4,279
6. The southeasterly ½ of Lot 10, amounting to.....	4,279
	40,007

This total of 40,007 square feet is the equivalent of nearly one acre.

The following property, amounting to 68 acres, was added to the Northwest School and Station at Crookston:

Lot 4 and part of Lot 3, Sec. 19, Tp. 150, R. 46.

The following property, amounting to 400 acres, was added to the Forestry Station at Cloquet:

SW¼ of NW¼, S½ of SW¼, N½ of SE¼ and NE¼ of NE¼, Sec. 18, Tp. 48, R. 18w.
 NW¼ of NW¼, Sec. 19, Tp. 48, R. 18W.
 SE¼ of NE¼, Sec. 20, Tp. 48, R. 18W.
 And part of NW¼ of SE¼ and SW¼ of SE¼, Sec. 1, Tp. 48, R. 17W.

The following property, amounting to 20 acres, was added to the Northeast Experiment Station at Duluth:

W½ of NW¼ of NE¼ of NE¼
 E½ of NE¼ of NW¼ of NE¼
 W½ of SW¼ of NE¼ of NE¼
 E½ of SE¼ of NW¼ of NE¼, Sec. 25, Tp. 51, R. 14.

The following property, amounting to 351.28 acres, was added to the Southeast Experiment Station at Waseca:

309.99 acres, Sec. 13, Tp. 107, R. 23W.
 41.29 acres, Sec. 18, Tp. 107, R. 22W.

LAND IMPROVEMENTS

Main campus.—All of the houses located in the subdivision of Block J, Tuttle's Addition to St. Anthony, as enumerated above, were wrecked and the land suitably graded.

Twenty-one new tennis courts with water-bound macadam base and asphaltic top were constructed on the block bounded by Fourth Street and Fifth Street S.E., and Eighteenth and Nineteenth Avenues. Also in this same block a small control house and a refectory were constructed, and the entire block was enclosed with an appropriate fence. These tennis courts were built because it was necessary to wreck the old courts, which were south of Washington Avenue, to provide space for future buildings. The asphaltic type of court makes it possible to play quickly after a rain, which was impossible with clay courts. This has meant that there has been a decided increase in tennis although fewer courts are available.

The area around the Women's Field House has been suitably landscaped, and the small play space for girls has been properly protected.

A concrete driveway was constructed at the St. Anthony Falls Hydraulic Laboratory which is located on Hennepin Island.

The old Observatory, which was located near the Women's Gymnasium was wrecked.

Farm campus.—Four new asphaltic type tennis courts were constructed on the area northwest of the Gymnasium.

The old tennis courts which were formerly in front of the Administration Building were removed, and the area occupied by them has been made into a lawn.

NEW BUILDINGS AND TUNNELS

Main campus.—The following buildings have been completed on the Main campus:

- | | |
|------------------------------|---------------------------|
| 1. Murphy Hall | 3. Coffman Memorial Union |
| 2. Museum of Natural History | 4. Ada Comstock Hall |

Murphy Hall.—The building was constructed from funds from the following sources:

United States Public Works Administration.....	\$112,082.42
Allotment from W. J. Murphy Endowment Fund for Journalism, established by the late W. J. Murphy of Minneapolis.....	122,836.38

This building is located on the west side of Seventeenth Avenue opposite the Main Engineering Building. It is approximately 221 feet long by 60 feet wide. The actual area on the first floor is 11,764 square feet. This building is four stories high—the ground floor being below grade. It is somewhat more modernistic in design than Main Engineering, but the reddish brick harmonizes well with the other buildings on the campus. The building has a pleasing auditorium seating approximately 270, and many fine offices, classrooms, and laboratories. It houses the entire Department of Journalism and provides office and workroom space for all student publications such as the *Minnesota Daily*, *Ski-U-Mah*, and the *Gopher*. The grounds surrounding this building have been landscaped.

Museum of Natural History.—This building was constructed with funds from the following sources:

United States Public Works Administration.....	\$122,400.00
Gift of Mr. and Mrs. James Ford Bell.....	150,000.00
	\$272,400.00

This is an L-shaped building, the outside being constructed entirely of Bedford stone. It is located on the west side of Seventeenth Avenue, across from the Armory and just east of Folwell Hall, with the main entrance on Seventeenth Avenue. The longest dimension is approximately 175 feet along University Avenue, and 75 feet wide. The wing facing Seventeenth Avenue is 75 feet long by 52 feet wide. The wing along Seventeenth Avenue provides a beautiful auditorium seating 470. This auditorium is totally enclosed, has comfortable seats, is well heated and ventilated, and is also acoustically treated. It is provided with moving picture machines and other equipment necessary for a room of this type.

This building houses the groups pertaining to the wild life of Minnesota which were formerly housed in the Zoology Building. The lighting in the building is almost entirely of the fluorescent type; and because of the fact that the museum portion of the building was constructed with no outside light, the effect is magnificent. The front of the building is occupied by the offices of the director and the curator. The top floor, which is set back from the building proper, contains offices, laboratories, classrooms, and adequate workshop space.

The structure, as a whole, is beautiful, and exceedingly well planned. The grounds surrounding it are attractively landscaped.

Coffman Memorial Union.—This building was constructed with funds from the following sources:

United States Public Works Administration.....	\$891,900.00
Gifts of faculty, students, alumni, and friends, allocation of Service Enterprise earnings accumulations, and proceeds of \$400,000 certificates of indebtedness pledging future income.....	1,068,100.00

This magnificent structure is located approximately one block south of Washington Avenue centering on and facing the Mall. It is of semi-modernistic design using a combination of Bedford stone and red brick, the color of the brick matching that of other buildings facing the Mall. It has six stories above the ground, with ground floor, basement, and subbasement below the Mall level. The ground

floor of this building is approximately 305 feet long by 189 feet wide. Above the Mall level, the building is a U-shaped block made with the center portion and two wings. The central portion of the building, which faces Washington Avenue, is approximately 305 feet long and 86 feet wide. The two wings are each approximately 103 feet square. This structure is provided with every facility for utilizing the leisure time of students. There are game rooms, billiard rooms, bowling alleys, lounge rooms for both men and women, ballrooms, a fine arts room, and a small theater. The structure also contains restaurants, cafeterias, grill room, fountain room, and adequate kitchens and serving rooms.

This building also houses the university post office with 18,000 boxes, a book-store catering to the current needs of students, a barber shop, and a beauty parlor.

Underneath the terrace in front of the building is a large underground garage with space to accommodate 230 automobiles; the garage floor level is the same as the ground floor level in the Union. Entrances are provided between the garage and the Union.

The structure also provides office space for the director of the Union, the manager of the Food Service, the Union Board of Governors, the alumni secretary, Alumni Directory, Alumni Weekly, a room for the Minnesota Alumnae Club, and offices and rooms for many student organizations as well as the suite of rooms for the Faculty Women's Club. The top three floors, constituting approximately 10 per cent of the structure, house the Campus Club.

The building is beautifully furnished throughout with a fine use of color in walls, rugs, and furniture.

The great hall opposite the main entrance is full two stories high with a fireplace at each end. Very appropriately, over the east fireplace is a portrait in oil of Mrs. Coffman, and over the west fireplace one of Dr. Coffman. These were done by Mr. John C. Johansen, a distinguished portrait artist.

The grounds surrounding this structure have all been attractively landscaped. *Ada Comstock Hall*.—This building was constructed with funds from the following sources:

United States Public Works Administration.....	\$319,455.00
University allotment; in part from Service Enterprise earnings accumulations and part of an issue of \$180,000 certificates of indebtedness	455,320.69

This building is a residence for women students and is located on the extreme southwesterly part of the campus, south of Washington Avenue. It overlooks the bend in the Mississippi River. The building is modernistic in design with a one-story center section 85x38 feet, facing Washington Avenue; and on each side of the central portion, there is an L-shaped wing. The two north and south wings are each 112 feet long by 33 feet wide and are six stories high. The east and west wings are 152 feet long by 33 feet wide and are each four stories high. The building is fireproof reinforced concrete throughout, with an exterior of dark-red brick.

The one-story portion of the building contains the offices of the director, the library, and a foyer. In each of the L-shaped sections, there is a dining room and also a lounge. Between the dining rooms, and arranged so that service may be easily available to each, is a large modern kitchen.

The remainder of the building contains rooms—most of them single. It will accommodate 286 women students.

The study desks, wardrobes, etc. were built into each room in such a way as to make the rooms compact but still adequate and comfortable. The lounge rooms are beautifully furnished, and a clever use of colors was made throughout the structure so that it is extremely attractive.

Adequate sidewalks and drives were constructed leading to the building, and the grounds surrounding it have been beautifully landscaped.

Farm campus.—Two buildings have been completed on the Farm campus: the Health Service Building and Thatcher Hall.

Health Service.—This building was constructed with funds from the following sources:

United States Public Works Administration.....	\$48,063.00
University Health Service accumulations.....	74,112.41

This building, as the name indicates, is the Health Service Building for the Farm campus. It is approximately 158 feet long and 38 feet wide, two stories high in the front and three stories in the rear. It faces Cleveland Avenue and is located

just north of Dexter Hall and southwest from the Gymnasium. The building is modernistic in design, of dark-red brick construction, and has the facilities that a modern health service building should have, such as doctors' offices, nurses' quarters, examination rooms, rooms for patients, and adequate food supply service. It does not contain operating rooms, X-ray rooms, etc., because these facilities are available at the main Health Service and Hospitals, on the Main campus. The grounds surrounding this building have been landscaped.

Thatcher Hall.—This building was constructed with funds from the following sources:

University allotment; in part from Service Enterprise earnings accumulations and part of an issue of \$180,000 of certificates of indebtedness	108,835.09
United States Public Works Administration	\$ 93,843.27

This building is an apartment house for married graduate students. It is located just south of Commonwealth Avenue and faces Haecker Hall. It is of U-shaped block construction, three stories high above the ground, with a basement.

The structure is fireproof throughout, is modernistic in design, and is built of dark-red brick. It contains thirty-six completely furnished apartments. Heat is supplied from the central heating plant on the Farm campus, but the individual tenants arrange for gas and electricity through the Northern States Power Company.

This building was constructed to help solve an urgent need for suitable living quarters at a reasonable price for married graduate students, who are attending the University. It is located on the Farm campus because space was available and the intercampus car line provides cheap transportation to the Main campus should a student have all of his work on the Main campus. The popularity of this building demonstrates that it supplies a much needed service. The grounds surrounding the building have been landscaped.

Northeast Experiment Station, Duluth.—A new office and laboratory building, approximately 36 feet long and 24 feet wide, two stories high and a basement, was constructed at this station. The funds for this building were provided as follows:

University allotment	\$ 9,678.78
United States Works Progress Administration (approximate)	16,685.00

This structure contains the office of the superintendent, a laboratory, and quarters in which to house university experts who may be required to spend a week or two at various times at the station. The basement contains a heating plant, a laboratory, a fireproof vault for safe keeping of records, and an insulated frost-proof room for the storage of vegetables and fruits.

The building, designed in its entirety by the Department of Buildings and Grounds, is a frame construction, stuccoed exterior, while the inside is plaster on metal lath. The building is thoroughly insulated to prevent heat losses so that it can be operated economically during the cold weather. The grounds surrounding this structure have been landscaped.

University Fruit Breeding Farm, Excelsior.—At this field station, a new greenhouse, root cellar, and headhouse to replace the old greenhouses were constructed with funds from the following sources:

University allotment	\$14,733.19
United States Works Progress Administration (approximate)	20,000.00

The greenhouses at this station had become entirely obsolete and had been a constant source of expense to keep them in working order. It was entirely impossible to replace them with university funds; but when all labor could be supplied by the United States Works Progress Administration, it did make it possible with the limited funds available at the University, to replace the old greenhouses with modern structures. The results have been extremely gratifying.

Also at this station, and constructed entirely with funds supplied by the United States Works Progress Administration, is a small summer cottage for the use of the director while he is on duty during the spring and summer months.

Northwest School and Experiment Station, Crookston.—Two major developments took place at this station: the remodeling of Owen Hall and the re-vamping of the heating tunnels.

Owen Hall.—This building was completely remodeled with the following sources of funds:

University allotment	\$18,986.83
United States Works Progress Administration (approximate).....	40,000.00

This building contains classrooms, offices, and laboratories for work in farm mechanics, such as drafting rooms, woodshop, forge shop, welding shop, and a large demonstration room for farm machinery. It also contains the storage and repair garage for use of university-owned cars, buses, tractors, etc.

On account of soil conditions, the entire structure is placed on concrete piles extending 60 feet into the ground to prevent any settlement; metal lath and plaster were used throughout the inside of the building. The outside is of yellow brick which matches the other buildings on the Crookston campus.

The remodeling, which was badly needed, as the old structure was in a dilapidated condition, makes it possible adequately to house the Department of Farm Mechanics.

Tunnels.—The entire heating tunnel system at this station has also been completely overhauled with sources of funds as follows:

University allotments	\$24,500.00
United States Works Progress Administration (approximate).....	25,000.00

When the heating tunnels at this station were originally constructed, a poor grade of concrete was used. This deteriorated rapidly, with the result that the old tunnels were a constant source of expense because of cave-ins, which created a dangerous situation. Furthermore, the heating line from the main heating plant to the Gymnasium, a distance of some 700 feet, was run in a conduit only about 3 feet underground. This conduit became filled with water during the early spring. This water would freeze so that steam was being transmitted to the Gymnasium through an almost solid cake of ice, and this was most uneconomical. With the construction of the new tunnels, all the steam lines have been revamped and modernized and are in a dry space easily accessible at all times. This was one of the most needed improvements at the Crookston campus.

IMPROVEMENTS AND ALTERATIONS

Main campus.—Besides the customary maintenance, the following improvements deserve special mention:

The ground floor of Pillsbury Hall has undergone a complete revamping. The west end, which was formerly occupied by Student Publications, has been made into a fine large classroom seating approximately 225. The space formerly occupied by the Department of Journalism has been made into classrooms and laboratories for the Department of Geology.

A third floor was added to a portion of the Armory facing Seventeenth Avenue to house the Naval R.O.T.C. unit. This space provides fine offices, a library, and two new classrooms.

Farm campus.—The space in the Old Dairy Hall, which was formerly occupied by the Forestry Department, was assigned to the Farm campus branch of the Minnesota Union. This space, together with the space previously occupied by the Union, was all remodeled, and now contains a soda fountain, billiard and game rooms, and lounge rooms for both men and women.

Contracts were awarded for two new steam generating units or boilers together with the fuel-burning equipment. These boilers are of the most modern type, each having a capacity of 35,000 pounds of steam per hour at 300 pounds pressure.

A small addition was added to the milk and cream laboratories of Haecker Hall to provide for more economical handling of milk and cream, and a better space for the ice cream department.

GIFTS, 1938-39

SUMMARY OF CASH GIFTS

(As of June 30, 1939)

Description	No.	Amount	Total
Loan funds			
New	3	\$ 25,386.40	
Additions to old	4	1,111.53	
		<hr/>	\$ 26,497.93
Scholarships			
New	1	50.00	
Additions to old	16	2,430.00	
		<hr/>	2,480.00
Fellowships			
New	2	2,400.00	
Additions to old	9	46,503.84	
		<hr/>	48,903.84
Prizes			
New	3	10.00	
Additions to old	22	1,007.95	
		<hr/>	1,017.95
Research			
New	21	127,192.47	
Additions to old	20	54,120.79	
		<hr/>	181,313.26
Miscellaneous			
New	13	284,310.00	
Additions to old	8	7,013.50	
		<hr/>	291,323.50
			<hr/>
Total			\$551,536.48

CASH GIFTS, 1938-39

LOAN FUNDS—NEW

\$25,000.00	Bequest in the will of the Honorable Frank B. Kellogg to establish a loan fund for law students
233.40	From colleagues and former students of Professor Robert W. Murchie, to establish the R. W. Murchie Graduate Loan Fund, for graduate students specializing in rural sociology
153.00	From the Orbs Society, to establish the William A. O'Brien Loan Fund for students in medical technology
<hr/>	
\$25,386.40	

LOAN FUNDS—ADDITIONS TO PREVIOUS GIFTS

\$ 1,000.00	Law Alumni Loan Fund
100.00	Class of 1902 Loan Fund
10.00	From Chi Psi Mothers' Club for General Student Loan Fund
1.53	Sigma Delta Gamma Graduate Student Loan Fund
<hr/>	
\$ 1,111.53	

THE PRESIDENT'S REPORT

SCHOLARSHIPS—NEW

\$ 50.00 From Theta Sigma Phi to establish a scholarship to be awarded to a junior woman on the basis of scholastic attainment in journalism and liberal arts courses

\$ 50.00

SCHOLARSHIPS—ADDITIONS TO PREVIOUS GIFTS

\$ 550.00 Dairy and Ice Cream Machinery and Supplies Association Scholarship
 500.00 Minneapolis College Women's Club Scholarship
 250.00 Pullman Company Scholarships
 250.00 Presser Foundation Scholarship in Music
 105.00 Minnesota State Pharmaceutical Scholarship (1939-40)
 100.00 Minnesota Home Economics Association Freshman Scholarship
 100.00 C. L. Lewis, Jr. Scholarship in Forestry
 100.00 P. E. O. Scholarship
 100.00 Marian L. Vannier Scholarship
 100.00 Northwest Daily Press Association Journalism Scholarship
 50.00 Alpha Zeta Scholarship
 50.00 Home Economics Association Scholarships
 50.00 Minneapolis Women's Advertising Club Scholarship
 50.00 Alpha Tau Delta Scholarship
 50.00 Twin City Panhellenic Association Fellowship
 25.00 Gisle Bothne Scholarship of Delta Sigma Psi

\$ 2,430.00

FELLOWSHIPS—NEW

\$ 1,400.00 From the Washburn Memorial Orphan Asylum, to establish two fellowships annually for three years, to be known as the Washburn Home Fellowships
 1,000.00 From the Harriet Walker Hospital Association to establish the Harriet Walker Hospital Association Fellowship in Obstetrics

\$ 2,400.00

FELLOWSHIPS—ADDITIONS TO PREVIOUS GIFTS

\$28,524.84 From Minneapolis General Hospital
 \$17,850.00 for continuation of twelve fellowships, six instructorships, three additional clinical assistantships, and \$300 to supplement the salary of the assistant to the director of the Medical Service for 1938-39
 \$10,674.84 for continuation of thirteen fellowships and two instructorships, \$300 to supplement the salary of the assistant to the director of the Medical Service, and \$699.84 to supplement the salary of an assistant in neuropsychiatry for 1939-40
 6,000.00 Carnegie Corporation Fellowship in Dental Research
 5,000.00 Emil Oberhoffer Memorial Fund
 2,850.00 American Dry Milk Institute Fellowship
 1,650.00 Miller Hospital Fellowships
 \$825.00 1938-39
 825.00 1939-40
 800.00 Standard Oil Company of California Fellowships
 750.00 American Creosoting Company Fellowship
 750.00 duPont Fellowship for 1939-40
 179.00 Fellowship for Graduate Students in Social Work

\$46,503.84

PRIZES—NEW

- \$ 10.00 From Sigma Alpha Sigma for an annual prize to be awarded each year to the sophomore of Jewish origin registered in the Institute of Technology attaining the highest scholastic standing during his freshman year
- One-year membership in the American Pharmaceutical Association, to be known as the Rho Chi Sophomore Prize, to be awarded to the highest ranking sophomore in the College of Pharmacy
- Bracelet from Phi Delta Sorority, to establish an annual prize of a bracelet to be awarded to the highest ranking junior woman in the School of Business Administration

\$ 10.00

PRIZES—ADDITIONS TO PREVIOUS GIFTS

- \$ 175.00 Pillsbury Debate Prize
- 100.00 Charles Lyman Greene Prize
- 100.00 Peavey Prizes
- 100.00 Southern Medical Association Prize
- 75.00 American Society of Mechanical Engineers Prize
- 65.00 Minnesota Bookstore Prize in Journalism
- 53.45 American Society of Civil Engineering Prize
- 50.00 Louise M. Powell Prize
- 50.00 Phi Upsilon Omicron Prize
- 50.00 Gargoyle Club Prizes
- 28.50 School of Chemistry Faculty Prize
- 25.00 Pi Beta of Chi Omega Prize
- 25.00 Tau Beta Pi Prize
- 25.00 Lambda Alpha Psi Prize (second prize only)
- 15.00 Alpha Alpha Gamma Prize
- 15.00 Phi Lambda Upsilon Prize
- 15.00 Northern States Power Company Prize
- 10.00 Alpha Chi Sigma Twin City Alumni Association Prize
- 9.00 University of Minnesota Student Branch of the Institute of Aeronautical Science Prize
- 8.00 Chi Epsilon Prize
- 7.00 Eta Kappa Mu Prize in Electrical Engineering
- 7.00 Pi Tau Sigma Prize in Mechanical Engineering

\$ 1,007.95

THE PRESIDENT'S REPORT

RESEARCH—NEW

\$75,000.00	Bequest in will of the late Dr. Charles Fremont Dight for research in eugenics
16,500.00	Rockefeller Foundation for research on mechanism of osmosis under the direction of Professor M. B. Visscher
14,400.00	From the W. H. Barber Company to establish the Sivertsen Foundation for Cancer Research, to be made available over a period of five years
7,500.00	From the Rockefeller Foundation for the purchase of research equipment for the Biochemistry Laboratories
4,177.44	From the American Council on Education to carry out a program of evaluation of motion pictures
2,000.00	From the Northwest Association of Ice Cream Manufacturers for research on sanitary quality of the ice cream supply in Minnesota
1,865.35	From the National Research Council Committee on Aerobiology for research in aerobiology
1,250.00	From the National Research Council for research in endocrinology
700.00	From Mead Johnson and Company for research on the relation of fat metabolism to eczema
510.00	From the National Research Council for physiological research
500.00	From the Winthrop Chemical Company for studies on sulfanilamide and related chemotherapeutic agents
464.04	To establish the Institute of Technology Research Fund
	\$175.00 American Telephone and Telegraph Company
	175.00 Mellon Institute for Industrial Research
	99.04 Dow Chemical Company (balance transferred from research fund)
	15.00 Dr. Earl F. Ogg
400.00	From the American Medical Association for research on anemia of the brain
400.00	From the American Medical Association for histamine studies under the direction of Dr. Charles F. Code
325.64	From Dr. H. O. Halvorson through assignment of 30 per cent of the royalties from his patent on an aerofilter, to be used for research in bacteriology, sanitation, and related fields. \$325.64 represents the university share of fees to June, 1939
300.00	From the American Society of Civil Engineering for research on air resistance of flow of water in open conduits
200.00	From the Rust Prevention Association for investigation of the freezing injury to varieties of wheat in the blooming stage
200.00	Honorarium returned by Dr. George E. Vincent, to be known as the Vincent Fund for Research in the School of Business Administration
200.00	From the Flax Development Committee to aid in a flax improvement program
200.00	From Starline, Inc., for a comparison of efficiency of modern hayforks with slings
100.00	From the Musher Foundation, Inc., for a study of the influence of avenized parchment paper on the flavor and composition of butter, and of the influence of adding Avonex concentrate to cream on the keeping quality of butter

\$127,192.47

RESEARCH—ADDITIONS TO PREVIOUS GIFTS

\$15,000.00	Rockefeller Foundation Research on Lipoid Metabolism, for continuation of research for a five-year period, July 1, 1939 to June 30, 1944
15,000.00	National Mineral Wool Association Fund (formerly National Rock and Slag Wool Association Fund)
10,000.00	A year for three years from the Citizens Aid Society for the Cancer Institute
2,955.00	Joslyn Lightning Arrester Research Fund
	\$1,200.00 for research
	1,755.00 for purchase of electrical condensers to carry on the research, which will remain the property of the Joslyn Manufacturing and Supply Company
2,000.00	Rock Analysis Laboratory
1,274.80	Coffman Educational Research Fund
	\$288.50 College of Science, Literature and the Arts
	\$59.00 Administration
	Department of Anthropology
	Department of German
	Department of Speech
	42.50 Department of English
	Department of Scandinavian
	27.00 Department of History
	25.00 Department of Mathematics
	25.00 Department of Botany
	25.00 Department of Geology
	24.00 Department of Physics
	20.00 Department of Music
	15.00 Departments of Romance Languages and Orientation
	10.00 Department of Zoology
	8.00 Department of Journalism
	8.00 Department of Sociology
	115.00 Faculty of the Medical School
	100.00 Agricultural Faculty Women's Club
	77.00 Division of Home Economics
	68.90 Faculty of the Institute of Technology
	45.00 University of Minnesota Hospitals
	40.75 School of Nursing staff at
	University of Minnesota Hospitals
	Minneapolis General Hospital
	Miller Hospital
	Glen Lake Sanatorium
	40.00 Division of Forestry
	38.00 College of Pharmacy
	26.25 Physical Education and Athletics
	25.00 Home and Garden Section of the Faculty Women's Club
	25.00 Dean and Mrs. Guy Stanton Ford
	25.00 Minneapolis College Women's Club
	25.00 Scholia
	25.00 Social Service Section of the Faculty Women's Club
	25.00 Physical Education for Women
	20.00 College of Education
	16.50 Office of the president and Mr. William Johnson
	15.00 Dr. Owen H. Wangensteen
	15.00 Minnesota Council of School Executives
	15.00 Division of Agricultural Engineering
	10.50 Office of the comptroller
	10.00 Midland Hills Country Club
	10.00 Miss Mary H. Folwell
	10.00 Mr. and Mrs. Walter L. Stockwell
	10.00 Dean and Mrs. Malcolm M. Willey
	10.00 Dean O. M. Leland
	10.00 Pi Lambda Theta members

THE PRESIDENT'S REPORT

10.00	Students' Section of the Faculty Women's Club
10.00	Mr. R. R. Price
10.00	Northwest School and Station
10.00	Minnesota Congress of Parents and Teachers
6.00	Mr. and Mrs. R. A. Gortner
5.00	Mr. R. M. Elliott
5.00	Mr. and Mrs. John E. Anderson
5.00	Gamma Chapter of Delta Zeta Sorority
5.00	Mr. and Mrs. John G. Darley
5.00	Mr. Charles Bird
5.00	Mr. Henry A. Erikson
5.00	Mr. and Mrs. C. K. D. Minar
5.00	Mr. Hans Schetter
5.00	Mr. J. D. Holtzermann
5.00	Miss Dora V. Smith
5.00	Mr. Wilbur F. Decker
5.00	Mrs. E. M. Lobeck and Miss Calista Miles
5.00	Mr. and Mrs. Donald G. Paterson and Mrs. P. C. Young
5.00	Dean W. E. Peik
5.00	Twin City Alumnae Association, Gamma of Delta Zeta
3.00	Mr. and Mrs. Howard Longstaff
3.00	Brides' Section of Faculty Women's Club
2.00	Mr. and Mrs. Roland S. Vaile
2.00	Misses Ernestine C. Donaldson and Helen G. Canoyer
1,200.00	Merck and Company Vitamin E Research
1,000.00	Sandoz Chemical Works Research
1,000.00	The Firestone Fund
825.00	Hudson Bay Richmond Gulf Botanical Expedition
	\$500.00 Bache Fund of the National Academy of Sciences
	150.00 Ernst C. Abbe
	100.00 Anonymous
	75.00 John W. Marr
600.00	Mead Johnson and Company Research on Infant Metabolism
500.00	American Society of Heating and Ventilating Engineers Research
500.00	American Creosoting Company Research (Wood Preservatives)
500.00	Minnesota State Pharmaceutical Association Research
500.00	Central Fibre Corporation Research
500.00	American Academy of Arts and Sciences Fund
300.00	American Society of Civil Engineers Research on Sedimentation at the Confluence of Rivers
200.00	Mead Johnson and Company for research on lipid metabolism in acute infection
158.39	Sigma Xi Research Fund
110.00	Medical Social Work Fund
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\$ 54,120.79	

MISCELLANEOUS—NEW

\$150,000.00	From James F. Bell for the construction of a museum of natural history
75,000.00	From the Commonwealth Fund to supplement the grant of \$50,000 from the trustees of the Stevens Avenue Home for a children's psychopathic clinic
31,000.00	To apply toward the construction of the new Union Building
	\$25,000.00 Campus Club
	3,000.00 Committee on Salary Contributions
	2,000.00 Faculty Women's Club
	1,000.00 Minnesota Union Board of Governors
25,000.00	From Board in Control of Student Publications to be applied toward the construction of the new Journalism Building
1,350.00	From the American Legion Auxiliary, Department of Minnesota, for the purchase of an adult respirator for the University of Minnesota Hospitals
600.00	From the Boy Scouts of America—Region Ten, for construction of an infirmary at the Forestry Station, Itasca Park
500.00	From the Northwestern Golden Gloves Fund to assist in financing expenses of the hockey team to the National Amateur Athletic Union tournament in New Haven
400.00	From the Traffic Club of Minneapolis for playground equipment and awnings for Eustis Hospital
150.00	From Mary Heywood Folwell for purchase of books on military history and science for the Captain William B. Folwell Memorial War Collection
120.00	From Dr. Frank E. Burch for construction of bookcases in the Murray Departmental Library for Ophthalmology
100.00-150.00	From <i>Journal-Lancet</i> to establish an annual lectureship in the Medical School
50.00	From the Hospital Auxiliary of the Faculty Women's Club for the purchase of vases and water pitchers for the University of Minnesota Hospitals
40.00	From the Nursery School Teachers Institute for a picture for the Center for Continuation Study
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\$284,310.00	

MISCELLANEOUS—ADDITIONS TO PREVIOUS GIFTS

\$ 2,400.00	Minneapolis General Hospital Pediatrics Directorship
	\$1,200.00 1938-39
	1,200.00 1939-40
1,500.00	Professorship in School of Business Administration
1,085.00	Twin City Jewish-American Lectureship Fund
	\$1,060.00 From various donors through Mr. Amos S. Deinard and Mrs. Arthur Brin
	25.00 Mr. Joseph Supornick
1,000.00	Psychology Department Chairmanship
500.00	From Committee on Salary Contributions to apply on a portrait of the late President L. D. Coffman
228.50	Endowment Fund for the School of Nursing
200.00	Judd Lectureship in Medicine and Surgery
100.00	For Henry Schmitz Arboretum Fund from B. C. Spruce Mills, Ltd.
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\$ 7,013.50	

THE PRESIDENT'S REPORT

MISCELLANEOUS GIFTS

One 8-A oscillator, one 13-H oscillator, and one 29-A amplifier from the Western Electric Company for the Department of Electrical Engineering

Four No. 2 torches and one lifetime torch, from the Commercial Gas Company for the Department of Mechanical Engineering

Model 3-43 Bryant boiler and a Model C. F. 90-36 Janitrol furnace from the Minneapolis Gas Light Company for the Institute of Technology

LaSalle chassis from General Motors Sales Corporation for the Experimental Engineering Laboratory

Gift of supplies and loan of equipment to the University Gallery by the Works Progress Administration

Supersonic equipment from Professor Herbert M. Freundlich

Electrical equipment from Western Electric Company to the Department of Electrical Engineering

Typewriter to Department of Ophthalmology and Otolaryngology from Dr. Frank E. Burch

Bronze bust of Dr. W. J. Mayo by Federal Arts Project artists from an anonymous donor

Bronze plaque from the Engineers' Club of Minneapolis to be placed in the Main Engineering Building as a memorial to Professor William Abbot Pike

Bronze plaque from the Northwest Territory Commission

Oil painting by Alexis Fournier from Mr. Philip R. Brooks in memory of his father, Lester R. Brooks

Twelve colored reproductions from the Carnegie Corporation to the University Gallery

Thirty-five lantern slides from the Woman's Club of Minneapolis to the Fine Arts Department

Thirty-six song books and six thermos water jugs from the student body of the Forestry and Biological Station, Itasca Park

Orchestrations from Paramount Pictures, Inc.

Collection of public documents for the Library from Senator Burt L. Kingsley

Gift of books to the University Library, bequeathed to the University by the late Joseph B. Pike

315 volumes of Parliamentary papers and other official documents from Dr. A. H. Bergholm of the Library of Parliament, Helsinki, Finland

181,453 gifts to the Library from 11,613 donors

GIFTS, 1939-40

SUMMARY OF CASH GIFTS

(As of June 30, 1940)

Description	No.	Amount	Total
Loan funds			
New	0		
Additions to old.....	3	\$ 3,630.00	\$ 3,630.00
Scholarships			
New	3	2,400.00	
Additions to old.....	13	4,905.00	7,305.00
Fellowships			
New	9	11,600.00	
Additions to old.....	12	25,899.84	37,499.84
Prizes			
New	4	80.00	
Additions to old.....	20	910.50	990.50
Research			
New	28	79,045.00	
Additions to old.....	26	109,713.12	188,758.12
Miscellaneous			
New	12	11,868.00	
Additions to old.....	8	43,286.91	55,154.91
Total			\$293,338.37

CASH GIFTS, 1939-40

LOAN FUNDS—ADDITIONS TO PREVIOUS GIFTS

\$ 3,500.00	Law Alumni Loan Fund
100.00	Class of 1902 Loan Fund
30.00	William A. O'Brien Loan Fund
<u>\$ 3,630.00</u>	

SCHOLARSHIPS—NEW

\$ 1,000.00	From the American Legion Convention Corporation to establish a scholarship and loan fund to be awarded to a student who is a member of the University Band
1,000.00	Bequest in the will of Mrs. Weed Munro for the establishment of the Weed Munro Law Scholarship
400.00	From the 500th Printing Anniversary Scholarship Awards Committee to establish four journalism scholarships of \$100 each
<u>\$ 2,400.00</u>	

SCHOLARSHIPS—ADDITIONS TO PREVIOUS GIFTS

\$ 3,300.00	Sears, Roebuck and Company Agricultural Scholarships
	\$3,200.00 for scholarships for 1939-40
	100.00 for additional scholarship for 1938-39 presented to Gilbert J. Frange at meeting of sophomore scholars in Chicago
550.00	Law Faculty Scholarship and Loan Fund
	\$200.00 Law Alumni Association
	200.00 Members of law faculty
	150.00 Mr. Hyman Edelman
250.00	Pullman Company Scholarship
105.00	Minnesota State Pharmaceutical Scholarship (1939-40)
100.00	Agricultural Faculty Women's Club Scholarship
100.00	C. L. Lewis, Jr. Scholarship in Forestry
100.00	P. E. O. Scholarship
100.00	Minnesota Home Economics Association Freshman Scholarship
100.00	Northwest Daily Press Association Journalism Scholarship
50.00	Alpha Zeta Scholarship
50.00	Home Economics Association Scholarships
50.00	Minneapolis Women's Advertising Club Scholarship
50.00	Theta Sigma Phi Scholarship

\$ 4,905.00

FELLOWSHIPS—NEW

\$ 6,000.00	From the Carnegie Corporation of New York to establish three fellowships in dental research
1,500.00	Annually for three years from the American Potash Institute, Incorporated, to establish a fellowship for research on the function of boron in certain crop defects and to determine the distribution of boron in plants and its functions
1,000.00	From the Procter and Gamble Company to establish a fellowship in chemical engineering for 1940-41
800.00	Annually from the Harold Rypins Memorial Fund to establish a fellowship in honor of Dr. Harold L. Rypins
700.00	From the North Star Woolen Mills to establish a fellowship for research in the general field of the chemical treatment of wool to produce a fiber having more desirable fabric-making characteristics
500.00	From the Eastman Kodak Company to establish a fellowship for 1940-41 in the School of Chemistry
500.00	From the National Aluminate Corporation to establish a fellowship in the Department of Mechanical Engineering for the period January 1 to June 30, 1940
300.00	From Mead Johnson and Company to establish a one-year fellowship in pediatrics to be served in the Minneapolis General Hospital under Dr. A. V. Stoesser
300.00	From the George Davis Bivin Foundation for a fellowship awarded to Miss Rosemarie Allen
	From Dr. Lee Irvin Smith, income accruing to Dr. Smith from patents arising from Vitamin E research to establish four annual fellowships in organic chemistry to be known by the following titles and to be established in the order named:
	1. The William H. Hunter Fellowship in Organic Chemistry
	2. The George B. Frankforter Fellowship in Organic Chemistry
	3. The Elmer P. Kohler Fellowship in Organic Chemistry
	4. The William Lloyd Evans Fellowship in Organic Chemistry

\$11,600.00

FELLOWSHIPS—ADDITIONS TO PREVIOUS GIFTS

\$10,599.84	Minneapolis General Hospital Fellowships
	For continuation of twelve fellowships and two instructorships, \$300 for salary of an assistant in the directorship of the Medical Service, and \$699.84 for the salary of a part-time assistant in neuropsychiatry for the period July 1, 1940 to June 30, 1941.
6,000.00	Carnegie Corporation Fellowship in Dental Research
2,700.00	American Dry Milk Institute Fellowship
2,000.00	National Research Council and National Live Stock Fellowship
1,400.00	Washburn Home Fellowship
825.00	Miller Hospital Fellowships
750.00	du Pont Fellowship
750.00	Dow Fellowship in Chemistry
500.00	American Creosoting Company Fellowship
300.00	Fellowship for Graduate Students in Social Work
50.00	Twin City Panhellenic Association Fellowship
25.00	Charles Peter Sigerfoos Fellowship Fund in Zoology from Mr. J. E. Wodsedalek

\$25,899.84

PRIZES—NEW

\$ 35.00	From the American Institute of Electrical Engineers to establish four annual prizes of \$15, \$10, \$5, and \$5 for the four best technical papers by student members of the Minnesota Student Branch of the American Institute of Electrical Engineers
35.00	From the Minnesota Book Store to establish three annual prizes of \$20, \$10, and \$5 for the three best articles published in the <i>Literary Review</i> , to be known as the Minnesota Book Store Literary Review Prizes
10.00	From the Mnesicles Chapter, Alpha Rho Chi Fraternity to establish an annual prize of books to the value of \$10, pertaining to architecture, to be awarded to the winner or winners of a given problem in Grade I Design in the School of Architecture
	Key from the University Business Women's Club, to be awarded to the senior woman in the School of Business Administration who has attained the highest four-year scholastic average

\$ 80.00

PRIZES—ADDITIONS TO PREVIOUS GIFTS

\$ 175.00	Pillsbury Debate Prize
100.00	Peavey Prizes
100.00	Southern Medical Association Prize
75.00	American Society of Mechanical Engineers Prize
65.00	Minnesota Book Store Prize in Journalism
54.00	American Society of Civil Engineering Prize
50.00	Gargoyle Club Prize
50.00	Louise M. Powell Prize
50.00	Phi Upsilon Omicron Prize
46.50	School of Chemistry Faculty Prize
25.00	Pi Beta of Chi Omega Prize
25.00	Tau Beta Pi Prize
25.00	Lambda Alpha Psi Prize (second prize only)
15.00	Alpha Alpha Gamma Prize
15.00	Phi Lambda Upsilon Prize
10.00	Alpha Chi Sigma Twin City Alumni Association Prize
9.00	University of Minnesota Student Branch of the Institute of Aeronautical Science Prize
7.00	Pi Tau Sigma Prize in Mechanical Engineering
7.00	Chi Epsilon Prize
7.00	Eta Kappa Mu Prize in Electrical Engineering

\$ 910.50

RESEARCH—NEW

\$45,000.00	From the Frascch Foundation for fundamental research in the field of agricultural chemistry
7,500.00	From the Minnesota and Ontario Paper Company for purpose of developing materials and processes and for the utilization of waste products from the Minnesota and Ontario Paper Company plants
5,000.00	From the Carnegie Corporation of New York through the Carnegie Institution of Washington for the support of the work of Dr. R. G. Green on relation of a virus to certain types of cell proliferation
3,600.00	From the John and Mary R. Markle Foundation for the support of a study of the significance of the excretion of various porphyrins under the direction of Dr. Cecil J. Watson
2,510.00	To apply toward the purchase of 30 condensers for a surge generator to be used in research work by the Department of Electrical Engineering
	\$1,510.00 Minneapolis General Electric Company
	1,000.00 General Electric Company
2,800.00	From the Rockefeller Foundation to aid in the researches of Dean John T. Tate, Dr. Joseph Valasek, and Dr. Elmer S. Miller, on the application of spectroscopy to investigations of lipid metabolism
1,500.00	From Frederick Stearns and Company for research on the effect of certain drugs on the cardiovascular system, under the direction of Dr. Ansel Keys
1,047.50	Chapman Memorial Fund for Research in Entomology
	\$250.00 Mr. F. C. Atherton
	100.00 Graduate Committee, Mayo Foundation
	50.00 Mr. W. A. Riley
	50.00 Gamma Alpha Fraternity
	50.00 American Can Company
	50.00 Dr. Charles P. Sigerfoos
	50.00 Mr. Elvon Musick
	25.00 President Guy Stanton Ford
	25.00 Mr. Leroy S. Palmer
	25.00 Dr. Carl S. Miner
	25.00 Dr. Harold L. Lyon
	20.00 Mr. F. M. Wadley
	15.00 Miss Nellie M. Payne
	15.00 College of Education
	12.50 Department of Botany
	10.00 Professor D. E. Minnich
	10.00 Professor R. A. Gortner
	10.00 Department of Zoology
	10.00 Mr. Dunham Jackson
	10.00 Professor J. E. Wodsedalek
	10.00 Mr. and Mrs. Edgar F. Zelle
	10.00 Professor C. H. Bailey
	10.00 Mr. William Robinson
	10.00 Dean W. F. Lasby
	10.00 Department of Geology
	10.00 Mr. Clarence E. Mickel
	10.00 Mr. Homer F. Barnes
	10.00 Mr. J. R. Parker
	10.00 Mr. H. A. Spoehr
	10.00 Mr. J. G. Leach
	10.00 Mr. J. D. Dole
	10.00 Mr. A. G. Ruggles
	7.00 School of Chemistry
	6.00 Dean W. C. Coffey
	5.50 Department of Preventive Medicine and Public Health
	5.00 Professor Clara M. Brown
	5.00 Professor Horace T. Morse

- 5.00 Agricultural Library
 - Minnie J. Brown
 - L. Mae Centerwall
 - Lilly A. Lindstrom
 - Harriet W. Sewall
 - Marie C. Spriestersbach
- 5.00 Mr. and Mrs. Carl Theodore Schmidt
- 5.00 Professor J. W. Buchta
 - Professor W. W. Wetzel
 - Professor Alfred O. C. Nier
- 5.00 Professor H. K. Hayes
- 5.00 Dr. Herbert C. Nelson
- 5.00 Dairy Division
- 5.00 University of Minnesota Alumnae Club
- 5.00 Department of Sociology and Social Work
- 5.00 Miss Gladys Branegan
- 5.00 Mr. Kenneth M. King
- 5.00 Dr. Cornelius B. Philip
- 5.00 Professor Henry A. Erikson
- 4.00 Mr. Andrew Boss
- 4.00 Misses Harriet and Vetta Goldstein
- 3.50 Mr. H. K. Wilson
- 3.00 Miss G. E. Stoddart
- 3.00 Dr. and Mrs. Oscar Magistad
- 3.00 Mr. M. N. Levine
- 3.00 Mr. Mykola H. Haydak
- 2.00 Professor Samuel Eddy
- 1.00 Mr. T. L. O'Hearn
- 1,000.00 From the John and Mary R. Markle Foundation for support of Dr. Albert V. Stoesser's investigation of water and electrolyte metabolism in intractable asthma
- 987.50 From the National Association of Silo Manufacturers to aid in the work carried on by Professor C. A. Hughes in an investigation of the life of linings of silos
- 900.00 From the American Medical Association for research on operative procedures for duodenal and gastric ulcers under the direction of Dr. Owen H. Wangensteen
- 700.00 From the North Star Woolen Mills for research on effects on wool fiber of known chemical treatments of wool
- 700.00 From the Archeological Research Fund to finance field research in archeology under the direction of Lloyd A. Wilford
 - \$200.00 Mr. C. C. Bovey
 - 200.00 Mrs. G. Nelson Dayton
 - 200.00 F. H. Peavey and Company, and Messrs. F. T. Heffelfinger and F. B. Wells
 - 100.00 Mrs. George Chase Christian
- 690.00 For research in zoology to be carried on by William G. Clark, instructor in zoology
 - \$400.00 American Academy of Arts and Sciences
 - 200.00 American Association for the Advancement of Science
 - 90.00 Scripps Metabolic Clinic
- 500.00 From the Dazian Foundation for Medical Research for research on the intermediary metabolism of creatine under the direction of Dr. Alan Hemingway
- 500.00 From the American Medical Association for research on calcification of bone under the direction of Dr. W. D. Armstrong
- 500.00 From the California Fruit Growers Exchange for research on the subendocardial and other hemorrhagic conditions in dogs in relation to the possible effects of the antihemorrhagic factor in citrus peel
- 500.00 From the National Tuberculosis Association for a study of the acidfast actinomycetes in relation to tuberculosis, under the direction of Dr. Arthur C. Henrici

500.00	From the American Philosophical Society for support of researches on colors of stars of large proper motions in the southern hemisphere under the direction of Professor Willem J. Luyten
500.00	From the American Philosophical Society for support of a study on asthma by Dr. A. V. Stoesser
400.00	From the American Potash Institute, Incorporated, for a study of the value of rapid tests for available plant nutrients in soils
350.00	From the National Research Council for a study of peripheral vision of aviators under the direction of Professor M. A. Tinker
350.00	From the United States Rubber Company for investigations on the fungicidal effectiveness of certain chemical seed protectants to be conducted in the Division of Plant Pathology and Botany
280.00	From the American Medical Association for support of the work of Dr. Joseph T. King on antagonistic effect of tissues on the action of sulfanilamide
200.00	From the Ciba Pharmaceutical Products, Incorporated, in support of Dr. Weisman's research on the effect of respiratory stimulants
200.00	From the Middle West Soil Improvement Committee for a study of the value of rapid tests for available plant nutrients on soils and of their application to the soils of Minnesota
180.00	From the Society of Sigma Xi for a study of the metabolism of fructose to be carried on by Dr. L. T. Samuels
150.00	From Mr. Roy M. Howe for research on potatoes

\$79,045.00

RESEARCH—ADDITIONS TO PREVIOUS GIFTS

\$68,549.24	Dr. Charles Fremont Dight research in eugenics. Bequest reported as \$75,000. Assets transferred to University amounted to \$143,549.24
18,000.00	National Mineral Wool Association Fund
3,500.00	From Minnesota Medical Foundation for support of the Human Serum Center, John Dwan Fund
2,000.00	Rock Analysis Laboratory
2,000.00	Northwestern Association of Ice Cream Manufacturers Research
1,700.00	Hiram Walker Distilling Company Research
1,500.00	American Potash Institute, Incorporated, Research
1,353.88	Milk Distributors Research
1,250.00	National Research Council Research on Endocrinology
1,250.00	American Creosoting Company Research (Wood Preservatives)
1,200.00	American Society of Heating and Ventilating Engineers Research
1,000.00	Farmer Seed and Nursery Research
	\$500.00 1939-40
	500.00 1940-41
1,000.00	The Firestone Fund
900.00	Joslyn Research Fund
750.00	Sandoz Chemical Works
700.00	Mead Johnson and Company Research
500.00	Winthrop Chemical Company Research
500.00	National Academy of Sciences (Gould Fund) Astronomical Research Fund
500.00	Central Fibre Corporation Research
500.00	Minnesota State Pharmaceutical Association Research
300.00	American Society of Civil Engineers—Research on Sedimentation at the Confluence of Rivers
300.00	American Society of Civil Engineers—Research on Air Resistance to Flow of Water in Open Conduits
300.00	Mead Johnson and Company Research in Pediatrics
100.00	Sigma Xi Research Fund
50.00	Medical Social Work Fund
10.00	Coffman Educational Research Foundation Fund

\$109,713.12

MISCELLANEOUS—NEW

\$ 5,040.89	Robert Meyer Clinical Associate Professorship Fund. Contributions by interested individuals to enable Dr. Robert Meyer of Berlin to carry on his work in obstetrics and gynecology at the Medical School of the University of Minnesota
	\$1,500.00 per year for two years—Emergency Committee in Aid of Displaced Foreign Medical Scientists
	1,309.55 Robert Meyer Fund
	951.34 Group of individuals interested in Dr. Meyer
	750.00 Manhattan Research Foundation
	200.00 Dr. Joseph Brettauer
	180.00 Charles S. Bacon Lectureship in Obstetrics Fund, University of Illinois—Lecture
	100.00 Mayo Foundation, Rochester, Minnesota—Lecture
	50.00 Minnesota Society of Obstetrics and Gynecology—Lecture
2,500.00	From anonymous donor for endowment of fine arts, the income to be used for purchase of original works and the principal to be available for equipment or distinctive features in a fine arts building, if and when constructed
2,000.00	From the Committee on Salary Contributions for a portrait of Mrs. L. D. Coffman
1,000.00	Annually from the Booth Memorial Hospital to reimburse the University for extra expense involved in maintaining maternity service at the Booth Memorial Hospital
535.50	Contributions by friends of the late Wilbur C. Hadden to be used for the purchase of books for the Arthur Upson Room, University Library, as a permanent memorial to the late Wilbur C. Hadden
183.54	From the Class of 1940, Central School of Agriculture, to apply on the purchase of an electric organ for the Auditorium and a loud speaker to be placed in the tower of the Old Home Building, or some other suitable place, University Farm
200.00	From the American Institute of Architects for a lecture or a series of lectures on the general subject of fine arts to be known as the Waid Fund Lectures
118.07	From the Pi Tau Pi Fraternity for the purchase of lithographs and prints on the history of journalism and printing as a memorial to the late Charles Levinson, a former sophomore student in journalism
100.00	From Archbishop John Gregory Murray to purchase Leonine Edition of the works of Thomas Aquinas for the Library
100.00	From the University High School Activities Fund to the Coffman Memorial Union Construction Fund
75.00	From Dr. William J. Gies for the purchase of books for the School of Dentistry
15.00	For the support of field work in anthropology of Leonard Mason, a graduate student, during the summer of 1940
	\$5.00 Dr. Walter R. Ramsey
	5.00 Dr. C. C. Chatterton
	5.00 Dr. L. E. Daugherty

\$11,868.00

MISCELLANEOUS—ADDITIONS TO PREVIOUS GIFTS

\$39,000.00	The Rockefeller Foundation—training for public administration for a period of four years, July 1, 1941 to June 30, 1945
1,500.00	For professorship in the School of Business Administration from the Emergency Committee in Aid of Displaced German Scholars
1,200.00	Minneapolis General Hospital Pediatrics Directorship
1,000.00	Psychology Department Chairmanship Fund
296.00	Endowment Fund for the School of Nursing
	\$266.00 School of Nursing Alumnae Association
	25.00 Miss Isabel Stewart
	5.00 Mrs. Edith Thompson Hagen
260.91	Itasca Park Student Corporation Fund, from the Itasca Park Student Corporation of 1939 for the purchase of a canoe and carrier, trailer for hauling boats, and reference books for the use of Summer Session students at the Lake Itasca Forestry and Biological Station
25.00	From the Twin City Nurserymen's Association for the Ruedlinger Memorial Fund
5.00	From Dr. Wilfried Heller for the Twin City Jewish-American Lectureship Fund
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\$43,286.91	

MISCELLANEOUS GIFTS

Collection of museum items (ethnological, botanical, and zoological) from Miss Mary Folwell

Music collection from the late Irving Jones for the University Library

Three pieces of old Sandwich glass from Bishop James E. Cassidy for the University Art Gallery.

Enlarged photograph of the late Dr. Roscoe W. Thatcher, to be placed in Thatcher Hall, from Mrs. Thatcher

Painting entitled "Vermont Ruin" by Meyer Wolfe from the New York World's Fair Corporation to the University Art Gallery

Guest book for the president's office from the Cloquet Forest Experiment Station

Bronze portrait plaque of Dean Emeritus Frederick J. Wulling from the Minnesota State Pharmaceutical Association, College of Pharmacy alumni, and others

Motor from the Briggs and Stratton Corporation of Milwaukee to the Engineering Laboratories

Six-cylinder Chevrolet truck engine from the Chevrolet central office to the Engineering Laboratories

Six-cylinder Dodge engine from the Chrysler Corporation to the Engineering Laboratories

Eight-cylinder Hudson engine from the Hudson Motor Car Company to the Engineering Laboratories

Drill core from the Pickands-Mather Company of Ely, Minnesota, to the Department of Geology and Mineralogy

Circulation fan from the B. F. Sturtevant Company to the Laboratory of Physiological Hygiene

Norwalk air compressor from the Morgan-Gerrish Company to the Department of Mechanical Engineering

A 900 h.p. Twin-row Wasp engine from the Pratt and Whitney Corporation to the Department of Aeronautical Engineering

Coal grinding machine from the Hobart Manufacturing Company to the Department of Mechanical Engineering

Finned direct expansion cooling coil from McQuay, Incorporated, to the Department of Chemical Engineering

Electric washing machine and stationary laundry tub for students' use from the Cloquet Student Corporation of 1939 to the Cloquet Forest Experiment Station

Microscope from Professor Emeritus Charles P. Sigerfoos to the Department of Zoology

One set each of the *Proceedings of the Parliament of South Australia*, 1851 to date, *South Australian Government Gazette*, and the *Parliamentary Debates (Hansard)* from the Public Library, Museum, and Art Gallery of South Australia

The following items from Edgar W. Weaver of the English Department:

- 8 volumes on fine arts
- 1 collection of *Famous Art Reproduced*
- 1 pamphlet on ancient American art
- 1 pamphlet on Zulvaga
- 1 magazine of the *New York Times*
- 76 war posters
- 118 clippings
- 156 reproductions

Copy of *A Treasury of Art Masterpieces*, edited by Thomas Craven, from Alice Moe and Norman Geske for the University Art Gallery

Technical library of the late Professor William T. Ryan to the Department of Electrical Engineering

Letters and papers containing material relating to the early history of the University from Mr. S. C. Williamson to the Library

Miscellaneous publications from Mr. John Cowles, president, *Minneapolis Star-Journal* to the Department of Journalism

461 magazines from Mr. Russel A. Plimpton and 36 magazines from Miss Emily McMillan for the pictorial and pamphlet files of the University Gallery

Collection of newspapers and periodicals from Mr. Thomas E. Steward to the Department of Journalism

Gift of magazines from the Minneapolis Institute of Arts to the University Art Gallery

The August 6, 1697, issue of the *London Gazette* from Mr. Reginald Coggeshall to the Department of Journalism

The September 21, 1883, issue of the *New York Evening Post* from Mr. C. V. Warren, Chicago, to the Department of Journalism

The January 1, 1935, anniversary number of the *London Times* from Mr. Richard L. Kozelka to the Department of Journalism

The following for the Law Library:

- 295 volumes from the library of the late James Paige
- 156 volumes from Mr. Paul J. Thompson, Minneapolis
- 257 volumes from Mr. George W. Strong, Minneapolis
- 184,718 gifts to the Library from 14,213 donors

CONCLUSION

The statistical reports of the registrar and of the comptroller and the most significant portions of the reports prepared by the deans of the colleges and heads of other university administrative units are presented on the following pages.

Respectfully submitted,

GUY STANTON FORD, *President*

REPORT OF THE REGISTRAR

REPORT OF THE REGISTRAR

To the President of the University:

SIR: I present the following report for the biennium 1938-40:

The tables show enrolment in the several units of college grade, the Extension Division, and in subcollegiate units. The net grand total of collegiate enrolments, including the Graduate School and the Summer Session but excluding all duplicate registrations, reached a total of 22,402 in 1938-39—an increase of 9.4 per cent over the previous year, and a total of 21,812 in 1939-40—a decrease of 2.6 per cent for the second year of the biennium. This decrease was due to a smaller net total enrolment for the Summer Session. The net total for the academic year showed an increase of 1.6 per cent for 1939-40.

The enrolment in subcollegiate units increased 8.8 per cent in 1938-39 with a further addition of 9.9 per cent in 1939-40. A loss of 9.4 per cent is recorded in extension enrolment for the first year of the biennium with an increase of 3.1 per cent for 1939-40. The total number of individuals enrolled in evening extension, correspondence study, and extension short courses for 1939-40 reached a total of 11,678. There were 1,500 individuals enrolled in 42 courses held in the Center for Continuation Study in 1938-39 and 2,048 individuals were enrolled in the 52 courses held in 1939-40.

In 1938-39 the University conferred 3,041 degrees as compared with 2,825 in the previous year, and during the last year of the biennium the total number of degrees reached 3,133. These figures include the Bachelor's degrees, professional degrees, and advanced degrees as well as the associate in arts degree conferred in the General College, and the two- and three-year diplomas conferred on graduates in Dental Hygiene and Nursing, respectively. A summary of the degrees conferred appears in Table VIIA.

Tables VIII, IX, and X show the sources of enrolment of new students from high schools, the sources of students admitted with advanced standing, and the geographical distribution of all university students for each year of the biennium.

TABLE I. COLLEGIATE STUDENTS BY SCHOOLS AND COLLEGES, 1938-40

College or School	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
General College								
Second year	174	127	301	231	155	386	85	.....
First year	434	273	707	475	281	756	49	.....
Adult special	4	6	10	2	1	3	.....	7
Totals	612	406	1,018	708	437	1,145	127	.....
University College								
Seniors	17	14	31	25	6	31	.....	.....
Juniors	13	8	21	14	8	22	1	.....
Sophomores .....	.....	.....	.....	2	1	3	3	.....
Freshmen	2	.....	2	1	.....	1	.....	1
Adult special	1	.....	1	1	1	2	1	.....
Totals	33	22	55	43	16	59	4	.....
Science, Literature, and the Arts								
Seniors	213	242	455	201	212	413	.....	42
Juniors	281	239	520	302	278	580	60	.....
Sophomores	1,372	891	2,263	1,314	850	2,164	.....	99
Freshmen	1,049	858	1,907	1,082	889	1,971	64	.....
Adult special	72	104	176	81	107	188	12	.....
Totals	2,987	2,334	5,321	2,980	2,336	5,316	.....	5

TABLE I.—Continued

College or School	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Institute of Technology								
Seniors	480	12	492	570	6	576	84	.....
Juniors	586	7	593	523	11	534	.....	59
Sophomores	618	3	621	658	3	661	40	.....
Freshmen	718	5	723	764	5	769	46	.....
Adult special	9	.....	9	16	.....	16	7	.....
Totals	2,411	27	2,438	2,531	25	2,556	118	.....
Agriculture, Forestry, and Home Economics								
Seniors	222	115	337	278	198	476	139	.....
Juniors	196	139	335	181	206	387	52	.....
Sophomores	359	267	626	318	249	567	.....	59
Freshmen	316	198	514	268	212	480	.....	34
Adult special	26	20	46	16	20	36	.....	10
Totals	1,119	739	1,858	1,061	885	1,946	88	.....
Law								
Seniors	63	1	64	42	3	45	.....	19
Juniors	46	6	52	73	3	76	24	.....
Sophomores	95	4	99	87	3	90	.....	9
Freshmen	120	6	126	124	2	126	.....	.....
Adult special	1	.....	1	2	.....	2	1	.....
Totals	325	17	342	328	11	339	.....	3
Medicine								
Interns	120	5	125	126	7	133	8	.....
Seniors	119	8	127	114	7	121	.....	6
Juniors	116	8	124	99	7	106	.....	18
Sophomores	103	6	109	99	8	107	.....	2
Freshmen	117	12	129	110	12	122	.....	7
Adult special	3	.....	3	3	.....	3	.....	.....
Totals	578	39	617	551	41	592	.....	25
Medical Technologists								
Seniors .....	.....	44	44	1	48	49	5	.....
Juniors	1	40	41	.....	51	51	10	.....
Adult special .....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	1	84	85	1	99	100	15	.....
Nursing								
Third year .....	.....	65	65	.....	72	72	7	.....
Second year .....	.....	100	100	.....	67	67	.....	33
First year .....	.....	159	159	.....	193	193	34	.....
Affiliated .....	.....	389	389	.....	385	385	.....	4
Adult special .....	.....	40	40	.....	27	27	.....	13
Totals .....	.....	753	753	.....	744	744	.....	9
Public Health Nursing								
Seniors .....	.....	49	49	.....	53	53	4	.....
Juniors .....	.....	17	17	.....	12	12	.....	5
Sophomores .....	.....	23	23	.....	10	10	.....	13
Freshmen .....	.....	.....	.....	.....	.....	.....	.....	.....
Adult special .....	.....	71	71	.....	83	83	12	.....
Totals .....	.....	160	160	.....	158	158	.....	2

TABLE I.—Continued

College or School	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Dentistry								
Seniors	101	3	104	87		87		17
Juniors	80	2	82	2		2		80
Sophomores	62		62	61		61		1
Freshmen				60	1	61	61	
Adult special				1		1	1	
Totals	243	5	248	211	1	212		36
Dental Hygienists								
Second year		49	49		36	36		13
First year		41	41		56	56	15	
Totals		90	90		92	92	2	
Pharmacy								
Seniors	35	7	42	37	11	48	6	
Juniors	33	9	42	33	4	37		5
Sophomores	39	4	43	41	8	49	6	
Freshmen	39	8	47	54	7	61	14	
Adult special	4		4	1		1		3
Totals	150	28	178	166	30	196	18	
Education								
Postgraduate				12	5	17	17	
Seniors	176	357	533	174	377	551	18	
Juniors	173	344	517	195	328	523	6	
Sophomores	96	95	191	98	89	187		4
Freshmen	108	87	195	116	73	189		6
Adult special	134	253	387	155	297	452	65	
Totals	687	1,136	1,823	750	1,169	1,919	96	
Business Administration								
Seniors	302	51	353	252	47	299		54
Juniors	460	90	550	425	89	514		36
Adult special	15	6	21	19	6	25	4	
Totals	777	147	924	696	142	838		86
Graduates (including Mayo)	1,807	634	2,441	1,923	620	2,543	102	
Total academic year	11,730	6,621	18,351	11,949	6,806	18,755	404	
Less duplicates	670	431	1,101	705	524	1,229	128	
Net totals academic year	11,060	6,190	17,250	11,244	6,282	17,526	276	
Summer Session								
First term	2,575	3,138	5,713	2,566	3,046	5,612		101
Second term	1,289	1,328	2,617	1,535	1,297	2,832	215	
Totals	3,864	4,466	8,330	4,101	4,343	8,444		114
Less duplicates	757	506	1,263	942	849	1,791	528	
Total Summer Session enrolment	3,107	3,960	7,067	3,159	3,494	6,653		414
Mayo Foundation (graduates)	293	15	308	353	9	362	54	
Net total Summer Session enrolment	3,400	3,975	7,375	3,512	3,503	7,015		360
Grand totals, collegiate	14,460	10,165	24,625	14,756	9,785	24,541		84
Less duplicates	1,498	725	2,223	1,767	962	2,729	506	
Net grand totals, collegiate	12,962	9,440	22,402	12,989	8,823	21,812		590

TABLE IIA. COLLEGIATE ENROLMENT BY QUARTERS, 1938-39

College or School	First Summer Session, 1938			Second Summer Session, 1938			Fall			Winter			Spring			Total Individual Registration*		
	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
	General College	15	9	24	3	1	4	499	317	816	479	322	801	437	316	753	626	415	1,041
University College	2	6	8	1	4	5	24	19	43	26	17	43	26	17	43	34	26	60
Science, Literature, and the Arts.....	382	470	852	219	161	380	2,623	2,154	4,777	2,545	1,992	4,537	2,270	1,815	4,085	3,273	2,739	6,012
Institute of Technology	248	8	256	182	1	183	2,304	25	2,329	2,143	22	2,165	2,015	20	2,035	2,509	31	2,540
Agriculture, Forestry, and Home Economics	129	124	253	16	10	26	1,007	686	1,693	1,017	659	1,676	824	588	1,412	1,161	798	1,959
Law	2	1	3	1	.....	1	323	16	339	267	16	283	309	15	324	327	18	345
Medicine	266	11	277	151	7	158	530	35	565	547	28	575	522	36	558	621	46	667
Medical Technologists .....	.....	30	30	.....	14	14	1	64	65	1	45	46	.....	37	37	1	98	99
Public Health Nursing .....	.....	79	79	.....	22	22	.....	115	115	.....	123	123	.....	108	108	.....	231	231
Nursing .....	.....	536	536	.....	551	551	.....	553	553	.....	615	615	.....	736	736	.....	779	779
Dentistry	61	1	62	45	1	46	241	4	245	238	2	240	234	2	236	265	6	271
Dental Hygienists .....	.....	3	3	.....	3	3	.....	90	90	.....	78	78	.....	70	70	.....	92	92
Pharmacy	21	5	26	17	5	22	141	27	168	138	25	163	131	26	157	153	30	183
Education	501	1,248	1,749	141	320	461	535	903	1,438	552	880	1,432	531	888	1,419	1,107	2,472	3,579
Business Administration	104	29	133	71	15	86	639	127	766	652	124	776	639	124	763	847	166	1,013
Graduate (including Mayo)	1,136	593	1,729	735	228	963	1,429	436	1,865	1,465	450	1,915	1,114	443	1,557	2,537	1,163	3,700
Religious leaders	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Totals	2,868	3,153	6,021	1,582	1,343	2,925	10,296	5,571	15,867	10,070	5,398	15,468	9,052	5,241	14,293	13,462	9,110	22,572
Less duplicates	41	38	79	5	4	9	231	100	331	250	135	385	223	114	337	764	504	1,268
Net totals	2,827	3,115	5,942	1,577	1,339	2,916	10,065	5,471	15,536	9,820	5,263	15,083	8,829	5,127	13,956	12,698	8,606	21,304

* This represents a net count of individuals with all duplicates deducted.

TABLE IIB. COLLEGIATE ENROLMENT BY QUARTERS, 1939-40

College or School	First Summer Session, 1939			Second Summer Session, 1939			Fall			Winter			Spring			Total Individual Registration*		
	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
General College	9	1	10	5	1	6	576	357	933	594	354	948	534	352	886	718	438	1,156
University College	3	5	8	3		3	30	15	45	32	15	47	35	14	49	45	19	64
Science, Literature, and the Arts.....	460	539	999	233	195	428	2,609	2,134	4,743	2,526	2,012	4,538	2,274	1,850	4,124	3,350	2,786	6,136
Institute of Technology	242	8	250	188	3	191	2,412	22	2,434	2,292	19	2,311	2,127	7	2,134	2,640	28	2,668
Agriculture, Forestry, and Home Economics	82	100	182	14	38	52	949	762	1,711	930	726	1,656	797	681	1,478	1,096	965	2,061
Law	6	1	7	3		3	324	11	335	316	10	326	309	3	312	331	12	343
Medicine	255	19	274	258	19	277	491	37	528	511	37	548	501	36	537	725	57	782
Medical Technologists		25	25		24	24		87	87	1	53	54		47	47		112	112
Public Health Nursing		115	115		82	82		118	118		112	112		94	94		269	269
Nursing		433	433		330	330		546	546		597	597		679	679		1,075	1,075
Dentistry	71		71	38		38	210	1	211	204	1	205	194	1	195	231		231
Dental Hygienists		6	6		1	1		91	91		81	81		77	77		94	94
Pharmacy	21	4	25	18	4	22	161	28	189	157	25	182	151	25	176	170	29	199
Education	347	1,147	1,494	181	314	495	611	959	1,570	569	879	1,448	557	917	1,474	1,191	2,473	3,664
Business Administration	91	25	116	72	11	83	559	123	682	577	119	696	565	115	680	825	178	1,003
Graduate (including Mayo)	1,303	626	1,929	842	282	1,124	1,601	457	2,058	1,573	424	1,997	1,486	435	1,921	2,821	1,222	4,043
Totals	2,890	3,054	5,944	1,855	1,304	3,159	10,533	5,748	16,281	10,282	5,464	15,746	9,530	5,333	14,863	14,143	9,757	23,900
Less duplicates	41	25	66	11	4	15	206	177	383	230	172	402	209	179	388	1,035	775	1,810
Net totals	2,849	3,029	5,878	1,844	1,300	3,144	10,327	5,571	15,898	10,052	5,292	15,344	9,321	5,154	14,475	13,108	8,982	22,090

* This represents a net count of individuals with all duplicates deducted.

THE PRESIDENT'S REPORT

TABLE III. SUBCOLLEGIATE STUDENTS, 1938-40

School or Course	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Central School of Agriculture								
Three-year course:								
Seniors	110	49	159	114	46	160	1	.....
Juniors	83	36	119	68	31	99	.....	20
Freshmen	92	29	121	70	31	101	.....	20
Unclassed	61	13	74	42	9	51	.....	23
Totals	346	127	473	294	117	411	.....	62
Intermediate	23	13	36	16	10	26	.....	10
Total school registration	369	140	509	310	127	437	.....	72
Northwest School of Agriculture								
Three-year course:								
Seniors	73	46	119	73	39	112	.....	7
Juniors	88	41	129	87	32	119	.....	10
Freshmen	100	37	137	67	29	96	.....	41
Unclassed	17	10	27	19	15	34	7	.....
Totals	278	134	412	246	115	361	.....	51
Intermediate	45	22	67	38	27	65	.....	2
Total school registration	323	156	479	284	142	426	.....	53
West Central School of Agriculture								
Three-year course:								
Seniors	61	22	83	66	20	86	3	.....
Juniors	74	15	89	65	23	88	.....	1
Freshmen	96	29	125	66	30	96	.....	29
Unclassed	20	11	31	18	12	30	.....	1
Totals	251	77	328	215	85	300	.....	28
Intermediate	25	21	46	43	24	67	21	.....
Total school registration	276	98	374	258	109	367	.....	7
North Central School of Agriculture								
Three-year course:								
Seniors	18	.....	18	15	.....	15	.....	3
Juniors	10	.....	10	7	.....	7	.....	3
Freshmen	20	.....	20	31	.....	31	11	.....
Unclassed	9	.....	9	10	.....	10	1	.....
Totals	57	.....	57	63	.....	63	6	.....
Intermediate	4	.....	4	7	.....	7	3	.....
Total school registration	61	.....	61	70	.....	70	9	.....
University High School	195	194	389	185	189	374	.....	15
Nursery School and Kindergarten	33	40	73	45	37	82	9	.....
Net totals, schools	1,257	628	1,885	1,152	604	1,756	.....	129

TABLE III.—Continued

School or Course	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Short Courses								
Creamery Operators	41	.....	41	44	.....	44	3	.....
Advanced Creamery Operators	35	.....	35	59	.....	59	24	.....
Annual Women's Week (Crookston) .....	.....	159	159	.....	175	175	16	.....
4-H Club (Crookston)	490	630	1,120	626	771	1,397	277	.....
4-H Club (Grand Rapids)	115	174	289	141	261	402	113	.....
4-H Club (Morris)	272	319	591	363	485	848	257	.....
Wildlife Conservation	82	.....	82	87	6	93	11	.....
Ice Cream Manufacturers	43	.....	43	48	1	49	6	.....
Scout Masters	90	.....	90	73	.....	73	.....	17
Y.M.C.A. Swimming Group (Guttersen School)	16	.....	16	.....	.....	.....	.....	16
Swimming (Crookston) .....	.....	.....	.....	.....	27	27	27	.....
Homemakers' Week (Morris) .....	.....	262	262	.....	219	219	.....	43
Hybrid Corn Growers	154	.....	154	.....	.....	.....	.....	154
Refrigerator Locker	58	.....	58	66	.....	66	8	.....
Commercial Florists and Re- tailers .....	.....	.....	.....	80	5	85	85	.....
Grand totals, short courses	1,396	1,544	2,940	1,587	1,950	3,537	597	.....
Less duplicates	1	.....	1	2	1	3	2	.....
Net total short courses	1,395	1,544	2,939	1,585	1,949	3,534	595	.....
Grand totals, schools and short courses	2,652	2,172	4,824	2,737	2,553	5,290	466	.....
Less duplicates	25	19	44	22	13	35	.....	9
Net totals, schools and short courses	2,627	2,153	4,780	2,715	2,540	5,255	475	.....

TABLE IVA. EXTENSION STUDENTS, 1938-40

Course	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
General Extension	4,215	3,998	8,213	4,331	4,098	8,429	216	.....
Extension Short Courses								
Dental Short Course								
Post Convention Dental.....	62	.....	62	35	.....	35	.....	27
Full Dentures .....	.....	.....	.....	40	.....	40	40	.....
Girl Scout Leadership .....	.....	17	17	.....	16	16	.....	1
Stresses in Structures	20	.....	20	.....	.....	.....	.....	20
Engineer-Custodian Training .....	.....	.....	.....	49	.....	49	49	.....
Legal Surveying .....	.....	.....	.....	18	.....	18	18	.....
Estimating	8	.....	8	.....	.....	.....	.....	8
Embalming	83	6	89	74	2	76	.....	13
Textiles, Montgomery Ward	6	14	20	.....	.....	.....	.....	20
Janitors and Engineers	57	.....	57	.....	.....	.....	.....	57
Structural Design	32	.....	32	.....	.....	.....	.....	32
Grand totals, short courses	268	37	305	216	18	234	.....	71
Less duplicates	10	.....	10	.....	.....	.....	.....	.....
Net totals, short courses	258	37	295	216	18	234	.....	61
Correspondence Study	1,231	1,780	3,011	1,332	1,889	3,221	210	.....
Grand totals, extension	5,704	5,815	11,519	5,879	6,005	11,884	365	.....
Less duplicates	75	113	188	103	103	206	18	.....
Net totals, extension	5,629	5,702	11,331	5,776	5,902	11,678	347	.....

TABLE IVB. CENTER FOR CONTINUATION STUDY, 1938-40

Institutes	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Assessors .....	.....	.....	.....	59	2	61	61	.....
Cardiology .....	.....	.....	.....	30	.....	30	30	.....
Curriculum .....	.....	.....	.....	21	42	63	63	.....
Diagnostic Roentgenology	36	.....	36	36	.....	36	.....	.....
Diseases of Infancy and Child- hood	31	4	35	46	3	49	14	.....
Diseases and Injuries of Bones and Joints	21	.....	21	.....	.....	.....	.....	21
Diseases of the Skin.....	19	.....	19	.....	.....	.....	.....	19
Diseases of Blood and Blood- Forming Organs	12	.....	12	.....	.....	.....	.....	12
Diseases of Genitourinary Tract	23	.....	23	.....	.....	.....	.....	23
Electrocardiography	30	.....	30	27	.....	27	.....	3
Regional Institute of Employ- ment Security .....	.....	.....	.....	41	3	44	44	.....
General Medicine	26	1	27	.....	.....	.....	.....	27
General Surgery	40	.....	40	.....	.....	.....	.....	40
Gynecologic Tumors .....	.....	.....	.....	20	.....	20	20	.....
Gastroenterology	31	.....	31	.....	.....	.....	.....	31
Health Problems of College Students .....	.....	.....	.....	30	45	75	75	.....
Hospital Administration	25	68	93	21	49	70	.....	23
Instruction in School Use of Radio .....	.....	.....	.....	7	17	24	24	.....
Instruction on Improving Teach- ing Personnel .....	.....	.....	.....	25	7	32	32	.....

TABLE IVB.—Continued

Institutes	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Instruction—Audio Visual Education	31	8	39	.....	.....	.....	.....	39
Hospital Course: Operating Room Nurses	1	110	111	.....	.....	.....	.....	111
Institute of Personnel Procedure	25	34	59	.....	.....	.....	.....	59
Institute for Probation and Parole Officers	28	13	41	.....	.....	.....	.....	41
Medical Record Librarians .....	.....	88	88	.....	.....	.....	.....	88
Medical Social Service .....	.....	.....	.....	.....	34	34	.....	34
Milk Sanitation Seminar .....	.....	.....	.....	.....	43	2	.....	45
Institute on Library Service .....	.....	.....	.....	.....	26	26	.....	26
Nervous and Mental Diseases	10	.....	10	.....	.....	.....	.....	10
Neurologic Roentgenology .....	.....	.....	.....	.....	53	1	.....	54
Otolaryngology and Ophthalmology	73	.....	73	.....	.....	.....	.....	16
Obstetrics	45	2	47	.....	.....	.....	.....	81
Play Production .....	.....	.....	.....	.....	35	35	.....	35
Postgraduate Course in Air Conditioning	96	.....	96	.....	.....	.....	.....	65
Postgraduate Course in Foundry Contracting .....	.....	.....	.....	.....	.....	.....	.....	25
Postgraduate Course in Nursing Education .....	.....	.....	.....	.....	62	62	.....	62
Postgraduate Course in Medical Technology .....	.....	.....	.....	.....	6	67	.....	73
Postgraduate Course in Clinical Allergy	21	.....	21	.....	.....	.....	.....	17
Postgraduate Course in Electrocardiography .....	.....	.....	.....	.....	.....	.....	.....	25
Postgraduate Dental Course in Stabilized Lower Dentistry and Immediate Dental Service	35	.....	35	.....	.....	.....	.....	35
Play Production .....	.....	.....	.....	.....	3	16	.....	19
Postgraduate Course in Proctology .....	.....	.....	.....	.....	.....	.....	.....	24
Postgraduate Course in Taxation .....	.....	.....	.....	.....	.....	.....	.....	68
Postgraduate Medical Course in Radiation Physics	21	2	23	.....	.....	.....	.....	.....
Proctology	20	.....	20	.....	.....	.....	.....	23
Postgraduate Course in Medical Social Work .....	.....	31	31	.....	.....	.....	.....	.....
Postgraduate Course in Dietetics .....	.....	81	81	.....	.....	.....	.....	107
Postgraduate Course in Machine Design	28	.....	28	.....	.....	.....	.....	.....
Postgraduate Course in Physical Therapy Technology .....	.....	.....	.....	.....	2	57	.....	59
Pharmaceutical Institute	50	7	57	.....	.....	.....	.....	39
Protection of Newborn and Premature Infants .....	.....	.....	.....	.....	52	2	.....	54
Plumbing Inspectors School	8	.....	8	.....	.....	.....	.....	3
Plumbing and Sewer Schools .....	.....	.....	.....	.....	1	.....	.....	1
Police School .....	.....	.....	.....	.....	84	.....	.....	84
Recreation Leadership .....	.....	.....	.....	.....	11	7	.....	18
Redirection of the High School Curriculum	22	11	33	.....	.....	.....	.....	.....

TABLE IVB.—Continued

Institutes	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Rehabilitation Training Conference				67	37	104	104	
Sewer School				44		44	44	
Symposium on Handling Bulk Materials				41		41	41	
Surgery				31		31	31	
Seminar in Creative Drama	1	41	42					42
Social Workers West of the Mississippi	5	29	34					34
Seminar on Spending for Social Welfare and Business Recovery		25	25					25
Sewer Operators Institute	23		23					23
School for Plumbing Inspectors and Second Annual Sewer Schools	1		1					1
Training Conference in Vocational Education in Agriculture				25		25	25	
Teacher Training Institute				6	18	24	24	
Tuberculosis	7	2	9					9
Third Annual Waterworks School and School for Plumbing Inspectors, and Second Annual Sewer School	14		14					14
University of Minnesota Clinics				20		20	20	
Urology				24		24	24	
Venereal Diseases				25		25	25	
Waterworks School	29		29	20		20		9
Water and Plumbing School	2		2	3		3	1	
Water and Sewer Schools	2		2	8		8	6	
Waterworks, Plumbing, and Sewer School				15		15	15	
WPA Nursery School Teachers and Parental Education Leaders		70	70		62	62		8
Welding	48	1	49					49
Grand totals	940	628	1,568	1,409	718	2,127	559	
Less duplicates	57	11	68	73	6	79	11	
Net totals	883	617	1,500	1,336	712	2,048	548	

TABLE V. SUMMARY, 1938-40

Division	Year 1938-39			Year 1939-40			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Collegiate students	12,962	9,440	22,402	12,989	8,823	21,812		590
Subcollegiate students	2,627	2,153	4,780	2,715	2,540	5,255	475	
Totals	15,589	11,593	27,182	15,704	11,363	27,067		115
Less duplicates	27	10	37	45	12	57	20	
Net totals	15,562	11,583	27,145	15,659	11,351	27,010		135
Extension students	5,629	5,702	11,331	5,776	5,902	11,678	347	
Center for Continuation Study	883	617	1,500	1,336	712	2,048	548	
Grand totals	22,074	17,902	39,976	22,771	17,965	40,736	760	
Less duplicates	1,049	1,116	2,165	1,232	1,198	2,430	265	
Net grand totals	21,025	16,786	37,811	21,539	16,767	38,306	495	

TABLE VI. COMPARATIVE REGISTRATION FIGURES, 1938-40

College or School	Year 1938-39			Year 1939-40			Gain		Loss	
	M	W	T	M	W	T	M	W	M	W
General College	612	406	1,018	708	437	1,145	96	31		
University College	33	22	55	43	16	59	10			6
Science, Literature, and the Arts	2,987	2,334	5,321	2,980	2,336	5,316		2	7	
Institute of Technology	2,411	27	2,438	2,531	25	2,556	120			2
Agriculture, Forestry, and Home Economics (including schools of agriculture, and short courses)	3,551	2,698	6,249	3,591	3,236	6,827	40	538		
Law	325	17	342	328	11	339	3			6
Medicine (including Medical Technologists, Nursing, and Public Health Nursing)	579	1,036	1,615	552	1,042	1,594		6	27	
Dentistry (including Dental Hygienists)	243	95	338	211	93	304			32	2
Pharmacy	150	28	178	166	30	196	16	2		
Education (including University High School)	882	1,330	2,212	935	1,358	2,293	53	28		
Business Administration	777	147	924	696	142	838			81	5
Graduate School	1,807	634	2,441	1,923	620	2,543	116			14
Summer Session (net)	3,400	3,975	7,375	3,512	3,503	7,015	112			472
Totals	17,757	12,749	30,506	18,176	12,849	31,025	419	100		
Less duplicates	2,195	1,166	3,361	2,517	1,498	4,015	322	332		
Net totals	15,562	11,583	27,145	15,659	11,351	27,010	97			232
Extension										
General Extension	4,215	3,998	8,213	4,331	4,098	8,429	116	100		
Short courses	258	37	295	216	18	234			42	19
Correspondence study	1,231	1,780	3,011	1,332	1,889	3,221	101	109		
Totals	5,704	5,815	11,519	5,879	6,005	11,884	175	190		
Less duplicates	75	113	188	103	103	206	28			10
Net totals	5,629	5,702	11,331	5,776	5,902	11,678	147	200		
Center for Continuation Study	883	617	1,500	1,336	712	2,048	453	95		
Summary										
Totals, resident students	15,562	11,583	27,145	15,659	11,351	27,010	97			232
Totals, extension students	5,629	5,702	11,331	5,776	5,902	11,678	147	200		
Totals, Center for Continuation Study	883	617	1,500	1,336	712	2,048	453	95		
Grand totals	22,074	17,902	39,976	22,771	17,965	40,736	697	63		
Less duplicates	1,049	1,116	2,165	1,232	1,198	2,430	183	82		
Net grand totals	21,025	16,786	37,811	21,539	16,767	38,306	514			19

TABLE VIII. DEGREES CONFERRED, 1938-40

College and Degree	Year 1938-39			Year 1939-40		
	Men	Women	Total	Men	Women	Total
Science, Literature, and the Arts						
B.A. <i>summa cum laude</i>	3	1	4	3	2	5
B.A. <i>magna cum laude</i>	13	8	21	8	13	21
B.A. <i>cum laude</i>	21	17	38	16	15	31
B.S. <i>magna cum laude</i> .....	.....	3	3	.....	.....	.....
B.S. <i>cum laude</i> .....	.....	8	8	3	7	10
B.A.	145	102	247	131	76	207
B.S.	12	69	81	8	59	67
Institute of Technology						
Bachelor of aeronautical engineering with high distinction	1	.....	1	1	.....	1
Bachelor of aeronautical engineering with distinction .....	.....	.....	.....	9	.....	9
Bachelor of aeronautical engineering	36	.....	36	28	.....	28
Bachelor of agricultural engineering with distinction	1	.....	1	.....	.....	.....
Bachelor of agricultural engineering	7	.....	7	3	.....	3
Bachelor of architectural engineering .....	.....	.....	.....	1	.....	1
Bachelor of civil engineering with high distinction	2	.....	2	.....	.....	.....
Bachelor of civil engineering with dis- tinction	3	.....	3	4	.....	4
Bachelor of civil engineering	37	1	38	40	.....	40
Bachelor of electrical engineering with high distinction	1	.....	1	1	.....	1
Bachelor of electrical engineering with distinction	9	.....	9	8	.....	8
Bachelor of electrical engineering	46	.....	46	44	.....	44
Bachelor of mechanical engineering with high distinction	1	.....	1	2	.....	2
Bachelor of mechanical engineering with distinction	7	.....	7	7	.....	7
Bachelor of mechanical engineering	50	.....	50	67	.....	67
Bachelor of architecture with distinc- tion	1	.....	1	1	.....	1
Bachelor of architecture	10	1	11	12	.....	12
Bachelor of interior architecture with distinction	1	.....	1	.....	.....	.....
Bachelor of interior architecture	1	5	6	.....	4	4
Bachelor of chemistry with high dis- tinction	2	.....	2	1	.....	1
Bachelor of chemistry with distinction	2	.....	2	3	.....	3
Bachelor of chemistry	12	3	15	12	.....	12
Bachelor of chemical engineering with high distinction	2	.....	2	3	.....	3
Bachelor of chemical engineering with distinction	12	.....	12	19	.....	19
Bachelor of chemical engineering	60	.....	60	59	.....	59
Bachelor of physics with distinction	1	.....	1	.....	.....	.....
Bachelor of physics	2	.....	2	.....	.....	.....
Engineer of mines	16	.....	16	1	.....	1
Engineer of mines in geology	4	.....	4	4	.....	4
Engineer of mines in petroleum	4	.....	4	1	.....	1
Metallurgical engineer	10	.....	10	4	.....	4
Bachelor of geological engineering .....	.....	.....	.....	1	.....	1
Bachelor of metallurgical engineering with high distinction .....	.....	.....	.....	1	.....	1

TABLE VIIA.—Continued

College and Degree	Year 1938-39			Year 1939-40		
	Men	Women	Total	Men	Women	Total
Bachelor of metallurgical engineering with distinction .....	.....	.....	.....	4	.....	4
Bachelor of metallurgical engineering .....	.....	.....	.....	6	.....	6
Bachelor of mining engineering with distinction .....	.....	.....	.....	1	.....	1
Bachelor of mining engineering .....	.....	.....	.....	1	.....	1
Bachelor of petroleum engineering .....	.....	.....	.....	4	.....	4
Agriculture						
B.S. with high distinction (agriculture)	6	.....	6	.....	.....	.....
B.S. with distinction (agriculture)	2	.....	2	3	.....	3
B.S. (agriculture)	40	.....	40	51	.....	51
B.S. with high distinction (science specialization)	1	.....	1	1	.....	1
B.S. with distinction (science specialization)	7	.....	7	6	.....	6
B.S. (science specialization)	14	.....	14	14	.....	14
B.S. with high distinction (forestry)	2	.....	2	2	.....	2
B.S. with distinction (forestry)	6	.....	6	2	.....	2
B.S. (forestry)	69	.....	69	70	.....	70
B.S. with high distinction (home economics) .....	.....	.....	.....	.....	2	2
B.S. with distinction (home economics) .....	.....	2	2	.....	8	8
B.S. (home economics) .....	.....	57	57	.....	53	53
Agriculture and Education						
B.S. with high distinction (agricultural education)	1	.....	1	1	.....	1
B.S. with distinction (agricultural education)	2	.....	2	1	.....	1
B.S. (agricultural education)	14	.....	14	25	.....	25
B.S. with high distinction (home economics education) .....	.....	.....	.....	.....	1	1
B.S. with distinction (home economics education) .....	.....	3	3	.....	7	7
B.S. (home economics education) .....	.....	31	31	.....	42	42
Agriculture and Business Administration						
B.S. (agriculture and business)	3	.....	3	3	.....	3
Law						
L.L.B.	62	2	64	64	3	67
Bachelor of science in law	38	2	40	56	2	58
Medicine						
M.D.	103	5	108	116	3	119
M.B.	119	8	127	111	6	117
B.S. <i>magna cum laude</i> (medical technologists) .....	.....	1	1	.....	.....	.....
B.S. <i>cum laude</i> (medical technologists) .....	.....	11	11	.....	.....	.....
B.S. with high distinction (medicine)	2	.....	2	.....	.....	.....
B.S. with high distinction (public health nursing) .....	.....	.....	.....	.....	2	2
B.S. with distinction (medicine)	14	4	18	19	.....	19
B.S. with distinction (medical technologists) .....	.....	.....	.....	.....	11	11
B.S. with distinction (public health nursing) .....	.....	3	3	.....	8	8
B.S. (medicine)	62	1	63	64	2	66
B.S. (medical technologists) .....	.....	33	33	1	26	27
B.S. (public health nursing) .....	.....	18	18	.....	40	40
Graduate in nursing .....	.....	46	46	.....	84	84

TABLE VIIA.—Continued

College and Degree	Year 1938-39			Year 1939-40		
	Men	Women	Total	Men	Women	Total
Dentistry						
D.D.S.	100	2	102	75	.....	75
Graduate in dental hygiene .....	.....	29	29	.....	31	31
Pharmacy						
B.S. in pharmacy	31	4	35	36	11	47
Education						
B.S. with high distinction	2	10	12	2	17	19
B.S. with distinction	9	55	64	10	47	57
B.S.	99	281	380	96	242	338
M.Ed. ....	.....	.....	.....	10	2	12
Business Administration						
B.B.A. with distinction	16	1	17	10	4	14
B.B.A.	218	44	262	188	49	237
University College						
B.A. <i>cum laude</i>	1	5	6	3	3	6
B.A.	4	6	10	9	7	16
B.S. <i>magna cum laude</i>	1	.....	1	.....	.....	.....
B.S. <i>cum laude</i>	1	.....	1	.....	.....	.....
B.S.	4	2	6	3	.....	3
General College						
A.A.	41	25	66	68	43	111
Graduate School						
M.A.	147	74	221	164	80	244
M.A. in public administration	5	2	7	2	.....	2
M.S.	71	19	90	76	24	100
M.B.A.	3	.....	3	2	.....	2
M.S. in aeronautical engineering	3	.....	3	1	.....	1
M.S. in agricultural engineering	3	.....	3	4	.....	4
M.S. in architectural engineering	1	.....	1	.....	.....	.....
M.S. in chemical engineering	2	.....	2	6	.....	6
M.S. in civil engineering	3	.....	3	2	.....	2
M.S. in electrical engineering	2	.....	2	5	.....	5
M.S. in mechanical engineering	5	.....	5	4	.....	4
M.S. in mining .....	.....	.....	.....	1	.....	1
M.S. in psychometrics	2	3	5	1	2	3
Civil engineer	2	.....	2	.....	.....	.....
Electrical engineer	1	.....	1	.....	.....	.....
Mechanical engineer .....	.....	.....	.....	1	.....	1
Chemical engineer	1	.....	1	.....	.....	.....
M.S. in anesthesia	1	.....	1	4	.....	4
M.S. in bacteriology	2	.....	2	.....	.....	.....
M.S. in dermatology and syphilology .....	.....	.....	.....	3	.....	3
M.S. in dentistry	1	.....	1	1	.....	1
M.S. in dental surgery .....	.....	.....	.....	2	.....	2
M.S. in medicine	20	.....	20	14	.....	14
M.S. in neurology	1	.....	1	1	.....	1
M.S. in neurology and psychiatry .....	.....	.....	.....	2	.....	2
M.S. in neuropsychiatry	1	1	2	.....	.....	.....
M.S. in obstetrics and gynecology	1	.....	1	4	1	5
M.S. in ophthalmology	2	.....	2	3	.....	3
M.S. in otolaryngology	2	.....	2	1	.....	1
M.S. in otolaryngology and rhinology .....	.....	.....	.....	1	.....	1
M.S. in orthopedic surgery	4	.....	4	2	.....	2
M.S. in pathology	2	1	3	.....	.....	.....
M.S. in pediatrics	1	2	3	1	.....	1
M.S. in physical medicine .....	.....	.....	.....	1	.....	1
M.S. in proctology	1	.....	1	2	.....	2
M.S. in radiology .....	.....	.....	.....	2	.....	2
M.S. in surgery	16	.....	16	23	.....	23

TABLE VIIA.—Continued

College and Degree	Year 1938-39			Year 1939-40		
	Men	Women	Total	Men	Women	Total
M.S. in experimental surgery	1	.....	1	1	.....	1
M.S. in neurosurgery	2	.....	2	.....	.....	.....
M.S. in plastic surgery	1	.....	1	.....	.....	.....
M.S. in urology	2	1	3	1	.....	1
Ph.D.	77	8	85	95	11	106
Ph.D. in bacteriology .....	.....	.....	.....	1	.....	1
Ph.D. in medicine .....	.....	.....	.....	1	.....	1
Ph.D. in neurology	1	.....	1	.....	.....	.....
Ph.D. in neuropsychiatry .....	.....	.....	.....	1	.....	1
Ph.D. in pediatrics .....	.....	.....	.....	1	.....	1
Ph.D. in radiology .....	.....	.....	.....	2	.....	2
Ph.D. in surgery	2	.....	2	2	.....	2
Totals	2,021	1,020	3,041	2,083	1,050	3,133

TABLE VII B. CERTIFICATES CONFERRED, 1938-40

School or Division	Year 1938-39			Year 1939-40		
	Men	Women	Total	Men	Women	Total
Central School of Agriculture	71	32	103	45	28	73
Embalming	57	2	59	57	2	59
Extension	9	1	10	6	4	10
Library .....	.....	1	1	2	12	14
Northwest School of Agriculture.....	68	47	115	70	39	109
North Central School of Agriculture.....	21	.....	21	14	.....	14
Public Health	1	.....	1	6	.....	6
Public Health Nursing .....	.....	5	5	.....	20	20
Social Work	3	6	9	.....	29	29
University High School	41	36	77	42	39	81
West Central School of Agriculture.....	43	22	65	48	13	61
Totals	314	152	466	290	186	476

TABLE VIIIA. SUMMARY OF SOURCE OF ENROLMENT
FROM HIGH SCHOOLS, 1938-39

Entrants From	General College	S., L., and A.	Institute of Technology	Agriculture	Nursing	Dental Hygienists	Pharmacy	Education	Total
Minneapolis public schools.....	285	729	218	107	8	5	7	67	1,426
St. Paul public schools.....	115	222	78	34	3	2	5	13	472
Other Minnesota high schools	122	356	146	204	36	6	14	43	927
Minnesota private schools.....	31	81	27	29	2	1	.....	3	174
Totals from Minnesota..	553	1,388	469	374	49	14	26	126	2,999
Other states	31	139	62	15	13	2	2	8	272
Foreign countries .....	.....	6	2	.....	1	.....	.....	1	10
Grand totals	584	1,533	533	389	63	16	28	135	3,281
Entered by examination	1	33	6	3	1	.....	2	2	48

TABLE VIIIB. SUMMARY OF SOURCE OF ENROLMENT
FROM HIGH SCHOOLS, 1939-40

Entrants From	General College	S., L., and A.	Institute of Technology	Agriculture	Nursing	Dental Hygienists	Pharmacy	Education	Total
Minneapolis public schools.....	278	742	236	114	7	13	10	68	1,468
St. Paul public schools.....	102	207	74	35	6	5	5	11	445
Other Minnesota high schools	125	387	171	189	22	10	26	39	969
Minnesota private schools.....	29	98	34	32	1	.....	1	6	201
Totals from Minnesota..	534	1,434	515	370	36	28	42	124	3,083
Other states	33	140	65	24	12	2	4	10	290
Foreign countries .....	.....	5	6	.....	.....	.....	.....	.....	11
Grand totals	567	1,579	586	394	48	30	46	134	3,384
Entered by examination	2	53	5	6	.....	.....	1	4	71

TABLE IXA. SUMMARY OF STUDENTS ADMITTED WITH ADVANCED STANDING, 1938-39

Entrants From	Univ. Col.	S., L., and A.	Institute of Tech.	Agriculture	Law	Medicine	Medical Technologists	Nursing	Public Health Nursing	Dentistry	Dental Hygienists	Pharmacy	Education	Business Adm.	Totals
Colleges in Minnesota	1	252	99	102	.....	24	.....	3	1	9	5	9	77	41	623
Colleges in other states	1	199	70	57	1	4	2	3	6	5	4	3	49	15	419
Colleges in foreign countries .....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1	10
Schools of nursing															
Minnesota .....	.....	.....	.....	.....	.....	.....	.....	7	13	.....	.....	.....	4	.....	24
Other states .....	.....	.....	.....	.....	.....	.....	.....	14	29	.....	.....	.....	2	.....	45
Foreign countries .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Grand totals	2	451	176	159	1	28	2	28	49	14	10	12	133	57	1,122

TABLE IXB. SUMMARY OF STUDENTS ADMITTED WITH ADVANCED STANDING, 1939-40

Entrants From	Univ. Col.	S., L., and A.	Institute of Tech.	Agriculture	Law	Medicine	Medical Technologists	Nursing	Public Health Nursing	Dentistry	Dental Hygienists	Pharmacy	Education	Business Adm.	Totals
Colleges in Minnesota	3	283	126	88	19	17	1	11	3	7	5	10	90	40	703
Colleges in other states	2	189	89	44	14	5	.....	8	4	12	.....	4	34	19	424
Colleges in foreign countries .....	.....	4	8	2	.....	.....	.....	.....	.....	2	.....	.....	1	.....	17
Schools of nursing															
Minnesota .....	.....	1	.....	.....	.....	.....	.....	1	13	.....	.....	.....	5	.....	20
Other states .....	.....	1	.....	.....	.....	.....	.....	6	18	.....	.....	.....	4	.....	29
Foreign countries .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Grand totals	5	478	223	134	33	22	1	27	38	21	5	14	134	59	1,194

TABLE XA. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF UNIVERSITY STUDENTS OF COLLEGIATE GRADE
(OTHER THAN SUMMER SESSION), 1938-39

Entrants From	General College	University College	S., L., & A.	Institute of Technology	Agriculture	Law	Medicine	Medical Tech.	Nursing	Public Health Nursing	Dentistry	Dental Hygienists	Pharmacy	Education	Business Admin.	Graduate	Duplicates	Total
Counties in Minnesota																		
Hennepin	572	31	2,502	1,001	518	125	185	25	375	32	38	32	56	665	327	666	391	6,759
Ramsey	217	6	915	415	240	64	106	11	26	8	25	9	24	274	131	341	158	2,654
Other Minnesota counties	196	11	1,363	742	920	120	243	35	201	31	107	32	88	672	330	477	410	5,158
Totals	985	48	4,780	2,158	1,678	309	534	71	602	71	170	73	168	1,611	788	1,484	959	14,571
Other states	33	7	522	253	175	32	80	13	146	89	69	17	10	209	125	820	135	2,465
Foreign countries .....	.....	.....	19	27	5	1	3	1	5	.....	9	.....	.....	3	11	137	7	214
Grand totals	1,018	55	5,321	2,438	1,858	342	617	85	753	160	248	90	178	1,823	924	2,441	1,101	17,250

TABLE XB. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF UNIVERSITY STUDENTS OF COLLEGIATE GRADE
(OTHER THAN SUMMER SESSION), 1939-40

Entrants From	General College	University College	S., L., & A.	Institute of Technology	Agriculture	Law	Medicine	Medical Tech.	Nursing	Public Health Nursing	Dentistry	Dental Hygienists	Pharmacy	Education	Business Admin.	Graduate	Duplicates	Total
Counties in Minnesota																		
Hennepin	624	25	2,481	1,064	544	120	178	32	336	23	43	41	50	749	335	677	404	6,918
Ramsey	277	9	934	423	251	65	98	6	31	9	21	11	30	267	95	333	182	2,678
Other Minnesota counties	214	18	1,388	792	996	127	235	44	220	40	87	29	103	684	302	531	503	5,307
Totals	1,115	52	4,803	2,279	1,791	312	511	82	587	72	151	81	183	1,700	732	1,541	1,089	14,903
Other states	28	7	493	251	148	27	80	17	155	85	51	11	13	216	101	860	132	2,411
Foreign countries	2	.....	20	26	7	.....	1	1	2	1	10	.....	.....	3	5	142	8	212
Grand totals	1,145	59	5,316	2,556	1,946	339	592	100	744	158	212	92	196	1,919	838	2,543	1,229	17,526

Respectfully submitted,
RODNEY M. WEST, Registrar

REPORT OF THE COMPTROLLER

To the President of the University:

SIR: I have the honor to submit herewith a brief summary of the annual report of the comptroller of the University of Minnesota for the year ended June 30, 1940.

The University's complete financial report, *Report of the Comptroller*, is published separately and is available on request.

Sources of Income, July 1, 1939 to June 30, 1940

From the State

The legislative maintenance appropriation	\$ 3,540,000.00
<small>For the general support of the instructional, research, and administrative departments and maintenance of buildings and grounds, including the Department of Agriculture and the Agricultural Schools and Experiment Stations.</small>	
The 23/100 mill tax	248,176.38
<small>The standing direct property tax for the general support of the University</small>	
The state's share of the cost of indigent patients at the University of Minnesota Hospitals	200,000.00
The special projects administered and carried on by the University for the general benefit of the people of the state	308,701.92
<small>These special projects include Agricultural Extension, County Agents, Live Stock Sanitary Board, Dairy Manufacturing, and research in fields of Manganiferous Ores, Direct Process Beneficiation of Low-Grade Ores Soils, Medicine, Crop Breeding and Testing, Dairy Marketing, Maintenance of Psychopathic Hospital, Institute of Child Welfare, and Dairy Products Promotion.</small>	
The physical plant extensions	429,500.00
<small>This includes Field Crops Building \$350,000, Waseca land \$40,000, Special Repairs—Grand Rapids \$15,000, Special Repairs—Crookston \$24,500.</small>	

From the Federal Government

Instruction, research, and extension	763,580.04
<small>\$141,480.34 of this amount was for Instruction; \$146,810.38 was for Agricultural Research; \$479,415.81 was for Agricultural Extension.</small>	
Plant Extension—Public Works Administration Grants	1,012,829.89
<small>For the Coffman Memorial Union \$693,700.00; for Ada Comstock Hall \$152,808.00; for Health Service—Farm \$10,680.20; for Thatcher Hall \$50,784.27; for William J. Murphy Hall \$50,457.42; and for the Museum of Natural History \$54,400.00.</small>	

From the Permanent University Fund	294,616.94
<small>The principal of the fund, amounting to \$9,959,061.52 on June 30, 1940, was derived from lands 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.</small>	

From the Swamp Land Fund	75,932.41
<small>The principal of the fund was derived from land set aside by the State of Minnesota. The University participates in the income.</small>	

From Fees and Receipts	2,471,599.25
<small>This income is divided into: student tuition fees \$1,427,041.04; counties' share of indigent hospital patients \$242,664.54; other hospital receipts \$231,515.07; dental infirmary receipts \$51,744.72; other departmental receipts such as laboratory fees, sales of livestock and agricultural products \$516,490.00; miscellaneous receipts for plant extension \$2,143.88.</small>	

From Self-Supporting Service Enterprises and Revolving Funds	2,502,378.10
<small>The University operates dormitories and dining halls, cafeterias, a printing department, a laundry, garages, bookstores, a cold storage plant, and other enterprises and revolving funds, for the purpose of rendering service to the student body and of reducing the cost of general university operations. Of this amount \$145,945.70 was for plant extension.</small>	

From Trust Funds	909,672.10
<small>The trust funds include gifts and donations for scholarships, prizes, and income from endowments for teaching, research, and care of the sick. Of this amount \$6,983.89 was for plant extension.</small>	

From Intercollegiate Athletics	390,821.57
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Total Receipts	\$13,147,808.60
Proceeds from Sale of Certificates of Indebtedness	400,350.00
Decrease in Outstanding Obligations and Allotted Balances	326,964.69
Free Unencumbered Balance July 1, 1939	5,414.79
	\$13,880,538.08

Expenditures, July 1, 1939 to June 30, 1940

For Administration of the University	\$ 198,888.28
The expenses of the offices of the President, the Comptroller, the Registrar, the Dean of Student Affairs, the Dean of Women, and other general administrative offices.	
For the General University	637,767.15
The expenses of the library, general bulletins and publications, lectures and convocations, the storehouses, truck service, the inter-campus trolley, the employment bureau, and other services of an all-university character.	
For Instruction and Research	6,283,091.40
The expenses of college instruction and research, Agricultural Schools and Experiment Stations, the University of Minnesota Hospitals, Summer Session, Agricultural and General Extension. (General Fund, \$5,205,416.27; Federal Fund, \$767,706.53; Special State Appropriations, \$309,968.60.)	
For Physical Plant Operations	755,385.72
The expenses of maintaining and operating the buildings and other improvements on the land of the Main campus and the Farm campus.	
For Physical Plant Extension	2,534,864.55
This includes the following: Farm Campus Heating Plant Boiler, \$10,032.02; Waseca Purchase of Land, \$40,000; Crookston Tunnel, \$16,549.62; Coffman Memorial Union, \$1,436,978.89; Women's Dormitory, \$462,683.36; Health Service—Farm, \$36,339.67; Dormitory for Graduate Students, \$87,413.79; Tennis Courts—Main campus, \$21,288.73; Purchase of Real Estate, \$32,874.10; Journalism Building, \$182,409.80; Museum of Natural History, \$182,154.77; and Miscellaneous, \$26,139.80.	
For Self-Supporting Service Enterprises and Revolving Funds	1,987,587.15
The operating and capital expenditures for dormitories and dining halls, cafeterias, printing department, and other self-supporting enterprises, and revolving funds.	
For Trust Fund Purposes	901,623.84
Scholarships, fellowships, prizes, and trust fund expenditures for teaching and research, care of the sick, and other trust purposes.	
For Intercollegiate Athletics	265,656.57
The operating expenses of intercollegiate athletics and that part of the physical education expense paid from receipts of intercollegiate athletics.	
Expenditures	\$13,564,864.66
Certificates Redeemed	10,000.00
Reserve for Certificate Redemption	103,882.50
Reserve for Depreciation	90,000.00
Endowment Increase	110,505.54
Free Unencumbered Balance June 30, 1940	1,285.38
	<hr/>
	\$13,880,538.08

A Few Interesting Facts About the University

Students

	1935-36	1936-37	1937-38	1938-39	1939-40
Collegiate	18,308	20,024	20,461	22,402	21,812
Noncollegiate	4,272	5,285	6,255	6,249	7,303
Extension	9,811	11,073	12,677	11,519	11,884

Staff—1939-40

Academic staff*	1,811
Nonacademic staff*	1,332

Colleges

	Departments
Science, Literature, and the Arts	25
Institute of Technology	13
Department of Agriculture	30
Medical School	15
School of Dentistry	1
Law School	1
College of Pharmacy	1
College of Education	9
Graduate School	11
Business Administration	1
Library Instruction	1
University College	1
General College	1

Land—June 30, 1940

	Acres	Value
Main Campus—Minneapolis	137.90	\$4,042,867.62
Farm Campus—St. Paul	648.17	617,547.64
Crookston	915.89	142,650.97
Grand Rapids	454.60	34,095.00
Excelsior	229.89	41,271.22
Morris	823.82	61,137.53
Waseca	597.30	70,752.50
Duluth	272.74	41,344.00
Cloquet	3,302.09	61,031.80

Buildings—June 30, 1940

	Major		Minor†	
	Number	Value	Number	Value
Main Campus	51	\$19,908,879.99	26	\$ 169,550.43
Farm Campus	26	2,589,919.83	66	308,391.03
Branch Stations				
Crookston	9	480,734.74	42	158,563.47
Morris	10	638,998.06	21	143,945.53
Duluth	1	29,325.00	21	51,928.68
Grand Rapids	2	155,241.35	29	61,490.79
Itasca			22	24,499.02
Waseca			25	46,783.63
Excelsior			28	73,301.70
Cloquet			33	45,163.83
Totals	99	\$23,803,098.97	313	\$1,083,618.11

* Reduced to a full-time basis.

† Valuation \$25,000 and under.

Equipment—June 30, 1940

	Total	Livestock	Books and Museum Collections	Other
Main Campus	\$7,275,408.71	.....	\$3,843,939.14	\$3,431,469.57
Department of Agri- culture	1,315,185.01	\$90,752.16	325,011.31	899,421.54
Research	126,158.03	.....	.....	126,158.03
Service Enterprises	955,737.69	.....	.....	955,737.69
	<u>\$9,672,489.44</u>	<u>\$90,752.16</u>	<u>\$4,168,950.45</u>	<u>\$5,412,786.83</u>

Endowment—June 30, 1940

	Value
For general purposes	\$ 9,959,061.52
Unassigned funds—operating temporarily as an endowment	138,109.94
For student aid—scholarships, prizes, and loans	568,110.38
Educational purposes	4,098,840.57
Other purposes	2,069,808.75
Endowment—subject to annuity	461,290.19
	<u>\$17,295,221.35</u>
Student Loan Funds—	
Cash available	75,395.73
Notes receivable	225,904.66
	<u>\$17,596,521.74</u>

Respectfully submitted,

W. T. MIDDLEBROOK, *Comptroller*

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COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

To the President of the University:

SIR: I have the honor to submit my report as dean of the College of Science, Literature, and the Arts for the biennium 1938-40.

Of the two basic complementary functions of the college, the instruction of students and the advancement of learning, I shall here discuss only the former. Insofar as it is possible to give recognition to the scholarly and research activities of the faculty this is done elsewhere in your report—in the report of staff honors and of grants in aid of numerous individual and group research projects, and in the *Publications of the Faculties*.

Changes in organization.—Following the retirement, in 1939, of Professor Andrew A. Stomberg, the affairs of the Department of Scandinavian were placed in the hands of a committee of staff members of Scandinavian descent: Professors Martin B. Ruud (chairman), George M. Stephenson, and Theodore Blegen. Professor Ruud also serves as chairman of the department. This committee selected Dr. Alrik Gustafson as Professor Stomberg's successor and with him have reorganized the program of the department.

Specialization in the humanities.—A course in the humanities has been planned for selected students to enable them to acquire, through systematic co-ordination of history, philosophy, the fine arts, music, and the ancient and modern languages, a well-ordered knowledge of our cultural development. A committee representing the departments concerned supervises the work of students in this course. Enrollment is limited to those students who, in the judgment of the committee, are properly qualified, and a special effort is made to adapt the work to the individual interests of the student.

Specialization in Latin-American studies.—This sequence brings together courses on various aspects of Latin-American life and culture. It includes courses in anthropology, economics, fine arts, geography, history, and Spanish. The student will receive a general cultural training as well as a good preparation for business or for diplomatic dealings with Latin-American countries.

Placement service for seniors.—In June, 1939, a modest beginning was made toward the establishment of a placement service for graduating seniors. Those interested were asked to register their names and occupational interests and abilities in the dean's office. At the same time, employment officers of the larger business houses of the Twin Cities were notified that they could secure interviews with, and information about, graduating seniors through this office. Twenty-two such interviews have been arranged and numerous inquiries answered.

Counseling of superior students.—Because it was apparent from our study in 1937-38 that students of high ability are fully as much in need of personal counsel as those of low ability, and profit much more from it, we have during the past two years given special counseling attention to those entering freshmen who ranked in the highest tenth of their high school class. Each of these students has been invited to a personal interview during the summer preceding his registration. Assistant Dean Royal R. Shumway, with the assistance of Professor John G. Darley in 1938 and of Mr. Clayton Gerken in 1939, discussed with these students such matters as objectives, study habits, self-support, living conditions, and their programs for the year. Whenever desirable, the student was referred to other university agencies such as the Health Service, the Employment Bureau, and the Testing Bureau. In 1938, 109 such students were interviewed and in 1939, 135.

Problems facing the college.—The past decade in this country has been one of unusual unrest that affects almost every phase of educational policy particularly

as related to colleges of liberal arts. An amazing variety of conflicting ideas concerning fundamental aims, methods of instruction, subject matter, duration of curriculum, and admissions policies has been proposed and variously adopted at universities and colleges throughout the country. This turmoil doubtless reflects not only the general social unrest of the times but also the extraordinary increase in the range and depth of specialization of knowledge. Not so many years ago the curriculum of a liberal arts college was relatively simple and uniform for all students. It consisted in the reading of a few books and the study of a few logically organized departments of knowledge. Today these departments of knowledge have grown and subdivided again and again and each has become the subject matter of some specialized curriculum.

This process of specialization and segregation of knowledge into departments, natural and logical as it is from the point of view of the organization of knowledge, is but ill fitted, the critics say, to the instruction of youth in the art of living. Knowledge has been dehumanized, they argue. The teaching of it in these narrowly specialized departments all too commonly fails to arouse in students a vital interest or an adequate understanding of the relationship of this knowledge to their own intellectual and spiritual development. Under such instruction students are not likely to acquire a balanced perspective or a satisfying philosophy of life.

Not only has knowledge grown in range and depth, but also there has come about a clearer realization of the enormous variability among students in abilities and interests. With this has come a realization that educational procedures well adapted to the needs of some students are badly fitted to those of others.

As already noted, an amazing variety of conflicting proposals has been advanced to meet some or all of these difficulties. These proposals cover almost the complete range of possibility in their relation to educational policy. The vital question which faces a college of liberal arts today is: How, out of this welter of ideas, can a college reach sound conclusions with respect to its own educational procedures—conclusions freed from the bias of outworn traditions, of prejudice, of appeal to authority, of quackery? I emphasize that what is wanted is not another suggestion of a panacea but a method, clearly conceived and continuously functioning, for reaching sound conclusions about educational matters. The development of such a method I regard as the most immediate administrative problem of the college.

It is clear to me that the responsibility for making decisions about educational matters must be reposed in the faculty of the college. No individual or group can, potentially, be more aware of all aspects of the problem or more able to regard it objectively and realistically. But to make sound conclusions the faculty must be provided with the facilities for making a comprehensive, continuing, critical study of every aspect of the problem. The study must be comprehensive because the elements of the problem—whom to educate and how to go about it—are inextricably interwoven. Decisions concerning whom to admit will, for example, affect decisions about teaching methods and subject matter, and vice versa. The study must be a continuing and coherent one because as changes in procedures are made the results of these changes must be fed back into the study for a critical examination of outcomes.

With these ideas in mind, and to give informed and continuous leadership to this study in all its phases, Professor T. R. McConnell has been appointed associate dean of the college and will begin his work in 1940-41.

Respectfully submitted,

JOHN T. TATE, *Dean*

INSTITUTE OF TECHNOLOGY

To the President of the University:

SIR: I submit the following report for the Institute of Technology from July 1, 1938 to June 30, 1940:

With the preliminary stages of the organization of the Institute of Technology completed it has been possible to focus attention in other directions. The rapid increase in the student body of the institute and especially in some departments has brought problems which are discussed under "Enrolment."

Co-operation with industry, with agencies of the state, particularly the Minnesota Resources Commission, with various units of the federal government including the Civil Aeronautics Authority, the Bureau of Soils, the U. S. Army Engineer Corps, the Naval and Army ROTC, have presented new opportunities for service and stimulating contacts.

The establishment of new fellowships under the Hormel Foundation, the Merck and Company agreement on the Vitamin E work, the Eastman Kodak Company Fellowship for 1940-41, the co-operation with the Joslyn Company on high voltage discharge have all brought increased facilities and an enhanced impetus for research.

Placement service.—In 1931 an alumni service program was started to assist graduates from the College of Engineering and Architecture and the School of Chemistry in locating positions. Unemployed alumni and those seeking a change in position were aided in making contacts with prospective employers. The experience of this service is shown in Table I. After the Institute of Technology was established in the fall of 1935, provisions were made to extend the service to graduates from the School of Mines and Metallurgy.

TABLE I. ALUMNI PLACEMENT, 1931-39

Year	Number of Applications Received		Number of Alumni Placed		Per Cent of Alumni Placed	
	Unemployed	Desiring change	Unemployed	Desiring change	Unemployed	Desiring change
1931	22	—	14	—	64	—
1932	44	—	12	—	27	—
1933	186	—	73	—	40	—
1934	83	—	22	—	27	—
1935	122	—	61	—	50	—
1936	83	54	57	26	66	48
1937	66	60	34	10	52	16
1938	64	52	55	12	83	23
1939	99	114	62	31	63	27

Placement of the seniors for the years 1935 to 1939 inclusive is shown in Table II. Experience thus far this year suggests the best placement year since the establishment of the Placement Service. Already (June 15, 1940), 225 seniors have been placed as compared with 146 of last year at the same time. There is little doubt that by November 1 practically all of our graduates will be placed.

TABLE II. SENIOR PLACEMENTS, 1935-39

Year	Number in Class	Number Employed	Per Cent Employed as of November 1
1935	248	177	71
1936	205	168	82
1937	225	196	87
1938	258	192	74
1939	304	255	84

Each year many calls are received for experienced technical graduates. Last year 174 inquiries were received, 95 from the Twin Cities, 10 from other parts of Minnesota, and 69 from out of the state. These were for men from the various branches of engineering, chemistry and chemical engineering, architecture, mines, physics, and men from combinations involving production, construction, drafting, personnel work, teaching, research, maintenance, industrial engineering, surveying, and mining. Every effort is made to find the right man for the right job. Business and industrial firms have given excellent co-operation and have accepted the service with approval.

Members of the class of 1935 were the first to participate in the plan of using personnel sheets as an aid in making contacts with employers. There has been a steady growth in the number of students who order these sheets—from 55 in 1935 to 325 in the class of 1940.

The number of companies that have visited the Institute of Technology seeking personnel has grown from 20 in 1936 to 102 in 1940. All necessary arrangements for the interviews are made in co-operation with the company officials and department heads.

TABLE III. COMPARISON OF FRESHMAN AND TOTAL ENROLMENTS FOR THE BIENNIUM IN ENGINEERING, ARCHITECTURE, CHEMISTRY, AND MINES, FALL QUARTER

Group	1938-39	1939-40
<i>Freshman Enrolment</i>		
Engineering	408	448
Architecture and architectural engineering	24	21
Chemistry, chemical engineering, and physics	179	159
Mines and metallurgy	24	45
Total freshmen	635	673
<i>Total Enrolment</i>		
Engineering	1,424	1,580
Architecture and architectural engineering	111	123
Chemistry, chemical engineering, and physics	616	541
Mines and metallurgy	154	169
Total enrolment	2,305	2,413

Other services rendered by the Placement Service include:

1. Posting of announcements of examinations of the United States Civil Service, and comprehensive lists of fellowships, assistantships, and scholarships available in other universities.

2. Conducting a series of pre-employment lectures which are of special interest to the graduating seniors. These meetings have been quite successful and have given the students much

valuable information concerning the all-important problem "Preparation for seeking employment." Such topics as: (a) "Applying for a position," (b) "What constitutes an interview?," (c) "The letter of application," (d) "Opportunities for technical graduates in government service," (e) "How does industry select the young technical graduate?," (f) "The adjustment of the graduate to industry," have been included in this series of lectures. In most cases speakers have been selected from the industries and government offices.

3. Counseling with students concerning opportunities for employment.

Enrolment.—Tables III and IV give statistics of enrolment for the past two years. The growth has made it imperative to consider means of limiting enrolment beyond those already in force, such as acceptance of freshmen from only the upper 60 per cent of high school classes.

TABLE IV. COMPARISON OF ENROLMENT BY CURRICULA FOR THE BIENNIUM IN ENGINEERING, ARCHITECTURE, CHEMISTRY, AND MINES, FALL QUARTER

Course	1938-39	1939-40
Aeronautical engineering	343	455
Agricultural engineering	33	31
Architectural engineering*	1	0
Architecture	103	116
Chemical engineering (including business)	466	395
Chemistry (including business)	129	128
Civil engineering	219	249
Electrical engineering	350	350
Interior architecture	7	7
Mechanical engineering	419	434
Mines and metallurgy	154	169
Physics (industrial)	20	18
Prebusiness	40	30
Miscellaneous	21	31
Total	2,305	2,413

* This course was discontinued in 1931-32.

Three methods of limitation have been considered: (1) further increase of scholastic entrance requirements; (2) arbitrary numerical limitation of students in the most crowded departments; (3) increase of tuition in some departments with the dual object of limiting enrolment and providing additional funds to meet the needs. Each proposed method encounters difficulties. The widely differing enrolment and demand for graduates in the several departments of the institute make it impossible to adopt measures equally suitable for all. Differentiation between departments also meets serious obstacles. Nevertheless, some difference in tuition has been adopted as an emergency measure in Aeronautical Engineering, the largest and most rapidly growing department.

Direct numerical restriction of enrolment also involves the complication of transfer students from institutions within the state and of students who come from other states. It appears unjust to exclude any qualified students from Minnesota while admitting any from outside the state. At the same time it is inadvisable to exclude all students from other states, particularly our neighboring states which take Minnesota students in large numbers.

Scholastic requirements for graduation.—For the past four years the School of Chemistry has required a C average for progress toward graduation. The effects

on scholarship have been so satisfactory that with the beginning of the fall quarter of 1940 the C average requirement will be extended to all departments of the Institute of Technology.

Graduate work.—The number of graduate students continues to increase. There are 235 graduate students in 1940 taking major work in the Institute of Technology (Chemistry 145, Engineering 76, Mines and Metallurgy, 14). There are 110 candidates for the doctor of philosophy degree and 125 for the Master's degree.

Hormel Foundation.—In April, 1938, the George A. Hormel Company of Austin, Minnesota, established at the University a research foundation devoted to the investigation of fundamental problems relating to food technology and particularly to the meat packing industry. An annual appropriation of \$25,000 is made to the University in support of postdoctorate and doctorate fellowships. Each postdoctorate fellow works under the direction of some staff member who automatically becomes a member of the board of directors of the foundation. The chairman of the board is the dean of the Institute of Technology. A representative of the Hormel Company is a member of the board. Quarterly reports are rendered to the board and to the company.

At present postdoctorate fellowships are distributed among the various colleges as follows: College of Science, Literature, and the Arts, 2; Department of Agriculture, 2; Graduate School, 1; School of Chemistry, 1; Medical School, 1. The fellows who are candidates for the doctorate work under the direction of a member of the Graduate School faculty on a subject of general scientific interest, subject to the usual regulations for graduate work.

ENGINEERING EXPERIMENT STATION

Program and facilities.—The main purposes of the Engineering Experiment Station are to advance research and graduate study in the Institute of Technology; to conduct scientific and industrial investigations; and to co-operate with governmental bodies, technical societies, associations, industries, or public utilities in the solution of technical problems. Another purpose is to publish the results of the investigations and to give them sufficient distribution to make the work of value to the public. With these aims in view the Engineering Experiment Station provides laboratory and research facilities for the various departments of the Institute of Technology. The work of the station also extends into departmental laboratories, and the various projects may be under the direction of any of the departmental members.

The laboratories of the station, described in the last Biennial Report (page 215), have been consistently developed during the biennium and now provide space and equipment for several branches of the institute. Special equipment is available in such fields as aeronautics; internal combustion engines; structures; concrete; heating, ventilating, and air conditioning; hydraulics; highways; materials; and for industrial and manufacturing processes. The laboratories are used for undergraduate and graduate work, but in many lines they are particularly well adapted to large-scale research projects.

A considerable part of the construction and improvement work in the laboratories has been accomplished by the help of WPA funds. WPA workers have also served on several research projects. The number of WPA workers has varied but would average from 20 to 25 on construction and development work in the laboratories, and from 30 to 40 on specific research projects. There are over fifty active research projects now under way in the station including investigations concerning

vibration in airplanes, radio sounding balloons, measurement of gas pressure back of piston rings, contamination of crank case oils, protective treatment of silos, safe loads for eccentrically loaded columns, measurement of atmospheric dust, air filter performance, transfer of vapor through materials, sedimentation in rivers, stability of sand and earth dams, earth pressures, split ring joints for timbers, tensile and compressive strength of thin-wall structural members, carbon control in cupola cast iron, the development of a synthetic gray iron molding sand, the precision shunt for measuring high surge currents, preparation of air density tables, construction and assembling of equipment for a large wind tunnel, steel beam network tests, and many others.

Co-operative projects.—The station laboratories are equipped for several varieties of large scale research. Several co-operative projects now are under way in the Engineering Experiment Station and are given either partial or entire financial support of governmental agencies, technical societies, or manufacturers' associations. In several cases the sponsoring organization pays the full expense for the investigation plus an overhead charge to the station. Some of the organizations co-operating with the University during the past two years are the American Society of Civil Engineers, the American Society of Heating and Ventilating Engineers, the United States Department of Agriculture, the United States Engineering Department, the National Advisory Committee for Aeronautics, the National Mineral Wool Association, the National Association of Silo Manufacturers, the Joslyn Manufacturing and Supply Company, the Minnesota and Ontario Paper Company, and the Northwest Research Foundation.

In addition to providing financial support for research, co-operative projects provide channels for contact between faculty members and industry, and above all provide employment for many undergraduate and graduate students. All co-operative projects are carefully selected and have proved a distinct advantage to the station and to the co-operating agency.

Publications.—During the past two years five bulletins and sixteen technical papers have been issued by the station, and in addition to these publications the results have appeared in many society and technical publications. Bulletins and technical papers are distributed to universities, colleges, public libraries, and engineering experiment stations, and are available upon request.

MINES EXPERIMENT STATION

Iron ore.—In 1939, thirty-three million tons of ore, an average amount, were shipped from Minnesota; but the 1940 season gives every indication of being one of the largest in history. The amount of ore produced from underground mines and from concentration plants cannot be quickly expanded in times of abnormal demand, and, therefore, the strategic importance of the great Mesabi open-pit mines can hardly be overestimated. If necessary, Minnesota could produce fifty million tons of ore per year for the next ten years without any great expenditure for new equipment and without any great increase in the amount of labor required, but by that time a number of the steel companies would have completely exhausted their present ore reserves.

It is for this reason that so much interest is now being shown by many of the iron ore producing organizations in the development of new sources of iron ore. Engineers are searching all territory adjacent to the Great Lakes for new ore

reserves. The high-grade direct shipping ore is nearly all controlled by a few of the largest companies and, therefore, new ore reserves can only be developed by utilizing low-grade ores.

Minnesota has great quantities of low-grade iron ore, especially on the Mesabi, from which high-grade ore can be manufactured. The engineers of the mining companies and the Mines Experiment Station staff have developed processes by the use of which several types of this low-grade ore can be concentrated economically, and from three to nine million tons of concentrate are now being produced annually.

The Mines Experiment Station is constantly working with the engineers of the mining companies on the development of methods by which the more difficult types of low-grade ore may be utilized. These new developments not only increase the ore supply available to the steel industry but also increase employment at the mines, since it requires about three times as much labor to produce concentrate as it does to produce an equal amount of ore from the open-pit mines. The future of the mining districts of the state looks bright if methods can be developed for concentrating the enormous deposits of low-grade ore to replace the rapidly decreasing reserves of high-grade ore.

The Mines Experiment Station has the finest laboratory in the world for this type of work, and the mining industry is making great use of the facilities that we have to offer. Last year, about six hundred tons of ore samples were submitted by the mining companies, and, as a result, four new concentration plants were projected for construction this spring. Due to the reduction in ore prices, the construction of two of these plants was deferred, but the other two were constructed and are now producing concentrate.

Manganese ore.—Manganese ore is one of the most important of the strategic minerals that do not occur in sufficient quantities in this country for our own requirements. Most of our manganese requirements are secured from Russia, South America, Cuba, and Africa. On the Cuyuna Range great quantities of low-grade manganese ore exist, and shortly after the last great war, a process was developed in the Mines Experiment Station laboratory by means of which high-grade manganese ore can be produced from this low-grade material. Peace-time prices of imported manganese are so low that little or no profit can be made by the processing of the Cuyuna Range ore, but the price the government is paying for manganese has now increased to such an extent that the Cuyuna ore can be concentrated profitably. However, no private organization can afford to construct, simply as a war measure, the large concentrating plants that will be necessary for the utilization of this ore, and attempts are now being made to interest the United States Government in financing a plant and in contracting for the output. The Mines Experiment Station has been in contact with the government and with local mining companies, and is in a position to give technical direction to this undertaking should it materialize. Such a development would be of great importance to Minnesota, especially in the district adjacent to the Cuyuna Range.

Iron paving.—As a result of the experimental work done at the Mines Experiment Station, a half-mile stretch of iron paving was laid last fall by the Highway Department on Highway No. 53 near Eveleth. This is now being studied by the Highway Department to determine its characteristics. It is primarily a city paving material, but the observations being made on this highway will definitely determine its general usefulness and desirability.

NORTH CENTRAL EXPERIMENT STATION OF THE
UNITED STATES BUREAU OF MINES

Desulphurization of pig iron in the ladle.—The blast furnace normally produces pig iron sufficiently low in sulphur for steel making and foundry purposes but the use of auxiliary desulphurizers outside the blast furnace offers certain advantages which can be put to use when more efficient ladle desulphurizers are made available. The North Central Experiment Station, Bureau of Mines, continued its work on desulphurization in the ladle by studying the application of finely ground calcium carbide to a bath of molten pig iron. Tests were made at steel plants in the Pittsburgh district and at the St. Paul Foundry, St. Paul, Minnesota.

Fundamental study of sulphides in blast-furnace slag.—A study of the mode of occurrence of sulphides in blast-furnace slag of average composition was completed for the three most important sulphides in iron smelting.

Matte smelting of manganese.—Because of the renewed interest in the strategic metal manganese, the Bureau of Mines has conducted further research on pyrometallurgical methods for producing ferro-grade ore from manganiferous iron ores. A laboratory study has been made of matte smelting of manganese or the separation of the manganese from the iron and the gangue in an ore by the formation of a matte which consists principally of the sulphide of manganese.

SERVICE TO THE MINNESOTA TAX COMMISSION

The School of Mines and Metallurgy has continued to act as consultant to the Minnesota Tax Commission and in this capacity has made all of the ore estimates for the commission.

Services.—Since the last report to the Minnesota Tax Commission covers the period from September 1, 1936 to August 31, 1938, this report will cover a corresponding period.

During the biennium ending August 31, 1938, the School of Mines and Metallurgy has reported on 92 properties. An aggregate of 440,022,901 tons of Bessemer, non-Bessemer, and manganiferous iron ores is involved in these reports. Of these reports, 71 showed an increase of 66,225,934 tons of ore, while 18 showed a decrease of 3,354,532 tons. The net increase shown in all properties reported during the biennium was 62,871,402 tons. In addition to the tonnage of merchantable ore, the school reported 31,681,012 tons of nonmerchantable ore.

Field work.—During the biennium, two trips were taken to Duluth and the mining districts requiring the full time of two men for ten days. These trips covered the Vermilion Range from Tower to Ely, the Mesabi Range from Aurora to Calumet, and the Cuyuna Range from Crosby to Riverton.

Respectfully submitted,

SAMUEL C. LIND, *Dean*

DEPARTMENT OF AGRICULTURE

To the President of the University:

SIR: I submit the report of the Department of Agriculture for the biennium 1938-40 under the following headings: Experiment Station; Agricultural Extension; College of Agriculture, Forestry, and Home Economics; Schools of Agriculture; and Short Courses.

EXPERIMENT STATION

Research in agriculture, like research generally, presents an ever changing picture. The problems of agricultural production, in progressing from the pioneer stage to a more or less stabilized industry, represent a major transition in every particular. Natural and technical factors include the preservation or even the supplementing of soil fertility, protection against plant and animal pests, improvement of plant crops and livestock, engineering and technological improvements to conserve power and increase the variety of products made from agricultural crops, and improvement of the farm home, both in terms of physical facilities and the general social setting. In addition, the research program must take cognizance of, and be prepared to analyze and meet, changing economic and social conditions. These changes are registered, not only in terms of income and standards of living, but also in major technological adjustments such as those involved in equipment, farm organization, and types of crops to be grown.

Funds for research.—In recent times, and particularly during the last two decades, the industries of the United States have come to recognize that they can play a proper and adequate role in raising the standards of living of the American people only by a sustained and expanding program of research. In evidence of this recognition, it was recently estimated that industries of the United States employed about 17,000 research workers in 1927, whereas by 1938 the number had increased to about 42,250, an increase of about 150 per cent. Approximately 70 per cent of these workers are scientists or engineers; the balance are laboratory assistants and technicians. Applying a conventional unit cost per scientist of \$6,000 per year, the total bill for research conducted by American business in 1927 was at least \$72,000,000, whereas in 1938 it was at least \$180,000,000. There is every indication that industry regarded this increase as a good investment since there is no evidence of any decrease in such research, and more units are annually being added to the list of corporations supporting research organizations.

During the same general period the United States Department of Agriculture increased its research expenditures from \$15,500,000 in 1928 to \$26,300,000 in 1938, or about 75 per cent. This is only about one half of the rate of increase registered by industrial organizations, however. On the other hand, the state and miscellaneous funds applied to Minnesota Agricultural Experiment Station project allotments decreased by 11 per cent during the decade in question, and when the estimated overhead incidental to operation of the physical plant, plus allowances for special equipment are added to the project allotments, the total for 1938 is about the same as for 1928. There was some increase in Purnell and Bankhead-Jones federal grant funds during the decade, however, and when these are added to the totals for research, the increase in available allotments for research projects in this Agricultural Experiment Station was approximately 10 per cent. This is less than one seventh

of the increase in the United States Department of Agriculture's research budget, and, what is even more significant, it is only about one third of the average increase for the experiment stations of the United States, which was 31 per cent as reported by the Office of Experiment Stations, United States Department of Agriculture.

It has followed, therefore, that increasing demands for new and specialized research on the part of various branches of the agricultural industries of the state could not be fully met. Anticipated increases in federal grant funds were not made entirely available, since Congress appropriated only half of the increases in Bankhead-Jones funds during the past two years for which provision was made in the original act of 1935. Consequently, the Bankhead-Jones funds for 1939-40 were 80 per cent of the amount anticipated for that fiscal year. This, together with a reduction in available state funds, has necessitated retrenchments in certain projected programs of practical and scientific research. Another significant factor has been injected into the situation as well; namely, that certain recent federal laws providing for an expansion of research activities sharply defined in the law have required an expenditure of a stipulated equivalent of state funds in order to institute work within the state. This exerts a pressure in the direction of diverting funds to the specific uses defined in these laws, rather than having them left in a more fluid form whereby they may be allotted to new problems that are presented locally.

Regional research.—In recent reports particular emphasis has been laid upon the increasing prominence of regional programs of agricultural research. Developments have taken two forms: (1) the establishment of new regional laboratories which are financed from the federal treasury, and in which staffs of specialists engage in researches in restricted fields; (2) co-ordinated programs of research in specific fields, the work being conducted by the staffs of the several state experiment stations involved, within the range of their present facilities, and along the lines specified by understandings reached in periodic conferences.

The regional laboratories mentioned under (1) have taken two forms: (a) those supported by the funds made available under the Bankhead-Jones Act, and (b) the four regional laboratories for which provision was made under the so-called AAA Act of 1938. The relations of the state experiment stations to the AAA laboratory of the region in which they are located have been defined recently in a memorandum of understanding between the United States Department of Agriculture and the state agricultural experiment stations. Directors of these state stations in the region in which each laboratory is located, or their representatives, become ex officio members of a relations committee which will consider and advise with representatives of the United States Department of Agriculture on matters of policy and administrative questions of mutual interest and concern to these experiment stations and the regional laboratory. One such meeting was held at Peoria, Illinois, late in April, 1940, when certain broad general fields of research were approved for the northern regional laboratory.

Two other types of committees will be set up in the instance of each laboratory:

1. An agricultural and industrial relations committee, with representatives from agricultural organizations, industrial groups, labor organizations, consumers, colleges, and experiment stations. This will be a visiting committee which is expected to assess the programs and accomplishments of the laboratory in terms of the industrial and public interests and needs.

2. Technical committees, consisting of small, selected groups of experts in the various technical fields covered by active projects, to counsel and advice with the leaders of those projects. Thus there may be numerous such technical committees for each laboratory, the membership of which will be drawn from industry, colleges, and public or private research institutes.

New lines of research.—During the biennium, several new lines of research have been undertaken, and others have been revamped and expanded. The impact of the federal Soil Conservation Service activities has registered in a variety of directions, including added attention to grassland and pasture maintenance, horticultural and forest plantings, engineering research, soil survey, fertility and erosion, and other related fields. Wood technology investigations have been expanded through the use of federal grant funds. Land use planning research has been undertaken, parallel to the program detailed in the current report on agricultural extension. A grant from the Frascch Foundation is effectively expanding soils and biochemical researches on the sulphur metabolism of plants and animals in relation, particularly, to the situation found in the low-sulphur soil areas of northern Minnesota. Soil nutrient deficiencies of potatoes and certain vegetable crops are receiving detailed attention at the hands of specialists in several fields. Game and fur-bearing animals are being studied co-operatively with the State Department of Conservation and the United States Department of Agriculture. Bovine mastitis is receiving added attention through a special appropriation made by the 1939 Legislature. The detailed titles of these and other current projects and sub-projects are recorded in the annual report of the Agricultural Experiment Station.

AGRICULTURAL EXTENSION

During the biennium the agricultural extension service has carried forward the regular program of co-operative extension work with farm people, including the many projects that deal with the economic and social improvement of farm life. Co-operation has been continued with the federal and state agencies in charge of special farm programs and new work has been started in the field of land use planning. The program in its many and varied aspects has continued to attract increasing numbers of farm people to use its services. In like manner it has continued to receive the necessary financial support from local appropriating bodies, as well as from the state and federal governments. As the problems of farmers continue to increase, especially those relating to marketing and distribution, there has been an increasing emphasis on those phases of extension work dealing with these subjects. At the same time the demand for production and management information has not decreased. This is especially true concerning the new findings of research, particularly in the fields of plant and animal genetics and nutrition.

Status of work.—Agricultural extension work, as evidenced by reports of county extension workers, is now reaching a large portion of the rural population. Through the use of increasing numbers of volunteer local leaders, 15,984 in 1938-39, the number of extension contacts has greatly increased. The farm and home visits of which 44,104 were made during 1939-40, the 705,709 office calls, 208,796 telephone calls, 297,892 individual letters, and the 1,076,190 people attending extension meetings indicate in a statistical way the extent to which farm people are using the service in the management of the farm business and the improvement of the country home.

While the number of home agents in Minnesota is limited, the program was carried on in 46 counties through the training of local leaders who in turn carried the work to their local communities. Altogether 16,868 farm women were enrolled in these home projects, reaching 53 per cent of the homes in the counties where the work was conducted and resulting in improved practices in 42,402 homes. The number of farmers and rural homemakers reached through the press, radio, ex-

tension bulletins, and other sources is impossible to determine but these avenues of extension teaching are important.

The youth programs continue to grow in enrolment and thoroughness of work. While there has been a gradual increase in enrolment for several years, it is evident that the upper limits are about reached unless additional personnel is available, although this has been partially offset by training and enlisting the support of local volunteer leaders in increasing numbers. The ideal would be a full-time 4-H Club agent in each county, and the results of 4-H Club work would indicate this to be a sound social investment. During the last year of the biennium the enrolment reached a record total of 46,568 in 4-H Club work and approximately 1,500 in the recently organized older youth program. The supervision and direction of the program for older rural youth has been recently transferred to the 4-H Club office and placed in charge of the state club leader. This program, aimed especially at the problems of older rural youth, is now organized in 39 counties, a total of 43 groups, and can logically be expected to increase in importance, especially if the opportunities for rural youth to find work in the cities continue to diminish. An analysis of the needs of this group and how extension can best serve its members with a constructive program is one of the present major responsibilities of the 4-H Club office.

During the 1939 Minnesota State Fair the new \$510,000 4-H Club Building was dedicated. This permanent home for 4-H Club activities at the State Fair was made possible because of the importance attached to club work by the Fair management as one of the major educational activities of the State Fair. The building includes an immense exhibit and demonstration hall, large auditorium, fully equipped cafeteria, and dormitory quarters for all 4-H Club members attending the fair.

Extension and federal agencies.—Since extension is an educational service with the federal department co-operating, extension has been requested by the department to use its organization to inform farm people on the objectives and procedures of the new federal programs for agriculture. These obligations have greatly increased the work in the county agent's office, while at the same time other county extension work has also been increasing. On the average, more than 20 per cent of the agent's time is given over to the work of the AAA. The Soil Conservation Service and the Rural Electrification Administration have also drawn heavily on the time of the agent in the counties where these services are operating, and the land use planning work recently begun in co-operation with the Bureau of Agricultural Economics will, to an even greater extent, require his time. While relationships with the administrators of these programs have been on a satisfactory basis, it is only logical that problems would arise, and the details of relationships need to be worked out as experience has pointed the way. During the year a relationship statement between the extension service and the Soil Conservation Service was formulated by a committee representing the extension directors and the officials of the Soil Conservation Service for the guidance of the states. Similar understandings are needed with the other agencies. Director Paul E. Miller is now a member of a national committee to prepare a relationship statement with the Bureau of Agricultural Economics in connection with the land use planning work.

Land use planning.—During the past year land use planning work has been initiated through the extension service in co-operation with the Bureau of Agricultural Economics of the United States Department of Agriculture. This program is the outgrowth of the work of two committees on federal-state relations

appointed in November, 1936, by the Association of Land-Grant Colleges and Universities and the United States Department of Agriculture to consider relationships between the department and the states in connection with the new agencies of the department. Out of their report came the conference at Mt. Weather, Virginia, July 7-8, 1938, and a joint statement by the Association of Land-Grant Colleges and Universities and the United States Department of Agriculture on building agricultural land use programs, first, as a basis for correlating current action programs to achieve stability of farm income and resources and, second, to help determine and guide the longer time public effort toward these ends. The co-operative plan for building land use programs and policies to apply to varying local conditions includes land use planning committees in all counties in the several states, community committees, and over-all state committees. To insure farmer thinking and participation, farm people constitute the majority on all committees.

Funds have been made available to the extension service for developing the program on a co-operative basis with the Bureau of Agricultural Economics. To further the work two land use planning specialists were employed, one to work in the cutover counties of northeastern Minnesota and the other to work in the remainder of the state, with S. H. Rutford, land use specialist, in general charge of the program.

Comprehensive land use planning studies have been initiated in eleven Minnesota counties. Land classification maps have been prepared and recommendations made involving needed adjustments in land use in the respective counties. Work was carried forward on the basis of community and county committee judgment with basic information and technical assistance from the extension service, the Experiment Station, and the Bureau of Agricultural Economics. Land use planning is of a continuing nature so the work will go forward in the counties already organized and additional counties will be reached as rapidly as personnel will permit.

As a result of the work of the county and community land use planning committees, Koochiching and Carlton counties have taken advantage of the zoning enabling act passed by the legislature in 1939 and have enacted zoning ordinances to regulate future agricultural settlement. As the work goes forward it is expected that it will influence extension programs and, at least to some extent, research projects, as well as form a basis for correlating the various action programs of the United States Department of Agriculture. Public interest has been aroused in the counties where the work has been undertaken, and those associated with the program feel that it does hold considerable promise in developing a more comprehensive and sounder approach to land use problems in the state and in the respective counties.

Personnel and finances.—Although extension work is co-operatively financed by federal, state, county, and other local funds, the maintenance of the work in the counties ultimately depends upon county appropriations. During the biennium the annual increase in federal Bankhead-Jones funds reached its maximum and will remain stationary from now on unless changed by Congress. The 1939 session of the legislature granted an increase of \$3,525 in the annual appropriation for county extension work, and during the period county and local funds have been gradually increasing.

The state is now served by 90 county agricultural agents located in 87 counties, 26 county home demonstration agents in 26 counties, 8 full-time county 4-H Club agents located in 8 counties, 61 part-time county 4-H Club agents located in 58

counties, and 10 assistant county agricultural agents in training. Aiding and assisting the county staff are 56 subject-matter specialists and members of the supervisory staff.

The in-service training of the extension staff is a matter of increasing concern. As farm people become better informed on farm problems and economic questions, it is of the utmost importance that the county personnel keep fully abreast of the changes in subject matter as they are influenced by science and research and also intelligently informed on economic and social changes as they affect farm people.

To aid the staff in this objective, the annual state conference held during the second week of December, 1939, was built around the theme of professional improvement and a consideration of the backgrounds and philosophy of the several movements now affecting agriculture. Through the co-operation of the Division of Study and Program Planning of the Bureau of Agricultural Economics under the direction of Dr. Carl F. Taeusch, an able staff including E. G. Nourse of the Brookings Institution, Henry Simons and Charles W. Morris of the University of Chicago, William P. Maddox of the University of Pennsylvania, Asher Hobson of the University of Wisconsin, as well as resident staff members, discussed with the extension personnel present-day programs, trends, and policies. During the year, five district training schools for agents have been held to further the program of in-service training, at which times subject-matter specialists from the divisions of the University Department of Agriculture have presented to the agents the latest information and research in their fields. Every effort has been made to assist agents to take further college work, and more of them are each year recognizing the importance of additional training to better fit them for their work.

THE COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS

Registration.—In agriculture the increase has been steady and rather rapid in the last few years, with a present total of 765. In home economics the enrolment is also increasing steadily and has a present total of 841, the largest registration in these groups. Forestry has been overpopulated and the registration has decreased sharply. The present registration, 309, is probably adequate for the present demand for graduates.

REGISTRATIONS IN AGRICULTURE, FORESTRY, AND HOME ECONOMICS

	Registration		Registration		Biennial Increase or Decrease	
	1936-37	1937-38*	1938-39*	1939-40*	1938-40	
					Number	Per Cent
Agriculture	518	639	736	765	+126	+20
Forestry	507	503	420	309	-194	-39
Home Economics	589	668	780	841	+173	+26
Total	1,614	1,810	1,936	1,915	+105	+6

* Includes Summer Session

Relations with the junior colleges.—These have been cordial and satisfactory. Our policy has been to discourage the development of any extensive agricultural or forestry work in the junior colleges. These colleges cannot afford to build up farms, herds, and flocks that would impose extraordinary burdens on the sup-

porting communities. A sound state policy concentrates the technical agricultural and forestry teaching on the university level, at least at the present time, at University Farm. Under this policy we have adopted a liberal plan in transferring students from these junior colleges to the College of Agriculture, Forestry, and Home Economics. We have made it possible for two-year graduates of the junior colleges of the state to obtain all the technical and professional work after they come to this college, so that students with average ability and who follow suggested junior college work-plans have little difficulty in graduating after two additional years in this college.

Curricula.—The college has taken a position of leadership among the forestry schools by introducing a five-year professional curriculum instead of the previous four-year curriculum for training men for government forestry services. This five-year curriculum leads to a Bachelor's degree at the end of four years and a master of forestry degree at the end of five years. Minnesota graduates have made excellent records in national and state forestry services, and this additional training should give them even better background and training for the keener competition that already exists. We still retain some four-year courses in forestry for students interested in technological fields such as commercial lumbering and forest products work.

Joint curricula with other colleges of the University.—Too often separate administrative units are demanded in fields that overlap several colleges. When such overlapping occurs, economy for the taxpayer and for the University is often best effected by breaking down intercollege walls and combining the efforts of two or more colleges in constructing curricula for students in the overlapping fields. We have established seven such joint curricula. Two with the College of Education, namely, Agricultural Education and Home Economics Education, have been in operation for almost twenty years. We have a joint curriculum in agricultural business administration with the School of Business Administration. We have also a professional agricultural engineering curriculum with the College of Engineering. Here it is especially noticeable that such joint curricula avoid additional expense and unnecessary duplication. In many agricultural colleges the professional agricultural engineering has developed into a separate engineering college. In our joint curriculum it is only necessary for our college to furnish for this curriculum the technical agricultural engineering staff, which is also engaged in experiment station work, and the technical work in agriculture. The same is true of an agricultural engineering business administration course to which the School of Business Administration also contributes, so that this is a joint curriculum among three colleges. We have also a joint curriculum in agricultural journalism with the Department of Journalism of the College of Science, Literature, and the Arts. This curriculum, however, is in need of considerable readjustment. Finally, the Home Economics Division has a joint curriculum with the Institute of Child Welfare in home economics and nursery school education.

The intercampus car line connecting the University Farm with the Minneapolis campus makes the Farm campus a workable and integral part of the University as a whole, and without this line the joint curricula would be entirely impossible. Without it more than a million dollars worth of additional buildings would be necessary on the Farm campus, as well as a great enlargement of the staff at University Farm in order to teach the elementary chemistry, botany, zoology, and many other subjects that are now taught on the Minneapolis campus. The intercampus car line offers to every student in our college all of the educational facilities of all the colleges on the Minneapolis campus and, in a similar

way, to students on the Minneapolis campus all of the opportunities on the University Farm campus. We have a thousand or more registrations in classes on the University Farm campus by students from the Main campus, and every student in our college takes not less than 20 per cent and sometimes 50 per cent of his work on the Minneapolis campus. In short, the intercampus car line is an outstanding economy for the taxpayers of Minnesota.

Student problems.—This college has steadily increased its efforts to assist students in solving their many difficult personal problems and in making their student life outside of the classroom contribute as far as possible to personality development and professional education. The first requisites are cordial relations between the students and faculty and a co-operative spirit in working out these personal problems. The faculty as a whole has been unusually helpful and active in this program.

One of the most important developments has been the organization of freshman tests given to all entering freshmen, which enable us to predict with a fair degree of accuracy the chances each student has of graduating and of making an unusually good record. These tests are in no sense admission tests. They are useful, however, in many ways in solving the personal problems of individual students; e.g., in helping students select the most suitable curriculum, vocation, or profession; in adjusting load of work to the student's capacity; in selecting students for scholarships; in discussing student problems with their parents; and so on. They are particularly valuable in helping us to discover students of high talent and ability. We have found a considerable number of these potentially talented students who fall far below their ability in achievement and who have been heretofore overlooked because they maintain mediocre passing averages. We are attempting in every way possible to develop this high talent wherever it exists. More and more students are using these tests to guide them in their college work. At the other end of the scale, it is possible for us to convince hopelessly incompetent students early in their college course that they should drop out of college when the tests are verified by inability to do satisfactory college work. The result is a saving of time and money for students, parents, and taxpayers of the state.

Extracurricular activities are encouraged where these contribute to the student's personal and professional education. Basic to these student activities is the capacity for self-government so essential to successful democracy. For just twenty-five years the students in this college have maintained a self-government control of examinations and quizzes, with satisfactory results. This is known as the self-government honor system. The faculty is encouraging self-government with advice and counsel, and receives splendid co-operation from the students. The new coeducational Farm Union Board, for instance, is charged with large responsibilities for the development and improvement of the social program on this campus. More and more it is found that employment and success after graduation depend in large part on personality as well as professional and scholastic education, and students are realizing that personality development is primarily their own responsibility. They also are realizing that their activities outside of the classroom contribute most to the opportunities for such development. The faculty attempts to interest these students chiefly in worth-while activities, such as debates and extempore speaking contests, improvement of English, broader education, group management, and leadership. The college requires every student to take during his or her college course some of the elements of social science courses to the end that they shall understand more clearly the important social, economic,

and political problems that confront our state and nation. By these means we hope to develop the mature and educated leadership in agriculture, forestry, and home economics that our future democracy will increasingly need.

The college at present is engaged in making an occupational survey of all its graduates. We hope to have classified lists of all graduates according to their major and minor fields of specialization and training while in college and according also to their occupational experience after graduation. The continued success of its graduates is a matter of real concern to every college; we can co-operate in this only if we have a knowledge of their occupational experiences. It is also a matter of real concern that these graduates in national crises and emergencies shall be able to contribute their greatest service in fields, vocations, and professions for which they have been especially trained and in which they have had occupational experience.

As a public institution, we need to be able to provide information as to the availability of specially trained personnel in many fields and professions. The most important products of a college are the graduates and the special training which they possess and may use in the public welfare. It is quite obvious that the first and basic requirements are a classified knowledge of the training and experience of these graduates and means of locating and identifying each group and each graduate.

Our graduates in agriculture, forestry, and home economics are all trained for some practice in the large field of conservation. Preparedness for any national crisis, either in times of war or peace, will need many men and women trained in this field. We need to be prepared so that we can assist each of these to be of greatest service in the special field of his training and experience. We need to be prepared to furnish to the public service departments specific information as to personnel and training received by all of those who have been trained in this college. We need to be prepared to do everything possible to avoid the vocational maladjustment and confusion of our past national programs.

SCHOOLS OF AGRICULTURE

The school at University Farm has passed the fiftieth year of its existence. When it first opened its doors Minnesota was a young state. It had vast areas of virgin forests. The process of agricultural settlement was under way. Wheat was king among agricultural crops, but even then it was foreseen that it would have to take a lesser place in the agricultural production of the state. The search for better paying crops had definitely begun and as this search widened, the need for technical knowledge pertaining to plant and animal production became more apparent. It was the consciousness of this need that spurred leading farmers to petition for a school of agriculture. They were also conscious of other needs. In the one-crop stage of wheat they faced the fact that the productive power of Minnesota's land outran local needs, and that the major demand for her products must come from outside her borders. Therefore, early in the life of the school the problem of ways and means to find markets received emphasis. Evidence of this was the attention given by members of the staff to co-operation in preparing products for the market and in securing markets.

There was a still more basic need realized by these early farm leaders, the need for a rural solidarity which could be realized only by making rural life socially effective and attractive. To this end the school at University Farm pioneered in organizing farmers' clubs which fostered improved production and

marketing, better educational facilities, and better all-round community organization.

Throughout their existence, the schools at Crookston, Morris, and Grand Rapids, along with the school at University Farm (the oldest in the group), have placed emphasis on these three objectives—production, marketing, rural social improvement—and today it would be folly to drop any one of them. However, conditions affecting production, marketing, and rural living change, and those in charge of the schools must be alert in adjusting instructional programs to changing conditions. Especially is this true at present, when the power to produce agricultural products so greatly exceeds demand at profitable prices; when the normal flow of country youth to urban centers has been checked at least temporarily; and when modes of thinking and methods of living in the cities are being spread throughout the countryside by means of modern transportation and communication. The extent to which the United States is being urbanized mentally and spiritually cannot be measured in terms of urban and suburban growth alone.

The schools doubtless are fortunate in that their function is to train young men and women for farming and rural homemaking. They do not, as is the case with the college, offer training for a wide variety of professions and types of service related in one way or another to agriculture, forestry, and home economics. If schools of this type were to attempt the broad training afforded in a college, they might suffer in effectiveness and in the high esteem in which they are held by the agricultural communities which they serve and by those interested in agriculture. With singleness of purpose, they integrate the life of the student body in each school and thereby build extracurricular programs which go far in preparing students for usefulness in the communities in which they farm after they have completed their school training. The supervised summer projects in which the students engage also contribute materially in this direction.

The regular school year extends from about the first of October to near the first of April. The reason for this short year is to permit the young people to enter school after the farm harvesting and to leave at the onset of heavy spring work. In view particularly of uncertain farm prices the problem of hired farm labor has become increasingly difficult in recent years, and farmers have felt it necessary to have their sons and daughters at home at times when help is urgently needed. On farms where corn is a major crop, young men have frequently remained at home until the winter term of school.

Although there is a logical reason for the short school year, it may not be out of place to survey the possibility of keeping the schools open for nine or ten months each year. At present a large portion of the school plants is not in use from April to October except for accommodating a few short courses. It is difficult to locate competent teachers for a period of six months. Since there are more country youth backed up on farms than are needed, it might be easily possible to have at least a fairly large enrolment during the summer months coming from farms where there is a surplus of man power and perhaps from town and village families interested in farming. If such an arrangement should be logical, it would result in better utilization of school plants and provide a better basis on which to employ the teaching staffs.

If a spring or summer term were offered, many of those desiring to enter the schools would have to have financial aid, and it is doubtful if the school plants could provide it, since as much as can be given is already given.

Were a spring or summer school term to be offered, the work might very well be addressed, in part at least, to situations surrounding the surplus rural youth problem. In this case it might be advisable to modify the curriculum of the regular

school year. It might be well to give training along lines that would help farm young people to locate employment off the farm, and thus assist farm families in the solution of their family problems. It would be most unfortunate, however, if any school were to follow this tangent to the neglect of the long-standing objectives of the schools.

During the biennium the schools have maintained normal enrolments. At the Northwest School at Crookston there has been a marked increase which has brought much overcrowding in the dormitories. A new dormitory for girls is greatly needed. All of the schools would have had large increases in enrolments had it not been for lack of funds on the part of many who desired to enter.

At the School of Agriculture at University Farm there has been a constant increase in the number of high school graduates who enroll; about 50 per cent of the students who enroll there have had some high school training, and approximately one third of the entire student body has completed a regular four-year high school course. These high school graduates for one reason or another do not intend to go through a regular four-year college course, leading to a degree, but do wish to supplement the high school training by two years of six months each at University Farm before taking up the business of agriculture or homemaking.

The School of Agriculture at University Farm from the beginning has served a mature group of farm young people; it maintains the entrance age requirement at 17; at Morris, Crookston, and Grand Rapids there is no such age restriction. As a result, the average age of the student group at University Farm is older, averaging between 19 and 20. The faculty has adapted curriculum material to meet the needs and abilities of this group, as well as of those students who have not had high school training. In many divisions the material offered is similar to that in the college courses covering the same subjects. It is interesting to find that the eighth grade graduates of maturity have fully held their own, scholastically and in leadership, with those who have had high school training.

SHORT COURSES

Throughout the years certain short courses have become well established while others have been given only from time to time, as requested. Practically all of the short courses are in the nature of continuing education for those who have already had training and experience in the particular field covered, thus constituting a program of adult education. The trend is toward greater specialization of interest. For instance, we are now working on arrangements for a short course for the operators of small sawmills, giving instruction relating to more efficient sawing, better methods of marketing, types and grades of lumber, methods of piling lumber, and standardization of product. There are requests from many other groups having rural interest, such as the feed dealers of Minnesota, for a short course in nutrition; from others for courses in beekeeping, turkey grading, soil and erosion problems, farm management, machine operation, rural electrification, dramatics, as well as many other social and economic problems of rural life. (Data on short course registrations will be found in Table III of the registrar's report.)

Respectfully submitted,

W. C. COFFEY, *Dean and Director*

LAW SCHOOL

To the President of the University:

SIR: I submit the following report on the Law School for the biennium 1938-40. Following the precedent of ten years ago, this report will comment upon developments in legal education of the last decade as well as those of the biennium.

Lack of effective leadership in democracies.—History records few periods marked by such world-shaking developments as have occurred in the last decade. Dictatorships have displaced governments of the people. Government by law has been discarded in favor of government by men. International law and treaties have been flouted. The liberties and values which free men had come to take for granted have been in many countries destroyed and are everywhere in danger. Faced by perils, the democracies have been confused in thought, divided in council, and shrinking from realities. Unable to unite for their common defense, one by one they have been overwhelmed by the dictatorships.

Many causes, immediate and remote, may be found for this world revolution and holocaust. But there is one ultimate cause, and that is lack of sound and effective leadership. Democratic governments have been destroyed primarily because they failed to remedy the ills of their peoples. There were a few great leaders who knew how to diagnose the world's illness and to prescribe remedies. Had the counsels of men like Wilson, Briand, and Stresemann been heeded, the world might have been saved from the valley of death. But their efforts were thwarted by selfish men more concerned with holding office than with the welfare of peoples. They knew it was easier to arouse fear of new experiments than to inculcate a vision of a better world. Some were doubtless sincere, but lacking in vision. The world suffers from ignorant stupidity as well as from malevolent design. Where there is no vision the people perish.

If the democratic form of government is to compete successfully with the dictatorship, means must be found for getting public-spirited capable men in government. The people must be educated to select such men and to leave the choice of policies to them. Representative government must be restored. Such a program requires leaders not only in the chief offices, but also in every precinct. We can learn something about organization from the dictators, but we should plan not to order and to compel, but to educate and to lead.

The lawyer's function in society.—In the early days of our country, lawyers were pre-eminent in furnishing counsel and guidance to the people, not only in private affairs, but also on public questions. They were assumed to be the guardians of whatever learning there was in those times. They were learned in the history and principles of government, ethics, and philosophy. With the advent of the industrial era and the corporation, the ablest lawyers turned their attention to business and neglected government. They became business men rather than professional men. They have left the task of government to their less able brothers who have sought in politics a chance of a livelihood. There are many lawyers still in political life, but, with a few notable exceptions, the leading intellects of the bar are not in their ranks.

We need to revive the old conception of the lawyer's function in society.

Law, in its broadest conception, is the means designed to enable men to live together in peace, man with man, group with group, nation with nation. Thus conceived, it envelops humanity. It includes government in all its subdivisions and

branches; the principles upon which human institutions are based; the rules designed for the peaceful settlement of disputes; the agencies that make the rules, legislative, administrative, or judicial; and the agencies that administer them. All these institutions, national or international, are within the compass of law and are the proper concern of the lawyer.

Justice is the ideal which the law is designed to achieve, but which it never quite attains. Our conception of what is just is constantly changing. It is radically different today from what it was one hundred, or even fifty years ago. Criminal law and labor law will readily come to mind. The causes of change may be the enlightenment through newly acquired knowledge, such as psychologists have given us concerning human behavior, or they may be changed conditions in the world about us, such as the rise of the industrial era.

Law and the life of a people.—Certain it is that law is not preordained. There has never been, there will never be, a set of institutions and rules that will fit all people at all times, and that will satisfy their sense of justice under all conditions. Governments, institutions, and laws—the law as we conceive it—are the expression of the life of a people; they do not mold that life. Laws that attempt to coffin and confine that life will be burst asunder. The human spirit, the human will, are stronger than any law. Laws may cramp and restrain that spirit for a time, but that time will have an end. History teaches us that there is one and only one law of human relations that is constant, and that is the law of change. The law that will suit a given people at a given time is determined by the ideas, temperament, habits, and conditions of that people at that time. Thus the law must vary with the people concerned, and, for a given people, from time to time.

The function of the lawyer is properly as broad as the law, thus conceived, and nothing can enhance the dignity and prestige of the profession more than this conception of it. If lawyers think of themselves, not as mere journeymen working according to rules given them by others, but as social engineers designing the machinery of government and formulating the rules for its operation, examining new ideas, incorporating good ones into the design, watching for stresses and strains and providing remedies—all this with the object of attaining a more perfect justice and enabling people to live in peace and harmony—the thought will give them a new outlook and a new spirit, which will influence for good all their activities.

Human relations and legal training.—The implications of this idea are manifold. It implies a change in the training of students of law. Our law schools have been pointing students for a life as business advisers rather than a life as professional statesmen. The subject matter of law is human relations, and the student of human relations has a vast field to explore. He needs to study philosophy, ethics, psychology, economics, sociology, and government in their various phases. They are the stuff out of which law is made. The history of the experiences of peoples of the past and the ways of life of peoples of the present should be to him what laboratory experiments are to the natural scientist. Study of these fields will be essential to the well-trained lawyer—not to the exclusion of the study of the law as it has been, but in addition to it. It will be particularly important to teach the truth stated by Jack London, that "The aim of the University is simply to prepare one for a whole future life of study."

The idea implies the reunion of law and politics such as existed in our early history. It means a renaissance of the professional spirit of the bar, and abandonment of the commercial spirit which developed through its association with business. The lawyer as an adviser of business may not be so astute to find what can be done within the letter of the law and may pay more regard to the spirit of it. He

will be more likely to advise that all things that are lawful are not expedient. He will realize "that the law falls far short of its proper place as a progressive influence in the life of our country if it fails to keep abreast of the changing conditions and problems which are presented by the rapid development of that life." He will work for a "living law" alert to recognize new demands and not unwilling to devise and adopt new rules and standards, where such action is called for, in order fully to meet those demands and furnish a body of law adequate to the times. In that way our law will become the living vital influence in our national life which it should be.

Because lawyers have great influence upon government and the public welfare, only men of ability and vision should be admitted to the bar. The procedures for admission should be designed carefully to select persons well qualified, rather than to exclude the obviously unfit. Admission to the profession should be regarded not as an opportunity for making a living, but as a call to public service.

Bar admission standards.—Prior to 1920, the requirements for admission to the bar were universally low. In many states no general education was prescribed, and the most required in any state was a high school course. The period of law study was two or three years, and no distinction was made between full-time and part-time schools.

In 1921, the American Bar Association adopted certain standards as a basis for its approval of law schools, and recommended to the states that they require these standards for admission to their bars. The chief requirements were: two years of college study as a condition to admission to law school; three years of study in a full-time law school, or four years in a part-time school; an adequate law library; and a certain number of full-time teachers in the law schools.

By 1930 these requirements had been substantially adopted by fourteen states. In the last decade, they have become effective in all but seven states. Their chief features were adopted in Minnesota in 1931.

Two states have gone farther than the requirements of the American Bar Association. Kansas requires a total of seven years of college and law study; and Wisconsin has recently increased its requirements to a total of six years.

These steps are a marked advance from the previous conditions, but they are far from sufficient. The standards are formal, and compliance with them is no guarantee of a good law school. Little attention has been paid to the content or quality of the college work, or to the capacity and attainments of the students admitted and graduated by the law schools. However, the Council on Legal Education of the American Bar Association is now attempting to remedy these defects.

Law schools and registration.—The number of law schools in the United States reached a peak of 195 in 1935, and has since declined to 180. Of these, 102 are approved by the American Bar Association. In the decade the number of law schools in Minnesota has decreased from 5 to 3. Of these, this Law School is approved by the American Bar Association and another is provisionally approved.

With respect to the number of students, ten years ago the national registration was 44,009, the Minnesota registration 962, and the registration in this school 277. Last year the national registration was 34,539, the Minnesota registration 732, and the registration in this school, 338. The increase in this school is mostly due to the fact that the four-year course was developed in this period, causing students to remain in the school for one year more than formerly. The peak law school registration in the United States was 48,492 in 1928-29, and in Minnesota 1,350 in 1923-24. Since 1931 the registration in this state has been fairly stable, although the national registration has steadily declined.

Law school entrance requirements.—Generally the entrance requirements of the part-time law schools coincide with the requirements for admission to the bar in their jurisdiction. On the other hand, university law schools have generally been in advance of bar admission requirements. In the decade, the number of law schools requiring a degree for admission has increased from 6 to 10; and the number requiring three years of college work from 13 to 35. All but one of these schools have a three-year law course; the one has a four-year course. Six schools, including our own, require two years for admission, and have a four-year law course. Thus the total period of college and law school study required for the professional degree is seven years in 11 law schools and six years in 40 others, including this school.

Integration of college and law school work.—The outstanding advance of the Law School in the decade has been the development of an integrated six-year course for the professional law degree. This course begins with the student's entrance to college. The faculty would like to begin with high school, but it is not practicable to prescribe the high school course. The faculty does, however, strongly recommend that high school students who intend to study law should take a course consisting of 4 units of English literature and composition, 4 of mathematics, 4 of Latin, or some other foreign language if Latin is not available, 2 of history, and 2 of natural science. Such a course calls for that vigorous mental application which should characterize the future lawyer.

This Law School requires two years of college work for admission. Many schools require three or four years. There has been increasing insistence on the importance of college work in the training of lawyers, but little attention has been paid to the questions: how college work contributes to that training and what college work is important for the purpose. Law schools have had a blind faith that college work is somehow good, and that the content of it makes little difference. The college training has sometimes been regarded as a process of sharpening the mind for later work, and sometimes as a testing process to discover competent law students. Our faculty is of the opinion that neither of these reasons is sound. It believes that the justification for college work is that there are certain fields of knowledge with which lawyers should be acquainted. All studies are valuable, but some are more valuable than others, and, as time is limited, choices must be made. For these reasons this Law School prescribes the greater part of the college work prerequisite to registration for the professional law degree. The courses required are English literature and composition, logic, ethics and problems of philosophy, principles of economics, English constitutional history, general psychology, government, and accounting.

The four-year Law School course.—This faculty chose to increase the law school period of study rather than the college period. Impressed by the facts that there is little transference to the professional course of attitudes acquired in college, that the law school training of the past has been too narrow, and that the law schools should give their students a broader professional outlook, the faculty added a year to the Law School period of study and devote that year to this purpose. It is important that law students study advanced social science, but this study is more effective after the students have acquired a knowledge of existing institutions and laws than before. Furthermore, such studies require greater maturity of mind than the law itself. The faculty has kept in mind that lawyers predominate in government, and has provided some training for this purpose. The first two years of the Law School curriculum are devoted to the study of basic law, and the last two years partly to a continuation of basic law, and partly to broadly pro-

fessional studies. The new courses which have been added to the Law School curriculum include Jurisprudence, Judicial Administration, Legislation, Labor Law, Trade Regulation, Administrative Law, Philosophy of Modern Social Reform, Application of Psychology to Law, and Modern Social Legislation. In addition to the courses provided in the Law School itself, the student is given opportunity to pursue social science courses in other departments of the University.

This program was inaugurated at the beginning of the decade, and has steadily grown in favor with students and faculty. A three-year law course is still available to students who have a degree when they enter the Law School, but for all others the course is four years. Since this plan was inaugurated in this school, six other law schools have adopted similar programs, and several more, including Harvard and Columbia, are considering steps in the same direction.

Financial aids for students.—There has been a gratifying increase in the amount of money available for loans to law students. Ten years ago the only fund available was the Law Alumni Loan Fund, which then amounted to \$2,200. Since that time the alumni and other friends of the Law School have increased this fund to approximately \$25,000. The late Frank B. Kellogg bequeathed \$25,000 for loans to law students. The Law Faculty Scholarship Fund has received additional gifts, and now amounts to over \$5,000. From these funds loans up to \$200 annually are made to law students after they have completed their first year with a satisfactory record. The greatest present need is for additional scholarships available to first year students. Many law schools are offering such scholarships, and they are becoming necessary to secure outstanding students. The Law Alumni Association has the matter under consideration, and has expressed an intention to provide scholarships for this purpose. The faculty wishes to express its thanks to the various donors who have contributed to these several funds.

The law library.—In the decade, 59,000, and in the biennium, 12,796 volumes were added to the law library, bringing the total to 113,596. In respect to the number of volumes, the law library ranks sixth among the law school libraries of the United States. It is the policy to buy largely books of permanent value, and few of only temporary value. Thus the worth of the collection is constantly increasing more than the cost of the books added. The collection ranks particularly high in the law of the United States and the British Commonwealth.

Some additions were made to the foreign law collection, but this continues to be the weakest feature of the library. Funds have been insufficient to build an adequate collection in this field. There is increasing interest in comparative studies of legal developments in different countries, and additional foreign books are needed for this purpose.

Over five thousand of the volumes added were gifts or books received in exchange for gifts. Some of these gifts were received from various government agencies, but a large number came from alumni and other lawyers. The school is grateful to these donors, and hopes that others will keep in mind the fact that the law library wants law books of all kinds, such, for example, as reports of public agencies, session laws, legal periodicals, and textbooks. When gifts duplicate books already on hand, they are not counted as additions, but they are used for exchange with other libraries. Approximately seven hundred volumes were added by such exchanges in the biennium.

Bar examinations.—Two tables giving data on the state bar examinations follow.

Table I is primarily designed to show what proportion of the candidates is ultimately successful. The years 1936 and 1937 were chosen for this study in order

TABLE I. RECORD OF CANDIDATES TAKING MINNESOTA BAR EXAMINATIONS FOR THE FIRST TIME IN 1936 AND 1937, IN ALL EXAMINATIONS TAKEN BY THEM TO JUNE 30, 1940

	Candidates from University of Minnesota		Candidates from Other Law Schools		Totals	
First examination.....	115	Passed— 86 (75%) Failed — 29 (25%)	100	Passed— 37 (37%) Failed — 63 (63%)	215	Passed—123 (57%) Failed — 92 (43%)
Did not reappear.....	8		19		27	
Second examination.....	21	Passed— 11 (52%) Failed — 10 (48%)	44	Passed— 13 (30%) Failed — 31 (70%)	65	Passed— 24 (37%) Failed — 41 (63%)
Did not reappear.....	2		12		14	
Third examination.....	8	Passed— 3 (38%) Failed — 5 (62%)	19	Passed— 5 (26%) Failed — 14 (74%)	27	Passed— 8 (30%) Failed — 19 (70%)
Did not reappear.....	4		5		9	
Fourth examination.....	1	Passed— 0 Failed — 1 (100%)	9	Passed— 2 (22%) Failed — 7 (78%)	10	Passed— 2 (20%) Failed — 8 (80%)
Did not reappear.....	1		6		7	
Fifth examination.....			1	Passed— 0 Failed — 1 (100%)	1	Passed—0 Failed—1 (100%)
Total passed.....	100 (87%)		57 (57%)		157 (73%)	
Not passed to June 30, 1940.....	15 (13%)		43 (43%)		58 (27%)	

TABLE II. RECORD OF ALL CANDIDATES TAKING MINNESOTA BAR EXAMINATIONS IN 1938 AND 1939

	Candidates from University of Minnesota		Candidates from Other Law Schools		Totals	
First examination.....	129	Passed—104 (81%)	136	Passed—54 (40%)	265	Passed—158 (60%)
Second examination.....	25	Passed— 17 (68%)	59	Passed—22 (37%)	84	Passed— 39 (46%)
Third examination.....	10	Passed— 3 (30%)	18	Passed— 3 (17%)	28	Passed— 6 (21%)
Fourth examination.....			10	Passed— 2 (20%)	10	Passed— 2 (20%)
Fifth examination.....			2	Passed— 1 (50%)	2	Passed— 1 (50%)
Sixth examination.....			1	Passed— 0 (00%)	1	Passed— 0 (00%)
All examinations.....		Passed—124		Passed—82		Passed—206

to allow time for repeated attempts. The study was restricted to candidates who first appeared in those years, and the records of unsuccessful candidates were examined down to June, 1940, after which they are not likely to appear for further examinations. The table shows that 87 per cent of the candidates from this school, 57 per cent from other schools, and 73 per cent of all candidates passed the examinations. The proportion not passed is increasing. It was, in the period 1926-32, 19 per cent; 1933-35, 25 per cent; and 1936-37, 27 per cent.

Table II shows the record of all candidates in 1938 and 1939, regardless of when they first appeared. It shows that 81 per cent of the candidates from this school, and 40 per cent of other candidates, were successful in their first attempt. The total number passed was 206, of whom 124 (60 per cent) were graduates of this school, 53 (26 per cent) graduates of the three other Minnesota law schools, and 29 (14 per cent) graduates of law schools in other states. The graduates of this school have an excellent record of success in the bar examinations of other states.

In the years 1936-39, the numbers admitted to the bar by examination were, in Minnesota, 80, 75, 101, 105, and in the United States, 7,651, 7,989, 8,105, 8,102. More are being admitted in both state and nation than can find a place in practice. The profession is overcrowded, and this overcrowding is harmful to the people as well as to the bar. The struggle for a living causes unethical practices. It creates a temptation to stir up and to prolong litigation. Thus, time of the courts is wasted, public costs are increased, and citizens are badly advised and served. There are not too many capable, well-trained lawyers, but there are too many incapable, poorly trained ones. The latter cause most of the trouble. Furthermore, they enter public life, and furnish poor leadership. All interests would be better served if the standards of attainment for admission to the bar were substantially raised. No one has a right to practice law; it is a privilege, and it should be restricted to those who are thoroughly worthy of it. To that end, as stated in my last report, this Law School has raised the standard of scholarship required for its professional degree.

Respectfully submitted,
EVERETT FRASER, *Dean*

MEDICAL SCHOOL

To the President of the University:

SIR: I have the honor to transmit herewith the report of the Medical School for the period 1938-40.

Major purposes.—The primary reason that the state of Minnesota supports a medical school is to train physicians who are qualified to provide medical care for the people of this commonwealth. The accomplishment of this involves undergraduate medical education, the training of specialists, and postgraduate medical instruction for physicians in practice so that they may keep abreast of the progress which is constantly made in medical fields. Closely related to this primary purpose of the Medical School are other functions of almost equal importance. Most prominent among these are: the conduct of medical research, to extend our knowledge of the prevention and cure of disease; the provision of medical care for the thousands of citizens of the state who each year are served in the University Hospitals and the Out-Patient Department; the training of allied professional groups, such as nurses, medical technicians, and professional workers in the field of public health; and the instruction of thousands of university students whose major field of work is in some other department of the University: dental students who devote most of their first two years of professional training to work in the basic science departments of the Medical School; students from Child Welfare, Sociology, Physical Education, Home Economics, Agriculture, Education, and the College of Science, Literature, and the Arts. These secondary functions of the Medical School represent essential services to the University and the state even though they are not directly concerned with medical education.

Selection of students.—In the fall of 1939 the new requirements for admission which had been announced several years earlier became operative. These requirements include a minimum of three years of college work and courses in physical chemistry, psychology, genetics, and eugenics, in addition to the science work previously required. It is the opinion of the faculty that these new requirements will provide the students with a better background for the study of medicine.

The facilities of the Medical School necessitate the limitation of the number of students accepted to approximately one hundred each year, although several hundred applications are received. Selection is made by an Admissions Committee which carefully reviews the college record, special aptitude tests, and personal qualifications of the applicants. Applicants who are native residents of Minnesota are given preference. Second preference is given to applicants from those north-central states which are naturally tributary to Minnesota and which have no medical schools of their own. Applicants from other sections of the country are accepted only if there are special reasons for so doing; the most common reason for such acceptance being that they are outstanding students and sons or daughters of alumni of the University of Minnesota. So far as it is possible to judge, it seems that the average ability of students admitted to the Medical School is definitely increasing. This is highly desirable because no amount of education can compensate for inherent deficiencies in ability.

Faculty.—Two primary essentials for a successful educational program are: able students and a superior faculty. As already stated, the average ability of our student body is increasing, and it is gratifying to be able to make a similar report in regard to the faculty. In the early days of our Medical School, as in

all others, most of the teaching was done by physicians who were also engaged in the private practice of medicine. Many of these were splendid teachers who trained their students well but, with the increasing complexity of medical science and its clinical application, it has become obvious that for most of the teaching and research in the modern medical school one must depend primarily upon teachers who are devoting their full time to university work. Our Medical School is still relatively young and our faculty in certain fields still is inadequate, but progress is being made in strengthening it.

Laboratory and clinical facilities.—Having able students and qualified teachers, the next requisite of a good medical school is adequate facilities for laboratory and clinical teaching. The laboratories of our Medical School are becoming quite well equipped, but the laboratory facilities of every single basic science department are distinctly inadequate for the large numbers of students from the various groups mentioned above, which are being crowded into them.

The clinical teaching of the Medical School is done primarily in the University Hospitals and the Out-Patient departments and in the Minneapolis General Hospital. Certain clinics are held at the Ancker Hospital and Gillette State Hospital for Crippled Children in St. Paul, but these are too far removed for effective use. The patients available in these several hospitals for teaching purposes are reasonably adequate to supply the needs of the Medical School except in certain special fields which should be moderately expanded in the University of Minnesota Hospitals.

The relationship of the Medical School to the Minneapolis General Hospital continues to be satisfactory, although the failure of the responsible board to appoint a superintendent of this hospital has prevented the initiation of certain plans which are in the interests of both the hospital and the Medical School. Chief among these is the joint appointment of a qualified surgeon on a full-time basis who would be responsible for the supervision of graduate and undergraduate surgical teaching in this hospital. A similar joint appointment in Obstetrics and Gynecology and an additional one in Medicine would also be mutually advantageous.

Research activities.—The conduct of medical research is an essential function of a strong medical school. It is not enough that teachers pass on to students the scientific and clinical knowledge which has been developed by others. In doing only that, any teacher would soon become dull, uninspiring, and scientifically decadent. To keep himself alive scientifically it is essential that the teacher have the stimulation of original study of problems in his field. Furthermore, in spite of the great progress which has been made in medicine, the number of disease problems and health processes which we do not thoroughly understand exceed in number and importance those which have been solved. The physician in practice is rarely in a position to make contributions to scientific knowledge, so the responsibility of advancing the medical frontiers falls primarily upon the universities and medical schools of this country.

From 1915 to 1938 the Legislature appropriated \$25,000 annually for the support of medical research at this University. This money was allocated to members of the faculty for the support of individual research projects by the dean of the Graduate School upon recommendation of the Medical Graduate Committee. These grants were used to purchase supplies and equipment and to employ technical assistance for the conduct of research studies in almost every field of medicine. In this manner the special appropriation served an invaluable purpose and made possible many important contributions to the understanding, treatment, and control of various diseases. With the increase in the number and in the scientific

activities of our full-time medical faculty this appropriation had become insufficient to support more than about half of the research projects which were submitted by members of the medical faculty and which seemed meritorious to the Medical Graduate Committee. In view of this it was most disappointing and discouraging that the last Legislature reduced this appropriation for the current biennium to \$20,000 a year. With the millions of dollars which the state of Minnesota is spending each year for the custodial care of patients with diseases which we can neither prevent nor cure, it seems exceedingly short-sighted for the state not to support liberally medical research by the employees of the state who are qualified and anxious to work in this field.

Fortunately during the past biennium we have received several grants for medical research from sources outside the University. These have been exceedingly valuable in enabling certain members of the staff to carry forward specific projects in limited fields. These are listed in the section on gifts in this biennial report.

The list of the researches of the members of the medical faculty which have been published during the past biennium is given in the *Publications of the Faculty* for 1938-39 and for 1939-40. A comparison of this list with the publications of the faculty of a few years ago shows the increase in the scientific work in progress here. We hope most sincerely that the next Legislature will provide a liberal increase in the appropriation for medical research.

Human serum laboratory.—In the fall of 1938, with the aid of a gift of \$10,000 from Mrs. John Dwan, a laboratory for research concerning the value of various human serums for the prevention and treatment of disease and for the collection, processing, and distribution of serums of known value was established in connection with the Department of Pediatrics. There is no other source in the state of Minnesota from which such serums can be obtained. Thus this laboratory is performing both a research and a service function. During the past year Mrs. Dwan has given an additional \$5,000 to the Minnesota Medical Foundation for the support of the work of this laboratory.

Cancer program of the Medical School.—The Cancer Institute of the University of Minnesota Hospitals, which was a gift from Mrs. George Chase Christian, provides beds for cancer patients and facilities for the surgical and radiation treatment of this important disease. In the support of the activities of this institute the Citizens Aid Society of Minneapolis has been making an annual contribution for a number of years. Beginning July 1, 1939, this annual gift from the Citizens Aid Society was renewed for a three-year period in the amount of \$10,000 a year. This fund provides technical assistance in the X-ray and radium treatment of cancer, part of the salary of a physician who is devoting special attention to the X-ray diagnosis of cancer, a fellowship for a graduate student in pathology, for one in surgery, and for one in radiation therapy, all of whom are giving special attention to the diagnosis, treatment, and study of cancer; a medical social worker to work particularly with cancer patients; and a small fund for cancer education and cancer research. This generous grant makes possible a much more constructive and extensive cancer program than it would be possible for us to carry on without it.

The Citizens Aid Society grant also provides for a special lecture on the University campus by some distinguished investigator in the field of cancer. In 1939 this lecture was given by Dr. Ludvig Hektoen, executive director of the National Cancer Council, on "Advances and Knowledge in the Control of Cancer." The 1940 lecture was delivered by Dr. John J. Bittner of the Jackson

Memorial Laboratory, Bar Harbor, Maine, on the subject "Breast Cancer in Mice as Influenced by Nursing."

Several years ago Congress passed a law providing funds for the investigation and the control of cancer. The law is administered through the National Cancer Council of the United States Public Health Service. One part of the program is the training of physicians especially for the diagnosis and treatment of cancer. Our Medical School and Hospitals are one of the centers approved by this council for such training, and during the past year four young physicians, all of whom had already done some graduate work here, were appointed to National Cancer Fellowships and assigned to us for training.

In recent years great progress has been made in the investigation, the diagnosis, and the treatment of cancer, yet its actual cause is still a mystery and the essential information for its prevention or cure is not yet available. In view of this it is important that research in cancer be liberally supported and vigorously prosecuted. During the current biennium, in addition to the small research grant from the Citizens Aid Society, we have had the income from the \$25,000 cancer fund which was appropriated by the Legislature several years ago in honor and memory of former Governor Floyd B. Olson. Dr. Robert Green of the Department of Bacteriology received a grant of \$5,000 from the Carnegie Corporation for the support of his studies of the possible relationship of the virus to the cause of cancer, and Dr. Maurice B. Visscher of the Department of Physiology received a grant of \$16,000 over a three-year period for the support of studies of the influence of diet and physical activity on the development of cancer. This latter fund was from the Barber Oil Company of Minneapolis and is named in honor of Dr. Ivar Sivertsen of Minneapolis.

Psychopathic Hospital and Psychiatric Clinic for Children.—Most medical schools lack adequate clinical facilities for the training of students concerning the exceedingly important emotional disturbances and mental illnesses. Our own facilities for teaching in this field were practically nonexistent until 1937, when the psychopathic unit addition to the University Hospitals began to function. This is a small unit, and one which is not yet adequately supported, but it is already functioning most effectively in our educational program. All medical students have periods of actual experience in this unit. They are already showing an interest in, and understanding of, mental disturbances such as our medical students in the past have never done.

Supplementing the work of this unit, we were able to organize in the fall of 1938 a psychiatric clinic for children. This is supported jointly by the Commonwealth Fund of New York and the Home for Children and Aged Women of Minneapolis (Stevens Avenue Home). It is housed on the top floor of the Eustis Memorial Hospital, in order that it may function intimately with the Department of Pediatrics. About half of the children served by this unit have come from the Twin Cities, and the other half from the state at large. Some have been referred by the juvenile courts, probation officers, and the state schools for boys and for girls. Most, however, have been referred by social agencies of the communities in which the children reside. It is a valuable service that this unit is rendering, but more important is the instruction which is offered through the clinic to undergraduate medical students, graduate students in pediatrics and in psychiatry, graduate social workers, and public health nurses. Many serious emotional problems, social conflicts, and mental illnesses have their beginnings in childhood, so it is important that those to whose attention such problems are likely to come should be familiar with their manifestations, causes, and treatments.

The fiftieth anniversary of the Medical School.—In October, 1939, a three-day scientific program was held in commemoration of the fiftieth anniversary of the Medical School of the University of Minnesota. The theme of this program was "Some Trends in Medical Progress with Particular Reference to Chemistry in Medicine." Participating in the program, in addition to members of the university faculty (and the faculty of the Mayo Foundation) were some of the most distinguished scientists of the present day. Among these guests were Dr. Thomas Parran, Jr., surgeon-general of the United States Public Health Service; Dr. John Peters, professor of medicine of Yale University; Dr. George Whipple, professor of pathology and dean of the Medical School of the University of Rochester; Dr. Charles H. Best, professor of physiology of the University of Toronto; Dr. Anton J. Carlson, distinguished service professor of physiology at the University of Chicago; Dr. Michael Heidelberger, professor of biochemistry at Columbia University; Dr. Perrin H. Long, associate professor of medicine at Johns Hopkins University; Dr. Herbert S. Gasser, director of the Rockefeller Institute for Medical Research; Dr. Detlev W. Bronk, professor and director of the Institute of Neurology, University of Pennsylvania; and Dr. Walter B. Cannon, professor of physiology, Harvard University.

This was a most significant occasion. In fact the science editor of a New York daily newspaper in reporting the meeting referred to it as the most significant scientific meeting of the year. It served as a splendid climax to the first fifty years and as a challenging beginning for the second half-century of the Medical School.

Minnesota Medical Foundation.—At the banquet meeting of the fiftieth anniversary program a special committee of the Minnesota Medical Alumni Association announced the establishment of the Minnesota Medical Foundation. The articles of incorporation of this foundation state that "The object and purpose of this corporation shall be to promote the welfare of the community by the co-operation of the alumni and friends of the Medical School in improving the undergraduate, graduate, and research functions of the University; to establish scholarships, lectureships, professorships, research or student loan funds; to publish a representative medical bulletin; and in general to advance the interests of the Medical School and its alumni." Broadly stated the foundation may be said to have two purposes: to unite into an active organization everybody—alumni, other physicians, laymen—interested in insuring continuing progress in medical education, medical research, and medical service in the Northwest; in the procuring and administration of funds to support in the Medical School activities that will work most effectively toward the prevention and treatment of disease. The funds of the foundation will accrue from membership dues and from gifts and bequests. There has already been a most gratifying and widespread interest in this foundation and it seems that in the years ahead it might well come to play a most important part in the University's program of medical education and medical research.

Graduate medical education.—The Medical School of the University of Minnesota in co-operation with the Mayo Foundation has been a pioneer in graduate medical education. From one year to five or more years of graduate study have been provided as preparation for the practice of a specialty or for careers in teaching and research. In recent years the various specialty groups have been setting up minimum requirements for certification in the various specialties of medicine. These requirements are essentially those which were adopted by the Graduate School of the University of Minnesota twenty-five years ago. The

offering of advanced work in the various fields of medicine and the training of graduate students is an important and desirable function of a medical school. Yet the increase in the number of these graduate students is giving rise to serious problems in regard to space, facilities, and staff. During the current year, there are approximately 600 graduate students registered for major or minor work in the medical sciences. In addition there are many other graduate students who are taking course work in the Medical School. The support of a graduate program of such magnitude is one to which early consideration must be given if its program is to be continued.

Postgraduate medical instruction.—A separate department of postgraduate medical instruction under the direction of Dr. William A. O'Brien was created July 1, 1938, with the aid of a grant from the Commonwealth Fund of New York. During the past two years \$10,000 has been available each year for this purpose. Postgraduate medical education includes all efforts on the part of the physician to improve himself in the art and science of medicine while he is engaged in practice. An effective means for those to whom other opportunities are not available is attendance at organized courses. The Center for Continuation Study affords us an opportunity to assist in planning these programs. In addition, aid has been given for securing the services of distinguished teachers from other medical centers. The development of special sets of lantern slides has also been made possible.

Hundreds of physicians from Minnesota and neighboring states attend these courses each year and return to their communities prepared to practice better medicine. Already this department is playing an important role in providing for the people of this area the best and the latest in medical practice. During the next three years the Commonwealth Fund will supply \$8,000, \$6,000, and \$3,000 for the continuation of the program. (For details of postgraduate medical education courses, see the report of the director of the Center for Continuation Study).

Course in medical technology.—Since 1929 the Medical School has offered a four-year course in medical technology leading to the degree of bachelor of science. The graduates of this course have had no difficulty in obtaining desirable positions doing clinical laboratory or X-ray work in hospitals, clinics, or physicians' offices. The final year of this course is devoted almost exclusively to laboratory work under supervision in the hospital. Limitations of facilities for this practical work have made it necessary to restrict the number of students in the senior class to fifty each year. At the present time the supervision and instruction are inadequate even for this number, but plans are under way to improve this situation in the near future. This course has always attracted an exceedingly able group of young women who are trained to play an important part in the provision of good medical service to the community.

Future program and needs.—In these days of world chaos and uncertainty as to what lies ahead, it is impossible to predict the future of institutions—political, social, economic, or educational. Yet this much is certain, that come what may, medical education and medical research must continue. Whether this country remains at peace or engages in war, whether we continue as a democracy or resort to some other form of government, whether we hold to the economic principles of capitalism and individual initiative or swing further in the direction of socialism, the health of the individual and of the public must be safeguarded, or the situation becomes hopeless. War increases the need for medical and public

health service, both for the armed and for the civilian population. A breakdown or deterioration of these health services means demoralization. So whether we are preparing for peace or for war, our country needs to expand and strengthen, rather than curtail and weaken, medical education, medical research, and medical and public health service.

Looking to the immediate future, the Medical School of this University needs a modest increase in its support budget in order to make several very important additions to the teaching and research staff and to provide modest increases in salary for some of the exceedingly able younger men of the staff who must not be lost to medical education or to this University.

Research on the prevention and cure of disease is being pushed as rapidly as funds and facilities permit. The staff of the Medical School is more able and more active in medical research than ever before. Sound public policy demands an increase in the funds provided for the support of the researches of this group. A single discovery concerning the prevention and cure of disease may well mean the saving to the people of this state of many times as much in dollars and cents as they ever have expended or will expend for the support of medical research. And beyond all this is the still greater return in terms of better health and even of life itself.

The support of graduate medical education in connection with the Medical School is one of the problems which remains to be solved. There is a great increase in the number of physicians turning to the University for graduate work in medicine. Most promising of these are young men who have just completed their internships after years of expensive college and Medical School education. The provision of adequate instruction and laboratory and clinical facilities for these graduate students is a serious problem which faces the Medical School at the present time, and one which demands a solution in the very near future.

The physical facilities of the Medical School are seriously in need of moderate expansion. The Anatomy Building lacks laboratories for graduate students, for special work in anatomy and pathology by medical students, and for a teaching museum of anatomy and pathology. In Millard Hall the laboratories of physiology and bacteriology are greatly overcrowded, the animal quarters are inadequate, as are the laboratories for research, for elective courses, and for graduate students. In the hospital, efficient administration is handicapped by a lack of central laboratories, operating rooms, X-ray services, administrative offices, et cetera, and by the limited bed capacity, which make it impossible to accept promptly from the state many patients whose conditions are considered urgent by the physicians who refer them to the University Hospitals for care. All of these situations—in the University of Minnesota Hospitals, in the Anatomy Building, and in Millard Hall—could be relieved for many years to come by the construction of a laboratory and research building which would house the clinical and research laboratories of the University Hospitals, the Department of Pathology, which is now in the Anatomy Building, and the Department of Bacteriology, which is now in Millard Hall. In the interests of the best hospital service as well as of the most effective teaching and research, the Departments of Pathology and Bacteriology should be physically connected with the University Hospitals.

The standards of medical, hospital, and public health practice in any area are dependent upon the standards of medical education and medical research carried on in the University serving that area. Minnesota has the only complete Medical School between Madison, Wisconsin, and the Pacific Coast. This means that

upon this institution falls the primary responsibility of setting the standards of medical service which the people of this area shall receive. Clearly nothing but the best will suffice, and fortunately the best in the long run is the most economical.

Respectfully submitted,

HAROLD S. DIEHL, *Dean of Medical Sciences*

SCHOOL OF NURSING

The School of Nursing submits a report for the biennium July 1, 1938 to June 30, 1940.

Thirtieth anniversary.—The first university school of nursing celebrated the thirtieth anniversary of its founding October 16-21, 1939. The theme of the anniversary was "The University and the Preparation of the Nurse for Community Service." A calendar of the first thirty years of the school's progress, as prepared by a committee of the faculty follows.

YEARS OF PROGRESS

1909-1939

- 1909 The University of Minnesota School of Nursing, the first school of nursing to be part of a university, founded by Dr. Richard Olding Beard. Superintendent of nurses, Bertha Erdmann.
- 1910 Louise M. Powell appointed superintendent of the University of Minnesota School of Nursing.
- 1912 The first graduating class of eight students presented to President Northrop with recommendation for the degree of graduate in nursing.
- 1913 First meeting of the University of Minnesota Nurses Alumnae.
- 1917 Affiliation with Glen Lake Sanatorium established for experience in tuberculosis nursing.
- 1918 First public health courses offered.
- 1919 Introduction of the five-year curriculum in nursing, leading to the degree of bachelor of science and diploma of graduate in nursing. Nurses' Self-Government Association organized.
- 1920 Central school, including University of Minnesota Hospitals, Minneapolis General Hospital, Charles T. Miller Hospital of St. Paul, and the Northern Pacific Beneficial Association Hospital of St. Paul, established. First alumnae quarterly published.
- 1921 Beta chapter of Alpha Tau Delta, now national nursing sorority for five-year nursing students, installed.
- 1922 Department of Preventive Medicine established at University with Dr. Harold S. Diehl at head. Public health nursing courses under direction of Anna Jones (Mariette) and Dorothy Kurtzman.
- 1923 Louise M. Powell appointed first director of the University School of Nursing. Office of the School of Nursing established in Millard Hall. Nursing superintendents and their assistants, and members of the teaching staffs of the affiliated hospitals were given faculty rank.
- 1924 Marion L. Vannier appointed Miss Powell's successor. Eula Butzerin appointed for public health nursing courses.
- 1930 Katharine J. Densford appointed director of the school.
- 1931 Postgraduate curricula in clinical services established with university credit. Decrease of hours of practice from 54 to 48 (later 42) weekly, approved.
- 1932 Group method of rotation of student to various clinical services introduced.
- 1933 New nurses' hall on the University campus dedicated by Richard Olding Beard.
- 1934 Epsilon chapter of Sigma Theta Tau, national honorary nursing sorority, installed. Field practice in public health nursing in Minneapolis and St. Paul included in undergraduate curriculum for all students (most since 1932).
- 1937 Practice in psychiatric nursing added to undergraduate curriculum.
- 1938 The university nurses' hall officially named Powell Hall. First of annual admission in spring quarter of five-year students only, began.
- 1939 The thirtieth anniversary of the University of Minnesota School of Nursing.

Curriculum.—Curriculum planning and revision (a continuous process) has, in the biennium, involved many objectives, among them the attempt (1) to avoid overlapping, (2) to improve co-ordination, (3) to further integration, (4) to give greater awareness of the need for understanding the normal as a basis for preventive and curative care, (5) to emphasize the health and social aspects of all

nursing, and (6) to develop a concept of nursing in which the student's practice becomes the functioning of social and scientific principles rather than the performance of technics. Among the items of special interest are the assignment of a graduate assistant (a nurse) to assist in the teaching of the basic sciences; the making parallel of class teaching with the practice of the student in an additional service, that of eye care (operating room, tuberculosis, public health, communicable disease, and psychiatry have been done earlier, pediatrics is in process of change); the inclusion of definite hours of social service and mental hygiene instruction in every service; the inauguration of a twenty-hour course in first aid; the initial omission for three-year students of the valuable field practice in public health nursing due to the large increase of graduate nurse students in community health agencies, and substitution for this six-week period of four weeks in nursery school and two additional weeks in out-patient departments; the study by faculty, students, and a special committee of student experience in tuberculosis nursing; inclusion of special courses for graduate nurses as demand arises; increase and improvement of ward libraries and of ward teaching; and increase from 12.6 per cent (in 1936) to 14.4 per cent (in 1940) of formal class instruction, with a corresponding decrease in practice from 87.4 to 85.6 per cent. Included in the 85.6 per cent is from one to three hours per week of ward teaching. The ratio of formal class to nursing practice is 1 to 5.93, indicating a still heavy weighting of practice in the three-year curriculum.

Students.—An advance of major importance was made when five-year students only (or those with 75 academic credits with a C average) were admitted to the school beginning with the spring class of 1938. The number of this group has steadily increased, and is larger now than that of the combined five- and three-year group in 1938, indicating again that the raising of entrance requirements has not been a deterrent to enrolment. Student hours on duty, while still too long, have been reduced for most students to 42 per week. Students, and most graduates, now have a six-day week. All students (five- and three-year) now enrolling in the school must maintain a C average in all academic work carried. Student illness during the past year varied from 0.79 days per student in one hospital to 7.4 in another, and 11.2 in another, the annual average number of days of illness per student for the country as a whole being 8.3 days and for the west north central states, 8.2 days. We tend to draw most of our students from Minnesota and surrounding states, though applicants come in small numbers from distant states as well. We believe the quality of the student body is improving as may be seen in the fact that every enrollee in the last class of fifty students maintained a C average in her first quarter's work. A study of cancellation of students during the past five years shows almost no failures of five-year students. It also shows a reduction of failures among three-year students. The number of university undergraduate students was 293, July 1, 1938, and 294, July 1, 1940; five-year students were 126 in 1938 as compared with 173 in 1940; affiliates, 109 in 1938 as compared with 85; postgraduates, 8 as compared with 15; and the total enrolment 393 in 1938 as compared with 411 in 1940.

Faculty.—The faculty has increased somewhat in numbers, one member in the field of teacher training being added to the central office, funds being provided through the George-Deen and Smith-Hughes acts and secured by the College of Education through the State Department of Education. Continued efforts are made by the faculty to improve its own preparation and to keep abreast of developments in its own and related fields; notwithstanding such effort the immediacy of nursing

service needs not infrequently entails the appointment of personnel inadequately prepared for university teaching.

Studies.—"Factors associated with job satisfaction in nursing," a study of 275 graduates, made in the Department of Psychology by a graduate nurse student, indicates that in general about 90 per cent of the 73 graduates from our school who participated in the study were quite well satisfied as students and about 80 per cent continue to be well satisfied as graduates. A follow-up study of senior students yields similar findings. The chief area of dissatisfaction in both groups centers around inability to give satisfactory nursing due to pressure of work to be done. In co-operation with the Department of Mechanical Engineering, studies are being carried on to increase the simplicity and effectiveness of nursing technics. Analysis of facilities composing clinical experience for students in one of the hospitals is in process.

Endowment fund.—This fund raised by the alumnae has increased from \$3,621.56 in 1938 to \$4,181.27, June 30, 1940. Richard Olding Beard lectureship addresses of 1938 and 1939 were given respectively by Major Julia Stimson, R.N., M.A., D.Sc., on "What Everyone Wants but Does Little About" and Isabel M. Stewart, R.N., M.A., on "Florence Nightingale—Educator."

Survey of school.—This was made in May, 1940, by the State Board of Nurse Examiners; the chief recommendation was that more adequate graduate nursing service be provided in areas where students are having practice, a need of which the faculty is fully cognizant.

Part-time positions.—The offering of part-time work to graduate nurse students has attracted outstanding personnel from whom several of our own faculty have been chosen. Unfortunately, because of overcrowding in the residences, this plan, which has attracted wide interest, is having to be curtailed rather than extended as it should be.

General problems and recommendations.—The following are the most pressing problems together with some suggestions for their solution:

Bedside nursing.—The need is urgent in most hospital services, except those of the Charles T. Miller Hospital, for an increased graduate nurse staff to provide good bedside nursing, a *sine qua non* of effective learning. The past increase in nursing budget, though marked, has not kept pace with the demands for nursing service. This greater acceleration in demand than in budget has, for students, resulted in pressure, inability to make assignments on the basis of educational needs, and poor grading as to difficulty of experience. The increasing complexity of patient care and research makes overwhelming demands upon a nursing service, and students require more supervision than is now available.

Student program.—The first three quarters of the Nursing School curriculum are so heavy as almost to preclude satisfactory student performance. The load of work carried by the nurse student is in marked contrast with that of a typical lighter academic program. If hospitals are not able to lighten this load, the faculty recommends that the student pay for her own maintenance at least during the second quarter (as she now does in the first) in order that her experience may be chosen for its educational, rather than for its service, value.

Field experience in public health nursing.—Due to overcrowding of the community health agencies by graduate nurse students, field experience for the undergraduate three-year student is having to be withdrawn. In lieu of this experience plans have been made for the student to receive four weeks nursery school and two additional weeks out-patient department experience. This is not, however, experience in kind, and it is recommended that there be added to the faculty in each hospital a public health nurse whose chief function it shall be to inject into the handling of all patients and into all teaching the consideration of preventive aspects of care.

Majors.—Increased enrolment in the major course in nursing education, including practice teaching, has resulted in great overcrowding which will necessitate teaching the course twice (instead of once) each year in the coming biennium. This in turn will entail a demand for more supervision from a faculty now able to give scarcely the minimum for adequacy in this field. Possible solutions are (1) addition of teaching personnel, (2) limitation of enrol-

ment, a policy not to be recommended in view of the great demand for graduates of this curriculum, (3) inclusion of other fields of specialization as, for example, majors in physical therapy, personnel work, and the sciences basic to nursing.

Entrance requirements.—Admission of five- and three-year students in the fall with the consequent teaching of both groups in the same class constitutes a major problem of student instruction, which in the spring does not exist since only five-year students are admitted then. In this anniversary biennium of stocktaking the faculty is mindful that fall entrance requirements are now where Dr. Beard placed them thirty years ago—much in advance at that time of entrance requirements of hospital schools. The founders of the school were not satisfied to imitate hospital schools. A university school, they thought, should be better. As the chief means of improving the school at present, the faculty recommends admission in the fall of five-year students only, as is now done in the spring.

Faculty.—Outstanding needs for more teaching personnel are noted in most services when we consider the excessive load (and additional untouched functions) of certain teaching supervisors, particularly in the most crowded services, resulting all too often in the loss of our best qualified faculty members. Increase in numbers of students in the degree program who have completed two years of academic study in college or university has made even more evident the need for head nurses and supervisors of at least equivalent or superior preparation.

Research.—An increased proportion of our faculty prepared to do research, and increased time allowance for this work is urgent.

Residences.—Nurses' residences in two of our hospitals are so overcrowded as to form an important factor in the lack of adjustment, particularly of young students to their study and practice; it is usually new students who are crowded into temporary and unsatisfactory quarters.

Accrediting.—The Association of Collegiate Schools of Nursing is composed of the leading university schools in the country. Lack of our active participation in, and discussion of, the studies, plans, and problems common to members of an organization with the purposes of this one seems incompatible with the capacity of a faculty such as ours to profit by, and contribute to, the program. It is suggested that the question of membership in this association be given further consideration.

Costs.—Our faculty believes that students should pay for their education as do other students, that hospitals should pay for service rendered by the students, and that the state should provide additional needed subsidy as is done in other fields of education. A basis for the study of nursing education and nursing service has just been made available under the title: *Administrative Cost Analysis for Nursing Service and Nursing Education*. (It was prepared by the Joint Committee on the Costs of Nursing Service and Nursing Education of the American Hospital Association and the National League of Nursing Education in co-operation with the American Nurses' Association.) A study of the costs of nursing service and nursing education should be made in the coming biennium.

Respectfully submitted,

KATHARINE J. DENSFORD, *Director*

PUBLIC HEALTH TRAINING CENTER

The Public Health Training Center summarizes its activities for 1938-40, as follows:

Background of the program.—The year 1939-40 marked the end of the fourth complete year of the training center for public health personnel partially subsidized by federal funds. Prior to the establishment of this program in the spring of 1936, the University had awarded an occasional advanced degree to students majoring in preventive medicine and public health, and the training course for public health nursing had been in operation about fifteen years. With the demand for trained personnel for the many new public health positions under the rapid expansion made possible by social security funds, the University reorganized the Department of Preventive Medicine and Public Health to provide professional training courses for medical health officers and public health engineers. A few students were received in the spring of 1936, but not until that fall were the courses organized on the basis of a full-year program.

The consolidation of the training courses for the three professional groups under the immediate direction of one department has been a somewhat unique educational experiment because in other schools the three groups have been largely separated. This has meant that the health officer trained in one institution has had little concept of the background and work of the engineers or nurses with whom he must later work but who have been trained in a separate institution and who have an equally inadequate concept of the tasks that confront the health officer. The work of these three groups is so intimately related in actual practice that it seems highly desirable for each to have a basic understanding of the others' fields and points of approach. The consolidation of the training under unified direction should serve toward a better understanding and therefore increased efficiency. To the same end the training course of the health officers and engineers and the nurses seeking graduate degrees has been so arranged that each will have basic courses in public health administration, epidemiology, sanitation, public health nursing, and biostatistics, the basic courses being taken together so far as possible.

Programs of study.—In determining the course of training for the groups, it has been remembered that individuals taking them will be employed largely by governmental agencies in administrative and service positions and not in a research capacity. While ideally the student should be trained for both, time does not permit this except in special cases. The program of study for the health officers and engineering group is therefore a mixture of technical subjects supplemented by courses that will assist in the community application of this material. Thus, during the present year, the health officer group has supplemented its courses in public health by taking courses each quarter in political science, applied bacteriology (not detailed laboratory techniques), and during the spring quarter, a course in journalism. It is recognized that this does not train a research worker, but it should serve to fit the medical graduate for a position of administrative responsibility in public health work. The student who seeks a career in laboratory research should envision a longer period of basic laboratory science rather than this type of one year of practical training.

Training problems.—One of the principal difficulties encountered is that of practical experience for the student. This is essential before the graduate assumes any position of responsibility. Yet the field training of the health officer and engineer requires more time than can be crowded into an already full academic program and the number of students that can be accepted for training by a single agency is so small that no school of public health has obtained a satisfactory solution to this problem. It seems inevitable that the University must limit its training to the theoretical instruction, leaving the field experience to the employing agency. In the case of the nursing students who are working for a Bachelor's degree their field experience is, however, an essential part. Unfortunately the demand for such field experience at present exceeds the current facilities of the state of Minnesota, so that students are at present being scheduled for field training as long as five academic quarters in advance. The increasing number of five-year students electing public health nursing in the last year has added to this difficulty as this group must complete its training in a more limited period of time.

Another serious difficulty is presented by the fact that students come for one or two quarters at a time, returning later to complete their work. This is inevitable as long as the demand for trained personnel so greatly exceeds the supply. It means, however, that the program of study is constantly interrupted with a real loss to the student. It is unavoidable under such circumstances that the number of students enrolled is out of proportion to those who complete their training course.

Federal supplement.—The federal subsidy has supplemented the university funds. Among the items made possible by it are the staff in public health engineering, part of one of the nursing salaries (shared with the Health Service and the University High School), laboratory assistants in biostatistics, partial payment of the nursing field agencies, extra clerical help, and the full-time employment of a visiting professorial lecturer in public health administration. It is planned to bring some visiting lecturer to the University each year in a similar capacity to assist in the work in public health administration, a plan which will bring valuable experience from the field to the student.

Respectfully submitted,

GAYLORD W. ANDERSON, *Professor and Head*
Department of Preventive Medicine and Public Health

UNIVERSITY OF MINNESOTA HOSPITALS

I present the report of the University of Minnesota Hospitals for the years 1938-39 and 1939-40.

In-Patient Department.—The number of patients admitted for the year 1938-39 was 9,552 and for the year 1939-40, 9,470. The decrease was due to the reduction in number of Health Service patients from 1,226 in 1938-39 to 1,014 for the past year.

The total number of days of hospital treatment aggregated 140,675 as compared with 134,931 the previous year; an increase of 5,744 hospital days for 1939-40.

The average number of days per patient stay in the hospital for 1939-40 was 14.7 as compared with 14.1 in 1938-39. Deaths for the past year numbered 493 as compared with 455 for the preceding year. The percentage of post-mortems obtained for 1938-39 was 69.5 and for 1939-40, 73.02. The daily average number of patients was 384.3 for 1939-40 as compared with 369.6 for the previous year. The highest daily census was 448 for 1939-40 as compared with 427 the previous year. The surgical operations performed during the year aggregated 6,522 as compared with 6,132 a year ago. (See Table I.)

Out-Patient Department.—The number of visits to the Out-Patient Department aggregated 101,785 in 1939-40—an increase of 2,968 over the 98,817 visits of 1938-39.

Financial.—An examination of Table II reveals a net operating balance of \$4,006.64 for 1939-40 as compared with a balance of \$36,594.49 for the previous year. The per diem cost based on charging against the in-patients the full cost of maintenance excluding the Out-Patient Department was \$5.62 for 1939-40 as compared with \$5.43 for the previous year. The cost per out-patient visit for 1938-39 was \$1.19 as compared with \$1.25 for last year.

General remarks.—In the In-Patient Service the largest number of hospital days care ever given by the hospital was during the year 1939-40. This is also true of the Out-Patient Department which experienced the greatest number of patients' visits in its history. The county waiting list has been reduced from 657 in 1939 to 591 on July 1, 1940.

For the year 1938-39 the X-Ray Department gave a total of 28,722 services; for the year 1939-40, 32,340. The laboratory of the In-Patient Department gave 134,634 services as compared with 126,426 for the year 1938-39.

The Physical Therapy Department showed an increase in the number of services, 10,204 being the number of services rendered in 1938-39 and 12,277 for the year 1939-40.

TABLE I. IN-PATIENT DEPARTMENT REPORT

	1938-39	1939-40
Total patients admitted		
Private	706	719
Per diem	840	845
Free		
Eustis Hospital	367	382
Teaching and research	156	176
Charity	473	437
Staff	240	265
County	5,214	5,231
Health Service	1,226	1,014
Psychopathic	206	184
Private	17	21
Per diem	14	30
University group hospitalization		
Private	48	100
Per diem	45	66
Total	9,552	9,470
Total patients treated (discharged)		
Private	695	707
Per diem	820	786
Free		
Eustis Hospital	387	398
Teaching and research	145	174
Charity	457	443
Staff	251	271
County	5,191	5,293
Health Service	1,222	1,004
Psychopathic	217	218
Private	13	15
Per diem	14	26
University group hospitalization		
Private	47	103
Per diem	45	62
Total	9,504	9,500
Total days hospital care		
Private	6,452	6,809
Per diem	9,469	10,699
Free		
Eustis Hospital	9,236	9,639
Teaching and research	1,980	2,238
Charity	5,681	5,051
Staff	1,483	1,248
County	83,743	89,665
Health Service	6,488	5,341
Psychopathic	8,673	7,230
Private	650	479
Per diem	361	920
University group hospitalization		
Private	395	899
Per diem	320	457
Total	134,931	140,675
Average days per patient		
Private	9.1	9.5
Per diem	11.2	12.7
Free		
Eustis Hospital	25.1	25.2
Teaching and research	12.6	13.3
Charity	12.1	11.3
Staff	6.1	4.7
County	16.0	17.1
Health Service	5.2	5.3
Psychopathic	42.1	39.3
Private	38.2	22.8
Per diem	29.0	36.7
University group hospitalization		
Private	8.2	8.9
Per diem	7.1	6.9
Average length of stay per patient	14.1	14.7
Daily average number of patients		
Private	17.6	18.6
Per diem	17.6	18.6
Free		
Eustis Hospital	25.2	26.4
Teaching and research	5.4	6.1
Charity	15.5	13.8
Staff	4.0	3.4
County	229.4	244.9
Health Service	23.7	19.4
Psychopathic	24.5	19.7
Private	1.5	1.3
Per diem	1.0	2.5
University group hospitalization		
Private	1.3	2.4
Per diem	1.1	1.2
Daily average census for entire hospital	369.6	384.3

TABLE II. STATEMENT OF INCOME AND EXPENDITURES

	July 1, 1938 to June 30, 1939	July 1, 1939 to June 30, 1940
Cash balance	\$ 48,926.92	\$ 60,997.84
County and state reimbursement	403,821.88	442,664.54
Minnesota Hospital and Home for Crippled Children	39,989.90	39,998.97
Out-patient and per diem	189,498.76	191,516.10
General university funds	105,977.58	117,407.20
Psychopathic Department	62,500.60	65,000.00
Total	\$850,715.64	\$917,584.65
Salaries and wages	\$411,062.33	\$450,159.80
Supplies and expense	347,990.64	388,397.83
Equipment	28,149.12	25,743.01
Buildings and improvements	2,515.71	368.72
Obligations at end of year	789,717.80	864,669.36
Free balance	24,403.35	48,908.65
Free balance	36,594.49	4,006.64
Total	\$850,715.64	\$917,584.65
Cost of operation		
In-Patient Department	\$734,525.64	\$790,310.35
Out-Patient Department	116,190.00	127,274.30
Cost per patient day	5.43	5.62
Cost per out-patient visit	1.19	1.25

An increase in the number of services given was also noted by the X-Ray Therapy Department: 10,455 treatments were given in 1938-39 and 12,913 in 1939-40. This department has been badly handicapped in previous years because of the demand for the increase in number of treatments. Through the generosity of the Citizens Aid Society a new 220 KV apparatus was installed which increased immeasurably the capacity of this department and has aided in reducing the long waits for service.

The Psychopathic Hospital admitted 237 patients in 1938-39 and 235 in 1939-40. These patients used a total of 9,684 patient days in 1938-39 and 8,629 in 1939-40.

Under the University Group Hospitalization plan 93 patients were admitted in 1938-39 and 166 in 1939-40. These patients consumed 1,356 patient days in 1939-40 as compared with 715 the previous year.

It is only through the aid of its many generous friends that the hospitals have been able to maintain their standards. To the Citizens Aid Society for the gift of the deep X-ray therapy apparatus; to the Traffic Club of Minneapolis for numerous gifts to our children; to the Crippled Child Relief, Inc. for aid to children; to the American Legion Auxiliary, Department of Minnesota, for the gift of a drinker respirator; to the Faculty Women's Club for auxiliary services; and to many others that space does not permit mentioning here, the hospitals express deep appreciation.

Respectfully submitted,

R. M. AMBERG, *Superintendent*

SOCIAL SERVICE DEPARTMENT OF UNIVERSITY OF MINNESOTA HOSPITALS

The Social Service Department of the University of Minnesota Hospitals submits the following report for the biennium 1938-40.

Service to the patients: medical social case work.—During this period the department averaged 8.5 case workers who rendered medical social case treatment to 2,747 patients. These cases are classified into intensive, slight service, and steer-

ing, depending upon the relationship between sickness and environmental maladjustment, and the responsibilities of nonmedical and medical social agencies participating in the patient's care. The terms were defined in my report for 1934-36.

Following is the intake of cases during the biennium grouped under these three types, excluding the cases carried over from each previous year or closed and reopened within the year :

	Intensive	Slight Service	Steering Service	Total
1938-39	382	503	166	1,051
1939-40	317	482	127	926

The total number of new cases and old reopened cases—those previously treated prior to the year under consideration—was 1,977, making a monthly intake of 82.38 for the department, and 9.69 for each staff worker.

The sources from which these 1,977 patients were referred to the Social Service Department were as follows: 1,201 (60.65 per cent) by the Out-Patient Department and University of Minnesota Hospitals physicians; 104 (5.31 per cent) by the hospital administration; 119 (6.02 per cent) by the hospital Social Service Department; 28 (1.42 per cent) by the School of Nursing; 99 (5.01 per cent) by patients and relatives; and 426 (21.55 per cent) by social agencies and nursing organizations.

The total number of cases carried each month averaged 378.29 for the department and 44.73 for each staff worker. Many cases are active from six months to a year during which time the problems may change, requiring additional medical social treatment resources. Especially is this true of patients whose medical prognosis is poor and whose social environment is inadequate.

Unrecorded social services.—While a medical social study and analysis is necessary as an approach to treatment on a case work level, and a total of 2,747 patients received this care, there were many others who needed the assistance of a medical social worker for one or two definite services and for whom no further responsibility was assumed. These unrecorded units of social care shown in the tabulation are obviously a service to the hospital and the community as well as to the patient. It must be remembered that they are rendered also to the more complicated case work group just described, and consequently not counted here.

	1938-39	1939-40
Reports to other social agencies and nursing organizations.....	2,010	2,034
Directed to other social agencies for social care.....	110	95
Referred by University of Minnesota Hospitals administration regarding out-patient fees.....	109	113
Advice or interpretation to patient or family		
By conference	4,758	4,440
By letter	2,083	2,515
By visit	14	6
Discharge arrangements for hospital patients.....	3,964	4,059
Board and room arrangements for patients.....	899	911
Nursing home arrangements	1,157	1,474
Transportation arrangements	317	328
Total	15,421	15,975

The number of reports to social agencies remained relatively constant through the biennium, giving a total of 4,044, which exceeded the number for the previous biennium by 1,261, as a result of the growth of co-operative work with the county welfare boards. The number of patients directed to some other social agency for care, and not eligible for care here, was 205 for this period, and three fewer than in the previous biennium. Requests by the hospital administration for interpretation regarding the patients' ability to pay clinic fees dropped from 267 in the previous

biennium to 222 this biennium, due to the fact that an increasing number of patients obviously require financial help from the county.

A much larger number of patients received advice and interpretation through conferences or letters these last two years than during the years 1936-38, there being 13,796 such services in the latest two-year period, and 9,755 in the preceding one. The increase is due partly to a more complete follow-up service and to a growing appreciation of the emotional aspects in illness.

Figures for discharge arrangements for hospital patients remain relatively the same through this biennium and the previous one. Yearly for the past two years there have been approximately 900 patients requiring help with board and room arrangements to enable them to attend clinic. A far larger number than this boarded near the hospital, but presented personal, county, or other guarantees for payment upon admission and so did not come to the attention of the Social Service Department.

The increase in nursing home placements from 1,157 in the first half of the biennium to 1,474 in the second half is a result of the necessity of conserving hospital beds, the more receptive attitudes of the county welfare boards and county and township officials toward granting the necessary amount for this care, the allocation of old age assistance and aid to the blind grants, which can be raised to permit nursing home care, and the increased number of nervous and mental patients served in the Out-Patient Department. Transportation needs of the patients have been turned back consistently to the county of residence so only an occasional patient now presents a true emergency in this regard, there being approximately three hundred each year.

Educational services.—The department has furnished field work training to medical social work students, as heretofore. An advance was made the last year in the interpretation of the social aspects of illness for uses of the hospital nurse. This was done by six lectures for nursing supervisors and two for the class in nursing arts. It is expected that subsequent information will be given regarding the social aspects of illness within various diagnostic groups. One lecture was also given to the class of public health nurses and one to the hospital librarians. In collaboration with the Medical School two institutes were sponsored, offering post-graduate educational opportunities to members of the staff.

Community responsibility.—Many new problems have confronted the Social Service Department in regard to the application of the Social Security Program to our organization. Considerable time has been spent in working out policies with the Bureau of Services to Crippled Children, Bureau for the Blind, and the county welfare boards which administer aid to dependent children, old age assistance, aid to the blind, and other forms of public assistance, including arrangements for medical care in those counties in which the county board has turned over this responsibility. Our relationship to the public institutions has remained essentially the same as in previous years. The noninstitutional public assistance agency of the state as represented by the county welfare boards has vastly increased the work of the Social Service Department in the area of co-operative service and interpretation.

Respectfully submitted,

FRANCES M. MONEY, *Director*

SCHOOL OF DENTISTRY

To the President of the University:

SIR: I herewith submit a brief summary of the activities of the School of Dentistry for 1938-40.

Fiftieth anniversary.—The School of Dentistry became a part of the University in the fall of 1888, and awarded its first diploma in dentistry in 1889. During these fifty years the School of Dentistry has had a faculty of loyal and earnest members who have enjoyed the respect and confidence of the profession both here and elsewhere, and, together with the alumni of the school, have made an enviable record for their leadership and achievements in dentistry. A university bulletin containing the addresses and papers presented at the anniversary program in October, 1939, has been sent to alumni, to all the schools of dentistry, and to many practicing dentists as a service to the profession, to inform them of the present achievements in dental education, research, and practice.

Curriculum.—The class of June, 1940, was the last to be registered on the 2-3 plan of dental education inaugurated in 1927. This curriculum was based upon the recommendations of the Carnegie Foundation for the Advancement of Teaching after a survey of dental education, 1920-26. All students now in attendance are required to complete the four-year curriculum, and admission is based upon a minimum of two years of pre-dental college work. In consequence of this change there was no regular junior class in 1939-40, and there will be no regular senior class in 1940-41. In the fall of 1941 a difficult problem will be to provide classroom, laboratory, and clinical facilities for the fourth class and to enlarge the faculty to meet the teaching load for the added year in the dental curriculum.

Postgraduate courses.—The School of Dentistry, through the Extension Division and also through the facilities of the Center for Continuation Study, has continued to offer to practicing dentists at convenient intervals brief courses of an intensive type consisting of lectures, demonstrations, and clinics on various phases of practice which do not carry credit toward an advanced degree. These courses have included children's dentistry, orthodontia, prosthetics, and other phases of clinical dentistry. Any announcement of courses in prosthetics brings an overregistration. Faculty members have attempted to meet this demand by special lectures and clinics before dental associations in nearly every part of the country. Two technicolor motion picture films on prosthetics have met with enthusiastic response in all parts of the United States and Canada. A number of members of the faculty are to be especially commended for the generous responses they have made to an increasing number of requests for lectures and clinics before widely scattered dental associations. Faculty members have also been unusually active and influential in national, state, and local dental organizations, especially in studies related to socio-economic, educational, research, and graduate work problems.

Graduate education and research.—This biennium has witnessed important progress in graduate courses leading to the degree of master of science in dentistry through the Graduate School of the University, and also in an expanding program of dental research. A special clinic for graduate students in orthodontia has been established. It includes a staff and full equipment. Graduate students are making studies of problems relating to the treatment of irregularities of the teeth, including the frequency and cause of root absorption in cases undergoing treatment.

A new chemical-biological laboratory with personnel and equipment has been completed for graduate research, and among studies being made are the role of fluorine in the prevention of dental caries, the effect of a deficient diet on teeth, the use of radioactive isotopes in the study of mineral metabolism, and the determinations of fluorines in foods.

The Carnegie Corporation has provided funds for fellowships to assist graduate students. Two objectives are included in this undertaking: (1) to discover new facts by which we hope to reduce the frequency and effects of dental diseases; (2) to train capable persons to prepare for a career in dental teaching and research and for specialization in practice. Up to the present time three individuals have completed the three-year graduate course and have received the degree of master of science in dentistry and are now occupying teaching positions in schools of dentistry.

Course for Dental Hygienists.—The two-year course leading to the degree of graduate dental hygienist continues to attract a full class. The employment situation for registered hygienists in schools, hospitals, and private offices has improved, and graduates are experiencing little difficulty in securing positions. No change has been made as yet in the length of the course, but the trend is toward a four-year curriculum leading to a Bachelor's degree and to include cultural and public health courses.

Respectfully submitted,

WILLIAM F. LASBY, *Dean*

COLLEGE OF PHARMACY

To the President of the University:

SIR: I submit the following report of the College of Pharmacy for the biennium 1938-40:

Enrolment.—Undergraduate: In 1938-39, 175 students were enrolled in the College of Pharmacy (166 resident and 9 nonresident); in 1939-40, 194 (173 resident and 21 nonresident), an increase of 10.8 per cent over the preceding year. The undergraduate enrolment during the biennium showed an increase of 8.2 per cent over the 1936-38 biennium. A comparison of the resident undergraduate student enrolment between these two periods shows an increase of 10.4 per cent whereas the nonresident undergraduate enrolment decreased 11.7 per cent. Despite the fact that only those students who had a college ability rating of 35 or above were accepted for unconditional registration, the enrolment of freshman students in 1939-40 was unusually large. This shows that during this year more students than ever before came to the College of Pharmacy directly from high school. The increased enrolment in the sophomore class also shows that we had a larger number of students entering with advanced academic standing from junior colleges, from other accredited institutions, and from other colleges of pharmacy than heretofore. Because of the increased freshman and sophomore enrolments in the 1938-40 biennium, it may be concluded that more students of better-than-average ability are interesting themselves in the pharmaceutical profession and that the number of students with one or more years of academic training who are turning to pharmacy is on the increase. This evidence of increased interest in pharmacy may be due to the fact that placements for graduates are easily made and that opportunities in this field are great. Even though some practitioners attribute the easy placements of our graduates to shortage of registered pharmacists, the registration figures show that the ratio of registered pharmacists (active and inactive, 2,380) to pharmacies (1,090) is 2.11 to 1.0, the same that it has been for a number of years. In my opinion, this apparent shortage may be accounted for in a large measure by the fact that employers are now demanding four-year graduates of accredited colleges of pharmacy and not merely licenses to practice pharmacy. In view of these facts, I believe that the increased enrolment is a healthy one and also normal under present economic conditions.

Graduate: During 1938-39, 20 students, enrolled in the Graduate School, were taking their major work in pharmaceutical chemistry while in 1939-40, 21 were registered for graduate courses offered in the College of Pharmacy. I believe that this number of graduate students in our field will remain constant until such time as proper laboratory space and facilities make it unnecessary to place such strict limitation on enrolment. During the 1938-40 biennium, 40 applications were received for graduate teaching assistantships. All of the applicants were definitely superior undergraduate students. Even though subsidies could be provided to but a small part of those making application, it would be impossible for us to accept them under present working conditions. It is regrettable that the opportunity to do work at the graduate level, in a field in which demands are so great, should be denied exceptionally well-qualified young men and women.

Graduations.—In 1938-39, 36, and in 1939-40, 47 students were graduated with the degree of bachelor of science in pharmacy. In 1938-39, 5 master of science

degrees and 1 doctor of philosophy degree were conferred while in 1939-40, 2 received the master of science degree and 2 the degree of doctor of philosophy.

Curriculum.—The changes in the curriculum (see *President's Report*, 1936-38, p. 248) became effective in the fall quarter 1938-39. Student difficulties arising from transition from the old to the new curriculum were less than anticipated. After two years of operation, we believe our present course sequences, content, and distribution of credit hours are a distinct improvement over those of the old curriculum. These two years of experience with the new curriculum have proven that it is possible to adapt courses of study to anticipated student needs, particularly when the percentage of entering students having predetermined ideas of what they intend to do after graduation is as high as it is in the College of Pharmacy. In this connection it may be stated that interviews with all entering students show approximately 80 per cent plan to become retail pharmacists; 15 per cent hope to secure positions in analytical and food and drug laboratories and in large pharmaceutical, biological, and chemical manufacturing concerns, etc.; about 4 per cent (approximately 50 per cent of men and women) expect to make hospital pharmacy their life work; and only 1 per cent who come to us have just a general predilection for pharmacy. These data have shown only a plus or minus 2 per cent variation over the past four years. Because the application-value is so apparent, the new senior professional electives, manufacturing pharmacy, hospital pharmacy, biological assay, etc., especially have provoked a great deal of enthusiastic interest among our students in these courses of instruction. In short, our new curriculum is fulfilling all of the expectations we had for it and we believe it will continue to do so.

Only a few students are as yet enrolled in the optional combined five-year course in Pharmacy and Business Administration leading to the degrees bachelor of science in pharmacy and bachelor of business administration. This may be accounted for in part by the fact that not until the new College of Pharmacy Bulletin for the years 1940-42 was issued March 14, 1940, had any detailed announcement been made of this course. The ultimate purpose of any and all combination courses of study is to make available training that will better equip graduates to function for the common good. The survey made in 1938 by the Minnesota State Board of Pharmacy showed that a number of small hospitals would welcome the opportunity to employ a person trained both in pharmacy and medical technology. Finances preclude them from employing both a pharmacist and a medical technologist. It was the general consensus of opinion that a person qualified to serve in a dual capacity could be paid a higher salary than that now offered to either one of the specialists and that such a person in the hospital could contribute greatly to the improvement of the medical service to patients. In view of these facts, I sincerely hope the administration will approve my efforts to effect an optional combined course in pharmacy and medical technology.

Faculty.—Most of the faculty are qualified to investigate the pharmacological actions of drugs, but some of the graduate students are not, and in order that their studies may be complete, it has been necessary for therapeutically active principles isolated by them to be examined pharmacologically either by members of our own faculty or by the staff of the Department of Pharmacology in the Medical School. The increase in the number of principles isolated from vegetable and animal drugs, together with the number of compounds synthesized in our laboratories, has been so appreciable during the last three years that it has been impossible for some of these studies to be concluded. We could not presume upon the time of pharmacologists in the Medical School to investigate all of our own products because they

are busily engaged with their own researches. It is one of the functions of our researchers not only to isolate these therapeutically active principles and prepare pharmaceuticals from them but also to test their efficacy as therapeutic agents and, therefore, if our contributions are not to be delayed, a full-time man, possibly an assistant or associate professor trained in pharmacology, should be added to our research and instructional staff.

Building and equipment.—The only major change made in the Pharmacy Building during the 1938-40 biennium was in the dispensing laboratory. Two prescription loges were constructed in such a way as to duplicate a first-class prescription department in a retail pharmacy. These are equipped with all the necessary files and registers and each one has a telephone connected with a master phone in the professor's office. In this way students get experience in taking prescriptions over the telephone.

In my report for 1936-38, the following statement was made: "More than ever, during the past biennium, have we realized the inadequacy and nonavailability of space in the present building for offices, lecture rooms, and laboratories. I believe it to be a matter of only a few years until it will become necessary to have an addition to the present building if we are not to be seriously handicapped in our efforts to give thorough undergraduate instruction and to contribute our share to the progress of the health sciences through research." Your attention is respectfully called to the fact that a new building was not requested but that an addition to our present quarters was anticipated as a necessity within a few years. The increase in the undergraduate enrolment for 1939-40 (approximately 11 per cent) and the tremendous increase of interest in research in pharmaceutical chemistry (twenty-one students now registered in the Graduate School with majors in pharmaceutical chemistry or pharmacognosy), indicate that the time has arrived for serious consideration to be given to this addition to our building. The wholly inadequate nature of the quarters for our researchers can best be appreciated by an inspection of the conditions under which the work is being done. Further, we do not know how the undergraduate laboratories and lecture rooms can accommodate the undergraduate students two years hence. Even though we are continuously exercising greater selectivity among those who would enter pharmacy, we are faced with limiting our enrolment to such an extent that well-qualified young men and women from Minnesota will be denied the opportunity of studying pharmacy at their own state institution because of lack of facilities.

It is fully appreciated that the expansion of the University through buildings must eventually stop somewhere. It may be stated, however, that if the proposed addition to our present building were approved, the physical plant of the College of Pharmacy would be adequate to provide for the training of pharmacists and pharmaceutical researchers for many years to come.

Library.—During the biennium, the Library Committee increased our yearly allotment for new books from \$180 to \$300. Approximately 182 bound and 200 unbound volumes were added during the biennium. It now has an approximate total of 5,900 bound and 2,700 unbound volumes, with an approximate value of \$30,255. During the past year, the library's value has been much enhanced to the undergraduate body and others through the increased number of hours of the librarian's services. An unofficial survey for 1939-40 shows approximately 8,000 undergraduate and graduate student hours in the library. Some of the older and lesser used books, now of historical interest only, have been transferred to the main University Library for safekeeping, thus making more space available for newer books. All new students are instructed in the use of the library. Exhibitions

of new books are held from time to time. Old and rare books are available to researchers.

With the help of the faculty, an interesting experiment has been carried out during the biennium. Our efforts to give instruction in the proper respect for, and care of, the library and to stimulate a desire to read among the students in the several undergraduate levels, have shown results that have been most encouraging. The experiment will be continued. More and more emphasis is placed on the fact that the library is a working department of the college and not merely a collection of books to be perused from time to time.

Student fees.—Because of an increase of about 60 per cent in the cost of crude vegetable and animal drugs, it was recommended, on January 18, 1940, to the Committee on Fees that the fee of \$1.50 per quarter for Pharmacognosy 55f, 56w, 57s be increased to \$2 per quarter. This recommendation was approved. All other fees remain unchanged.

Medicinal plant garden.—Information concerning the area covered by the medicinal plant garden, with its greenhouses, slat houses, laboratories, workrooms, sheds, etc., may be found in the biennial report of the College of Pharmacy, 1936-38, page 249 of the *President's Report*. The number of species and plants grown remains approximately the same. The need for repair to greenhouses is becoming acute.

The facilities of the garden are being used to study the effect of water culture upon the therapeutic activity of medicinal plants, the effect of certain chemicals, such as pyridine, piperidine, nicotinic acid, etc., upon alkaloid production, and the influence of colchicine and similar substances upon chromosome development and therapeutic activity. Experiments have been carried out during the past years on determining the hardness of peppermint and spearmint in Minnesota and the yield of volatile oil from these plants. Work has also been done on the development of methods of drying vegetable drugs and the study of the effects of these methods upon the therapeutic properties of such drugs. In this latter connection, digitalis, stramonium, and belladonna have been used. The shortage of ergot supplies from abroad has directed attention to a study of the medicinal value of locally produced drugs. The effect of world conditions on the supply of other drugs has also been evidenced in the rapid advance in prices for such articles and in the recent increased demand for University of Minnesota digitalis. The likelihood that this increased demand for drugs will continue, particularly in the case of digitalis, is anticipated by increased production of this drug the coming season.

Graduate study and faculty research.—Schools and colleges of pharmacy were originally established because the public demanded the protection and health service that well-trained, competent graduates could give it through the compounding and dispensing of medicines and through other public health activities. In Minnesota such service has been not only available for some time but also reasonably adequate to meet the demands made upon it. The quality of this professional service has greatly improved, especially during the past decade, and I am confident the improvement will continue. In addition to the demand for qualified graduates in pharmacy, there has also been a peremptory call for qualified pharmaceutical scientists to supply the needs of governmental agencies, industrial laboratories, and educational and research institutions. During the past ten years this demand has become especially pressing and as a result colleges of pharmacy have made every effort to provide facilities and personnel to offer graduate courses and to direct research. Minnesota has been in the front rank of these institutions and our

efforts have not been futile ones. The growth of graduate work in the College of Pharmacy is shown by the following tabulation:

	Number of Graduate Students
1935-36	9
1936-37	13
1937-38	19
1938-39	20
1939-40	21

During the past biennium, three graduate students received the degree, doctor of philosophy.

All members of the academic personnel of the College of Pharmacy have been working on at least one research project and there has been commendable publication.

Special lectures.—As in previous bienniums, we have attempted to give our students an opportunity to hear men who have distinguished themselves professionally by inviting a number of outstanding guest lecturers to appear before the student body. The great interest in these lectures is evidenced by large attendance.

Postgraduation study.—In order that the newer developments in professional pharmacy and related fields might be presented to practitioners of pharmacy in Minnesota, two pharmaceutical institutes were held in the Center for Continuation Study on February 6, 7, 8, 1939, and February 5, 6, 7, 1940, respectively. In 1939, 58 registered pharmacists enrolled in the institute, and 53 in 1940. Approximately 60 per cent of those in attendance were from rural districts and 40 per cent were practitioners in the Twin Cities. Inspectors for the Minnesota State Board of Pharmacy advise us that pharmacists throughout the state are enthusiastic about this type of postgraduation study and that they are putting into practice the information and newer methods presented to them at the institutes. This can only result in an improved pharmaceutical service to the physicians and the general public.

At the request of pharmacists in and around the Twin Cities, two extension courses were offered by the Extension Division in 1939-40. One of these courses dealt with retail store management.

Educational research in the College of Pharmacy.—During the biennium, the Committee on Educational Research has provided funds with which to carry on a research project begun in 1934. In addition to statistical data, the analysis of which will enable a comparison of the relative values of course and comprehensive examinations, other information from examinations of sophomores and seniors will make available to the administration and instructors such information as the strong and weak performances of students on the examinations together with possible implications for the improvement of instruction. It is proposed to continue this project another year, during which the curriculum of the junior year will be covered. By the collation of the studies covering the sophomore, junior, and senior years, it may then be possible to devise measuring instruments for use in intensive studies of innovating practices in methodology and in curriculum. Even though the end point of these experiments has not been reached, they have been of great value to the members of our faculty since the staff members have learned much about the construction of examinations, and the results to date have enabled them to allocate the time required for proper consideration of different phases of course content.

In addition to giving the predictive tests, formulated for the purpose of establishing a predicted honor point ratio for freshman students in the College

of Pharmacy, our school co-operated with the Committee on Predictive and Achievement Tests of the American Association of Colleges of Pharmacy and with eleven other member schools of the Association required all the freshman students to take a predictive test prepared by the committee. In general, the committee's test could be broken down into four parts, namely: psychology, English, mathematics, and general science. The rank of the students of the College of Pharmacy of the University of Minnesota in these four tests was: seventh (psychology), second (English), fifth (mathematics), and third (general science).

Pharmaceutical museum.—The income from the Frederick J. Wulling Trust Fund has enabled us to purchase several interesting historical pieces for the pharmaceutical museum. The cultural and educational value of the pharmaceutical museum to students, practitioners, and laymen is such that careful consideration should be given to its expansion and proper housing as soon as finances will permit.

Fellowships and scholarships.—The Minnesota State Pharmaceutical Association Graduate Fellowships of \$250 each, plus tuition, were held by Donald Buelow, Hutchinson, Minnesota, and Taito Soine of Virginia, Minnesota, during the year 1938-39. Mr. Buelow was the recipient of one of these fellowships for 1939-40; the other remained vacant because no qualified candidate applied. The winner of the Minnesota State Pharmaceutical Association Scholarship of \$105, 1938-39, was Herbert Cole, Rochester, Minnesota, and in 1939-40, Sam Levin, Minneapolis. Two fellowships from the United States Department of Agriculture, carrying between \$600 and \$700 per year, were held by Allen White and Curtis Waldon, both of Minneapolis.

American Council on Pharmaceutical Education, Inc.—On January 20, 1939, the College of Pharmacy of the University of Minnesota made application for accreditation by the American Council on Pharmaceutical Education, Inc. This college was inspected by the Committee of the Council in April, 1938. On January 4, 1940, we were advised that our college had been given full accreditation. Following its inspection, the council made recommendations for the improvement of building, library, laboratories, and personnel, and requested that the dean of the college report by July 1, 1940, on the progress that was being made to comply with these recommendations. In the reply to the report duly submitted, it is stated, "it is a pleasure to read reports of progress of this kind and I can assure you that the Council appreciates your efforts."

State Board examinations and placements.—The Minnesota State Board of Pharmacy conducted four examinations in the College of Pharmacy during the biennium; 119 persons made application for licensure examination. Of the 75 graduates of the College of Pharmacy of the University of Minnesota taking the examinations, 73 (96.05 per cent) passed and were licensed to practice pharmacy in Minnesota. Of those who were not graduates of our institution, 13 (68.42 per cent) passed the examinations. During the 1938-40 biennium, a large majority of our graduates secured positions in retail pharmacies, hospital pharmacies, etc., some weeks before graduation. As previously stated in this report, the demand for college trained pharmacists exceeds the supply, and indications are that this will be the case for some time. Graduates who have received the Ph.D. degree with a major in pharmaceutical chemistry, are in great demand as teachers and researchers in educational institutions and industry.

Respectfully submitted,

CHARLES H. ROGERS, *Dean*

COLLEGE OF EDUCATION

To the President of the University:

SIR: I herewith present the report of the College of Education for the biennium 1938-40.

Enrolment.—During the biennium the total number of students who are served annually at the undergraduate and graduate levels has remained about constant. The total is impressive and a comparison of the 1939 Summer Session enrolment with the academic year enrolment of 1939-40 is interesting. The main facts of distribution for the year 1939-40, which on the whole are also typical of the year 1938-39, are shown in the following tabulations:

	Summer Session Enrolment 1939	Academic Year Enrolment 1939-40	Grand Total
College of Education, undergraduates	1,657	1,899	3,556*
College of Education, master of education	(not given)	22	22
Graduate School majors in education	915	415	1,330*
Total in education	2,572	2,336	4,908*

* Does not exclude duplicates between Summer Session and academic year reports.

Unlike other colleges of the University, the College of Education serves more individuals during the summer sessions than during the academic year. For this, a growing summer school enrolment of majors in education in the Graduate School is in part responsible. This group is now more than twice as large as the group enrolled during the academic year. The undergraduate enrolment, on the other hand, which has been decreasing slightly during each summer, is 242 greater during the academic year.

The percentages of men and women are:

	Men	Women
College of Education, undergraduates	31	69
College of Education, master of education	86	14
Graduate School majors in education	66	34
Total (based on aggregate)	41	59

The tendency for men in education to do graduate work is relatively much more pronounced than it is for women. A decided increase has occurred in administration, in anticipation of a higher state standard of certification for superintendents and secondary school principals.

Outside of, and excluding, public health nurses, whose preparation has now been largely transferred to the Medical School, the enrolment of the College of Education has attained the highest point in its history.

Placement.—The percentage of placement has risen steadily until now more than four fifths of over 600 persons who annually receive undergraduate and graduate degrees in education get or hold a teaching position. Of the remainder, some have changed plans, some have married, others are ill, some have gone into other professions, and others have continued with graduate work—so that a rather small, decreasing proportion has failed in placement. In many fields, such as home

economics education, commercial education, full- and part-time school librarians, four-year graduates in elementary education, science, and band leaders, there is a distinct undersupply. A strong oversupply continues in the social studies and to a less extent in English. In all fields, of course, there is an undersupply of those competent persons who measure up entirely satisfactorily on all qualifications. Many who prepare for secondary school teaching should be urged to prepare for elementary school work. As long as so many of the more capable high school graduates never come to college, while many less capable persons have to be certificated to fill vacancies, the problem of guidance, recruitment, and selection is not solved. The principal tasks of a complete guidance program are to direct many more boys and girls of superior ability toward college and into teaching, to secure state scholarships for needy students of outstanding abilities and to perfect pre-education guidance in the College of Science, Literature, and the Arts toward the teaching fields where the needs are greatest and away from fields where there is an oversupply. Only as more of the superior students actually plan to enter teaching, can considerable numbers of inferior persons be eliminated. Some progress in co-operative guidance among colleges has been made and more should be encouraged. The co-operating activities and influence of the Student Personnel Co-ordinator and the Testing Bureau have been most helpful during the last year.

Summary of activities.—Among the major enterprises of the biennium which may be considered as involving progress, the following should be mentioned:

1. *Five-year curriculum.*—Additional five-year curricula leading to the M.Ed. degree have been authorized in Music Education, Art Education, and in Industrial and Vocational Education, respectively. In connection with these a program of one-quarter internships during the fifth year has been authorized.

2. *New staff members.*—A position in the field of the philosophy of education has been created, an instructor added in Agricultural Education, and a full-time addition made in Nursing Education.

3. *An experiment in nursing education.*—With the help of federal subsidy to the extent of 50 per cent of the cost of the professional aspects of the program, the Medical School, the School of Nursing, and the College of Education have undertaken, with the authorization of the State Department and the United States Office of Education, a program of education of future teachers for the schools for nurses in local hospitals. It is hoped that this experiment may be influential in further professionalization and upgrading of the education of nurses in the hospitals of the state and that the experiment may demonstrate the value of better preparation of teachers of nurses for the country as a whole. Many instructors in this area still are not college graduates and many have not studied the professional aspects of their work as teachers.

4. *Subject-matter conferences.*—Through the co-operation of the College of Education, the College of Science, Literature, and the Arts, the State Department of Education, and professional organizations of the state, a series of eight subject-matter conferences, annually, for teachers in service have been inaugurated after some preliminary experimentation which was done successfully three years ago. These are intensive conferences lasting through the major part of two full days, which concern themselves with current problems, issues, and educational trends of subject matter and instruction in public school education. From 1,200 to 1,500 teachers of the high school level in Minnesota attend annually.

5. *Institutes.*—Through continued co-operation of the College of Education with the Center for Continuation Study and with the assistance of the State Department of Education, the teachers colleges, and some of the liberal arts colleges, seven or eight institutes are held each year in the newer areas of public education. They have related to radio education, visual education, curriculum reconstruction, the activity unit, community recreation, student teaching, personnel and guidance, music education, dramatics, and other areas. Only a few of the fifteen or twenty institutes requested annually by interested people could be authorized.

6. *The Annual Minnesota Conference on Teacher Education.*—These conferences have grown in size until further increase in the numbers who attend may sacrifice the plan of informal round-table discussion on current issues and problems that has met with such general approval. The 1939-40 conference was attended by 146 representatives from seven states of this North Central area.

7. *University Short Course and Schoolmen's Week.*—This biennium the conferences and lectures of the Short Course have emphasized the reconstruction of the secondary school curriculum, with particular reference to the needs of that 80 per cent of the student body which does not take secondary education as a prerequisite to college entrance but rather as a cultural and vocational preparation for life in general. The organizations which co-operate in this series are the Minnesota Council of School Executives, the Minnesota Secondary School Principals' Association, the Association of Minnesota Elementary School Principals, the Supervisors and Directors of Instruction, the Minnesota Society for the Study of Education, and the State Department of Education. The three- and four-day sessions are attended each year by a large majority of Minnesota superintendents, principals, and supervisors.

8. *Alumni follow-up.*—An expansion of a program of visitation of alumni-teachers in Minnesota schools to study their success, their problems, and the effectiveness of our program of teacher preparation has occurred. Seventy-six schools were visited in 1939-40. The reports from the field are consolidated and presented to the faculty. In this activity instructors from subject-matter fields as well as from education have co-operated. This is bringing our university staff closer to the program and problems of the schools themselves.

9. *The Music Festival.*—The College of Education, the Department of Music, and the Minnesota Music League again held the annual Minnesota Music Festival and Music Contest. Over 6,500 Minnesota high school and grade pupils came to the University for two days to participate as groups and as soloists in vocal and instrumental numbers. The undertaking is a big one, involving 118 schools of the state. Only the facilities of this University, with its large auditorium and other small auditoriums, can take care of the enterprise. The movement is doing a major part to increase interest in secondary school music and to improve its quality. The contest feature is giving way to an evaluation or classification of all participants according to the quality of production.

10. *The work of committees.*—A procedure in the College of Education administration, which has become well established, is for problems, studies, and even the administration of such matters as comprehensive examinations, five-year curricula, etc., to be referred to standing committees, and to special committees of which the dean may be, ex officio, a member but which as a matter of fact he attends only occasionally. In committees, all matters receive a more careful study than is possible in the faculty meetings alone or by the administration office itself. Matters involving new policies are always referred to the faculty and to the dean for approval and action. The process aims to be democratic; it is often experimental and frequently objective and analytical in approach. The faculty has been successful in an increased use of these procedures during the biennium. Particularly active during this biennium have been: the Curriculum Committee, the Committee on Graduate Work, the Committee on Guidance and Personnel, the Committee on the Reorganization of the Junior Sequence in Education, the Committee on Five-Year Curricula. Many other standing and special committees might well be named for their contributions to the life and work of the college, not least important of which would be the social committee of the faculty which has aimed to promote fellowship among faculty and students.

11. *Committee on Guidance and Personnel.*—A special investigation of the problems of the selection and guidance of candidates for teaching who are to be prepared for certification has been undertaken by a large special committee of fourteen headed by Professor C. Gilbert Wrenn. The incorporation of such elements as the sophomore culture test, college aptitude tests, speech tests with remedial guidance, and careful insistence upon the achievement of scholastic attainments before practice teaching, have been authorized upon its recommendation.

After discovery, through careful analyses, that the comprehensive examinations in the subject matter of the major, which have been used for a number of years as prerequisites for practice teaching, did not select better than the present standards of a four-year C average and of the C-plus average in the major

itself, they were abandoned. Additional examinations of the sort listed above are being added to supplement grades. Comprehensive examinations which are being developed will also be used more extensively for the selection and guidance of graduate students.

Our trend will be to develop, through experimentation, a more valid, broader, functional program, all elements of which it is hoped may be more clearly demonstrated to contribute something. All data are being preserved in order that their relation to later success in teaching may be studied.

12. *Research and national leadership.*—The faculty of the College of Education has always recognized a responsibility to investigate educational problems systematically, to participate in national and state movements, and to publish research. Several of the staff are now editors for textbook series in education. Others hold important offices in learned societies that are interested primarily in research. A considerable number of important books are continually in preparation.

There is a distinct trend of the staff to be more critical of its own research and of the research of others, with frequent criticism of the pressure for quantity in education. No doubt a movement for less quantity and more quality is desirable after three decades of intensive, systematic investigations of problems. The pressure for publication during these decades has resulted in a mass of unselected professional literature which is as yet only partially evaluated, digested, and absorbed.

The standards of most graduate theses in education at Minnesota, we believe, are high, as compared with theses accepted elsewhere; the adoption of Plan B, without thesis, for the rank and file of subject-matter teachers should result in higher standards for the research program under Plan A. At the same time, Plan B offers greater scope of professional preparation which will insure more practical values for public school service itself to an increasing number, without affecting adversely the research program of the Graduate School that should be geared to the requirements of higher education.

13. *The laboratory schools.*—Available to students in education are three laboratory schools—the University High School, the Tuttle Elementary Demonstration School, and the Nursery-Kindergarten School of the Institute of Child Welfare. For research purposes the Galtier School of St. Paul is also available to the staff. In each case the practices and policies are such that procedures are based as far as possible upon a sound modern philosophy of education, upon best practices of promise which are developed empirically, upon newer practices of promise based upon the findings of research and procedures which best seem to meet the needs of the state. Curricular development has been prominent during the biennium.

The University High School has been alive to problems of the secondary schools and has made notable progress. Demonstrated needs have led to the addition of typing, Spanish, Greek, general mathematics, journalism, and speech. The Science Department has been experimenting with a one-year fusion course of physics and chemistry. Steps have been taken toward the introduction of a six-year integrated science sequence.

A distinct contribution to secondary curriculum development has been an extensive integrated unit on the home which was developed co-operatively by the Departments of Industrial Education, Home Economics, and Art, respectively, involving home planning, home construction, exterior designs, interior furnishings, landscape development, etc.

The health service to pupils and their health instruction itself has been improved in a number of ways; better opportunity has been provided for student teachers to participate in phases of the program. This enlarged program has added more individualized medical examinations with better reports to parents and better school records; it has incorporated health units in general science, home economics, social studies, and physical education. It was made possible by the appointment of a school nurse and through the activity of a faculty committee on health education.

A number of activities of the University High School might be described in detail. Among those which can only be mentioned, however, are: the general student-teacher conferences for co-ordination of the student body and orientation in special professional matters, increase in the use of the University High School for demonstrations for education classes involving theory, the development of subject-

matter clubs in the state, preparation of a manual for supervisors of student teaching which is to be published soon, development of a new salary schedule for supervising teachers of the Twin Cities who provided this service for 153 of our students, more direct training for extracurricular activities, and a personnel laboratory for student teachers based upon a duplicate set of records used by the staff of the University High School. The University High School as evaluated by any criterion is outstanding in the ability and achievement of its graduates and in the caliber of its faculty.

The Tuttle School demonstration faculty includes some of the best teachers that the Minneapolis public schools can provide. A sanely progressive program incorporates in part the modern practices of the activity unit which have promise, wide use of visual education, radio education, much diagnosis and remedial work, and the adjustment of the school to individual differences in ways that have stimulated educational thought throughout the state. Particularly valuable and appreciated have been the demonstration programs of in-service teachers during the summer sessions. Some of the units which have been developed will be published soon. A particularly important contribution to our area has been the "workshop" type of course offered during each summer as a full-time program of observation, of group and individual research projects by groups of 50 experienced elementary teachers under the leadership of an expert on instructional matters, on child growth, and on the learning process, and with the co-operation of the principal, several supervising teachers, and members of the university staff.

Outstanding also in contribution, because motivated by a thoroughly scientific approach to child growth and development, have been the Kindergarten and the Nursery School of the Institute of Child Welfare which are open to the College of Education students preparing for nursery school, kindergarten, and primary work. The scientific atmosphere of the institute, the opportunities for the observation of child activities, the publications, and the personnel are of inestimable value to the College of Education.

14. *The Bureau of Educational Research.*—The Bureau of Educational Research has sponsored a number of research resource enterprises such as the classification and assembly of a test and examination library, the assembly of a rather complete file of catalogs and bulletins of colleges, teachers colleges, and liberal arts colleges. It has given assistance and conducted research in connection with qualifying examinations, in assembling and compiling bibliographies in higher education, in teacher education, and in collecting titles of studies recently completed. The following studies are in progress:

1. The development of a new type examination in social studies by Horace T. Morse.
2. A study of supervisory practices in student teaching by W. S. Carlson.
3. A follow-up study of University High School graduates by C. W. Boardman.
4. A study of comparative scholastic aptitudes of students in the College of Education and those in the senior division of the College of Science, Literature, and the Arts by Margaret Nelson.
5. Compilation of personnel data of students in the College of Education by the Committee on Examinations, C. W. Boardman, chairman.

A series of research bulletins which are based on research and are specifically designed to be of value to teachers and to administrators is being completed. Among these are:

1. A pamphlet by W. W. Cook discussing what the ordinary classroom teacher should know about the child and how to secure and interpret the information.
2. Two pamphlets by W. W. Cook covering problems of classification and promotion related to the individualization of instruction, as well as to problems of organization.
3. A series of bulletins dealing with individualization of instruction in specific fields by Leo Brueckner, Guy Bond, Josephine Foster, and others.

Other pamphlets designed to summarize the widely scattered findings of research which may serve as clues to the improvement of practices and policies have been authorized. One of these is in the field of teacher education.

15. *The curriculum laboratory.*—The curriculum laboratory now occupies two rooms in the Educational Seminar suite on the third floor of the University Library. Over 7,000 items of new courses of study, new texts and references, new units of instruction, and general reference books have been added for the use of

graduate students, of teachers in service, and of committees on curriculum development and reorganization. In addition, the facilities of the whole library and other collections are immediately available.

Needs of the College of Education.—The congestion of the College of Education and its needs for certain facilities of space, laboratories, and clinics promises to be relieved by the assignment to it of Shevlin Hall and of additional space in Burton Hall, Eddy Hall, and Jones Hall. Particularly relieved will be the congestion in the University High School by the assignment to it of much of Shevlin Hall. Valuable will be the addition of an administration and statistical laboratory, a children's clinic, a student-teacher conference room, a large room for special demonstration classes, and the reorganization, modernization, and equipment of a larger and unified suite of administrative offices.

1. *A program in the distributive occupations.*—The development, in co-operation with the State Vocational Board and the School of Business Administration, of a federally subsidized program in the distributive occupations is needed. This will do for stores, co-operatives, and general consumer education, what has been done for other areas by federally subsidized home economics education, agricultural education, industrial education, and nursing education. Minnesota and Iowa are now the only two of twelve states in this North Central area without such a program for the regular year. A beginning has been made in the Summer Session of 1940 at Minnesota. The Twin Cities around the University offer to a university one of the best centers in the nation for consumer education, research, the upgrading of distributive occupations through more and better education on merchandising, marketing, fashions, and salesmanship, for store clerks, salesmen, and buyers, which must now be projected down into the secondary school program. It is a large vocational area that is federally supported with relatively more aid than some of the others.

2. *Library facilities for Summer Session students.*—Better reading facilities during the Summer Session are imperative for enrollees in education who exceed in number those of the regular year.

3. *Critical study of the program of studies.*—A careful scrutiny of the program of courses and curricula in education has begun, but is only partly accomplished as yet. Undergraduates have now been separated from graduates in many classes. No doubt there are duplications to be eliminated, a few new courses to be added, particularly general courses for the nonspecialist in a field. The whole offering needs examination again from the standpoint of the available research content related to the needs of the profession.

4. *Student and alumni faculty relations.*—The undergraduate student body is large, numbering during any one quarter more than 1,300 students. A major problem is the promotion of closer contacts between a busy faculty on the graduate level and a widely scattered undergraduate student body. A similar need exists in our relations and service to the alumni group. As yet rather informal approaches to larger alumni activity have only begun.

5. *Experimental elementary school.*—Extension upward through grades one to six of the research program of the Institute of Child Welfare in co-operation with the College of Education should be seriously considered. No extensive experimentation and research are now possible in facilities at this level, which are entirely off-campus. Many major colleges of education in this area do have them.

6. *Guidance.*—There is badly needed a director of student personnel and guidance as part of the administrative organization of the College of Education. At present only one half of the time of the assistant to the dean is devoted to this work, which would crowd a full-time person in so large a college. The daily and seasonal pressure of student conferences and the fact that one tenth of the students are continually on probation, necessarily and inevitably deflect the time of the assistant to the dean which is needed on the numerous other, not always equally important but yet very major, activities of the college.

Still closer co-ordination of the guidance program of the Junior and Senior Colleges of the College of Science, Literature, and the Arts and that of the College of Education should be cultivated. Elimination of an antagonism toward teaching

is essential especially on the part of a considerable group of students during the pre-education period, who accept teaching reluctantly as their only "life hope." Enthusiasm for a profession which is basic in passing on the social heritage, in developing the personality of pupils as future citizens of the nation, in promoting social progress, and in developing ideals of democratic living as the American way of introducing ethics into government and life in general is much needed. These, it seems to me, are the functions of education and the objectives of the teaching profession which should induce capable prospective candidates to seek membership in it with enthusiasm.

Respectfully submitted,
W. E. PEIK, *Dean*

SCHOOL OF BUSINESS ADMINISTRATION

To the President of the University:

SIR: This report covers the major activities of the School of Business Administration for the biennium 1938-40.

Curriculum.—There have been no major changes in curriculum during the past two years. Considerable attention has been devoted to the combined programs with other divisions of the University that were instituted during the preceding biennium. The first classes graduating from the engineering-business curriculum were all placed in desirable positions in manufacturing establishments. From reports already received it is evident that these combined courses are fulfilling a definite need. In fact, the demand was so great that more graduates could have been placed than were available.

The curriculum as a whole is being subjected to a thorough analysis by two faculty committees. One is studying the professional offerings in business, while the other is concerned with the courses in the broad field of economics. The purpose of both committees is to evaluate the entire program in terms of the objectives of the school.

The committee on professional business courses has obtained considerable material from alumni of the school, including information on their work histories, and an appraisal of the training program based on their experience. A further survey of the opinions of employers of business school graduates in different parts of the country was made. This provided a body of material representing the opinions of business executives on the training programs here and in other collegiate schools of business. Additional information was obtained from governmental agencies, including data on civil service requirements for positions involving business training. The committee is not yet ready to report, but it is clear that there will be significant adjustments growing out of this study. Perhaps the most important result of this study will be a continuing appraisal of the work of the school by the faculty and the business community, which should keep the training program adjusted to the needs of modern business.

The committee on the courses in economics is recommending the establishment of a sequence leading to the degree of bachelor of science in economics. This program is aimed to prepare professional economists for service in governmental departments and in private business. There are several departments in the federal government and some state departments that are in need of the theoretical economic analysts. Their training should be more generalized in character than that of the business executive. At present there is no provision made either in the professional courses in business or in the College of Science, Literature, and the Arts for the training of professional economists. In the past, students desiring this type of training were registered in the University College. With the establishment of the proposed curriculum within the School of Business Administration professional status of the economic analyst will be given definite recognition.

The faculty has voted to discontinue the comprehensive examination required of graduating seniors which was introduced in 1934 on an experimental basis with the understanding that at the end of five years the results would be subjected to a critical review. The purposes of the comprehensive examination were (1) to serve as a means of integrating the knowledge acquired in the various subjects and fields in the curriculum; (2) to provide an additional means of evaluating

attainment of students; (3) to provide a means of guidance for students in their selection of fields of work subsequent to their college courses. The committee which reviewed the results of the five-year experiment was of the opinion that the comprehensive examination did not fulfill any of these objectives or add any significant information to that already available through the grades in individual courses. It was recommended, however, that further study be made of the possibility of providing for the integration of the different fields of study represented in the core group courses, and this investigation is being carried forward.

The faculty has been concerned for a number of years with the problem of student English. An attempt was made to meet this problem through the introduction of a special course in Report Writing. Students have been required to submit an extended report which was graded primarily on the basis of clarity of expression. There appears to be no relationship between the reports submitted in this course and the other written work of the student. The specialized course in Report Writing, therefore, does not appear to be the solution of the problem of student English.

As a substitution for the specialized course the faculty voted to recommend that in each sequence provision be made for at least three reports of substantial length calling for independence in organization and thought. It was recognized that the evaluation of these reports was likely to place too great a burden upon an instructor who was carrying a full-time instructional schedule. To meet that situation it was recommended that special provision be made in staff assignments to provide adequate critical reading of all of the student reports. Under present budgetary limitations it would be extremely difficult to carry out this faculty recommendation. There is no question as to the importance of the problem presented. Perhaps a generalized attack on this problem, from the standpoint of the University as a whole, could be made.

Research.—A considerable amount of research has been carried forward during the past two years in spite of a definite limitation of funds for this purpose. The *Financial and Investment Review* has included the results of a number of research projects carried on by individual members of the staff. The *Index on Cost of Living in the Twin Cities*, and the *Index on Business in the Northwest*, both prepared by Professor Richard L. Kozelka, have also been published regularly. A special study on industrial trends in Minnesota prepared under the direction of Professor Kozelka under the auspices of the Minnesota Resources Commission was issued in 1939. *Revenue Receipts, Governmental-Cost Payments, and Public Debt of State and Local Government in Minnesota, 1937* was prepared under the direction of Professor Arthur Borak for the Minnesota Resources Commission. An extensive study of income in Minnesota is being made under the direction of Professor Roy G. Blakey also for the Minnesota Resources Commission.

In response to a request from a committee of St. Paul citizens an application for funds to conduct a study of employment and unemployment in St. Paul was presented to and approved by the Rockefeller Foundation. The study will be under the joint direction of Professor Donald G. Paterson and Professor Dale Yoder.

Conferences.—The Second Annual Minnesota Bankers' Conference was conducted at the Center for Continuation Study, October 23-27, 1939. Members of the staff and several outside specialists took part. Over two hundred bankers coming from all parts of the state were in attendance and took an active part in the discussions.

Members of the staff also co-operated with the Institute on Placement Services

in Colleges and Universities in November, 1939. An Institute on Employment Security was also conducted in co-operation with the State Division of Employment and Security and the Social Security Board.

At the dedication of Vincent Hall in October, 1938, conferences were conducted in co-operation with representatives in the fields of banking, accounting, retail merchandising, personnel administration, and general office management. These conferences afforded an opportunity for the interchange of ideas and the development of cordial relations between the school and the business community.

Registration.—There were 801 students registered in the School of Business Administration during 1938-39 as compared with 795 in 1937-38. This was the first year in which the enrolment remained practically constant. In 1939-40 there was a slight decline to 763. This is due in part to the strengthening of the standards of the school. Most of the pressing problems have been brought about by a constantly increasing enrolment, giving rise to large class sections and increasing the instructional load. If the registration for the past two years indicates a possible leveling off in enrolment, it will afford some relief to these problems.

Respectfully submitted,

R. A. STEVENSON, *Dean*

GRADUATE SCHOOL

To the President of the University:

STR: As acting dean I submit the report of the Graduate School for the biennium 1938-40.

Enrolment and degrees.—From an enrolment of 372 in 1919 to 2,881 in 1932, there was an annual increase in enrolment in the Graduate School, followed by a decrease of 20 per cent—to 2,303—in 1934. From 1934 to 1940 there was a steady annual increase to 3,981 (the peak enrolment) in 1940—an increase of 1,677, or 72 per cent for the period.

TABLE I. GRADUATE SCHOOL ENROLMENT AND DEGREES CONFERRED,
FOR THE LAST YEAR OF EACH BIENNIUM, 1930 TO 1940*

Year	Enrolment	Doctors of Philosophy	Masters	Engineers	Total Degrees
1930	2,225	67	198	2	267
1932	2,881	70	246	2	318
1934	2,303	79	216	2	297
1936	2,790	80	230	2	312
1938	3,299	79	349	1	429
1940	3,981	114	444	1	559

* Data for preceding years are summarized in the *Report of the President, 1936-38*, p. 265.

The increase in the number of degrees conferred annually has kept pace with the increase in enrolment.

Between 1920, when 8 Ph.D. degrees were conferred, and 1940, when 114 were conferred, the number granted annually constitutes approximately 2.5 per cent of the annual enrolment; the range being from 1.3 per cent in 1920 to 3.4 per cent in 1935. In 1940, 114 Ph.D. degrees were conferred, the largest number in the history of the Graduate School. This is 2.8 per cent of the enrolment for 1940.

The number of Master's degrees conferred annually over the same period constitutes approximately 10 per cent of the enrolment, the range being from 7.6 per cent in 1935 to 11 per cent in 1940.

In 1937, the first year the Master's degree was conferred under Plan B, the ratio of the number conferred under Plan A to the number conferred under Plan B was approximately 3 to 1; in 1938 the ratio was approximately 2 to 1; in 1939 it was 1.5 to 1; and in 1940 the number conferred under Plan A was only slightly in excess of the number conferred under Plan B.

During the biennium all of the graduate groups conferred the Master's degree under Plan B. Approximately 65 per cent of the Master's degrees conferred under Plan B were in education, philosophy, psychology, and child welfare; ap-

proximately 13 per cent in the social science group; 7 per cent in the agriculture group, in the mathematics and physical science group, and in the language and literature group, respectively. In the medical group only eight Master's degrees under Plan B were conferred and all of them were in preventive medicine and public health.

In accordance with the action of the Executive Committee relative to any curriculum leading to a professional Master's degree, four curricula have been approved and the colleges concerned authorized to confer the appropriate professional degrees. They are:

1. Master of forestry, administered by the College of Agriculture, Forestry, and Home Economics.
2. Master of education in art education.
3. Master of education in music education.
4. Master of education in industrial education.

The last three named and the master of education in physical education, approved in 1938, are administered by the College of Education.

In approving these curricula the Executive Committee set up certain general requirements, such as proportion of professional courses, amount of credit in Senior College and graduate courses, with the understanding that any later modification of the curricula involving these requirements should be approved by the Executive Committee of the Graduate School.

Selective admission.—A subcommittee considered the problem of selective admission of graduate students and recommended to the Executive Committee that the Graduate Record Examination, constructed and administered by the Carnegie Foundation for the Advancement of Teaching, be given to all graduate students entering the University in October, 1940. Following a conference with Mr. W. S. Learned, the Executive Committee authorized the acting dean to invite Mr. Charles R. Langmuir, a representative of the Carnegie Foundation, to come to the University to discuss the Graduate Record Examination with the graduate faculty. Mr. Langmuir came on April 25, 1940, and presented some results of the examination obtained at Columbia, Harvard, Princeton, and Yale universities. The graduate faculty present were asked to forward, in writing, to the acting dean their reactions to the proposed examination. The response from the faculty, favorable or unfavorable, was, indeed, conspicuous for its absence.

The Executive Committee then voted to request the Carnegie Foundation to administer the tests to all entering graduate students at a date in October, 1940, to be arranged. They voted also to include in the testing program the Analogies Test for Graduate Students arranged by W. S. Miller, and to allot \$1,000 from the Graduate Research Fund to study the results of the Graduate Record Examination and the Analogies Test. The Carnegie Foundation agreed to give the Graduate Record Examination to all entering graduate students for two years, 1940 and 1941, and to report the results to each graduate student and to the Graduate School office without cost to the University. The whole procedure is experimental, looking forward to the possible use of the test results as one factor in improving the selection of graduate students.

Statistical series.—Tables II to VI are self-explanatory, and continue series of data presented in these biennial reports.

TABLE II. GRANTS AND FUNDS FOR RESEARCH, 1938-40

Grant	Number of Grants	Amount Granted	Amount Spent
1938-39			
Fluid research	10	\$ 5,422.00	\$ 4,598.99
Graduate research	54	16,833.00	15,637.99
Medical research	52	26,360.00	25,284.30
Totals	116	\$48,615.00	\$45,521.28
1939-40			
Fluid research	None	None	None
Graduate research	76	\$20,532.48	\$18,287.79
Medical research	49	20,550.00	19,622.26
Totals	125	\$41,082.48	\$37,910.05

TABLE III. GRADUATE STUDENTS ACCORDING TO DEGREES
FOR WHICH THEY HAVE APPLIED

Degrees	1938-39	1939-40
Master of arts	1,571	1,635
Master of science	1,009	1,057
Professional engineering degree	1	0
Doctor of philosophy	737	812
No degree desired	405	477
Totals	3,723	3,981

TABLE IV. CLASSIFICATION OF GRADUATE STUDENTS ACCORDING
TO RANK ON STAFF

Rank	1938-39	1939-40
Professor	0	0
Associate professor	3	3
Assistant professor	13	9
Professorial lecturer	1	0
Instructor	130	120
Teaching fellow	72	69
Assistant	351	400
Mayo Foundation fellow	392	395
Fellow	20	24
Scholar	0	0
Totals	982	1,020

TABLE V. GRADUATE STUDENTS ACCORDING TO AMOUNT OF WORK FOR WHICH THEY HAVE REGISTERED

Registrants	1938-39		1939-40	
	Men	Women	Men	Women
Academic Year:				
Registered full time	652	214	711	220
Registered part time	815	397	870	380
Registered full time, Mayo Foundation	376	15	380	10
Totals (men and women combined)	2,469		2,571	
Summer Sessions of 1938 and 1939				
Registered full time	575	312	735	418
Registered part time	425	357	426	301
Totals (men and women combined)	1,669		1,880	
Totals academic year and Summer Session	2,843	1,295	3,122	1,329
Less duplicates	275	140	317	153
Net totals	2,568	1,155	2,805	1,176
Net totals (men and women combined)	3,723		3,981	

TABLE VI. FOREIGN STUDENTS REGISTERED IN THE GRADUATE SCHOOL

Country	1938-39	1939-40	Country	1938-39	1939-40
Argentina	1	0	Japan	0	1
Australia	2	1	Lithuania	1	0
Austria	1	1	Moravia	0	1
Belgium	1	0	New Zealand	1	2
Brazil	1	1	Nicaragua	1	1
Canada	66	75	Norway	2	3
Chile	1	0	Panama Canal Zone	0	1
China	34	27	Philippine Islands	5	8
Colombia	3	2	Poland	1	0
Czechoslovakia	3	1	Puerto Rico	0	1
England	2	1	Russia	1	1
France	2	2	Scotland	5	4
Germany	7	2	South Africa	1	1
Hawaii	2	5	Switzerland	0	1
Holland	0	1	Syria	1	1
Hungary	1	0	Turkey	0	1
India	2	1			
Ireland	1	1	Totals	150	150
Italy	1	2			

Respectfully submitted,

W. S. MILLER, *Acting Dean*MAYO FOUNDATION FOR MEDICAL EDUCATION
AND RESEARCH

Herewith is a brief summary of the work in graduate medical education and research of the Mayo Foundation from July 1, 1938 to June 30, 1940.

Faculty.—The number of members of the faculty of the Mayo Foundation is shown in Table I.

TABLE I. FACULTY CLASSIFICATION, MAYO FOUNDATION

	Professors	Associate Professors	Assistant Professors	Instructors	Total
Number on duty, June 30, 1938.....	41	40	45	31	157
Promotions	3	5	7	.....	..
New appointments .....	.....	.....	1	22	23
Resigned	1	2	1	8	12
Deceased	1	.....	.....	.....	1
Emeritus status	2	.....	.....	.....	2
Number on duty, June 30, 1940.....	42	40	47	38	167

Applications for fellowships.—During 1938-39, 2,042 physicians or medical students made written or personal inquiries concerning graduate work in the Mayo Foundation, and during 1939-40, 2,170 made similar inquiries. These numbers may be compared with 1,803 for 1937-38.

During 1938-39, 1,207 formal applications, and during 1939-40, 1,325 applications were received, and during 1937-38, 1,021. Of these, 614 were completed during 1938-39 and 616 during 1939-40.

An analysis of the 186 applications on file July 1, 1938, and of the completed formal applications received during the years is shown in Table II.

TABLE II. ANALYSIS OF FORMAL FELLOWSHIP APPLICATIONS RECEIVED FROM JULY 1, 1938 TO JUNE 30, 1940, MAYO FOUNDATION

Field	On File July 1, 1938	Received		Nominated	Declined	Open June 30, 1940
		1938-39	1939-40			
Surgery	85	252	257	69	486	39
Anesthesia	7	6	6	3	15	1
Neurosurgery	2	4	6	3	7	2
Obstetrics and Gynecology	8	36	34	4	57	17
Ophthalmology	3	13	18	4	24	6
Orthopedic Surgery	5	21	24	9	33	8
Otolaryngology and Rhinology.....	3	14	9	4	19	3
Plastic Surgery	2	4	5	3	8	.....
Proctology	6	9	6	2	19	.....
Urology	7	26	20	7	44	2
Total surgical specialties.....	128	385	385	108	712	78
Internal Medicine	33	134	151	60	219	39
Dermatology and Syphilology.....	1	14	8	7	15	1
Neurology and Psychiatry	1	8	7	4	10	2
Pediatrics	2	12	6	5	14	1
Physical Medicine	1	2	2	1	4	.....
Total medical specialties	38	170	174	77	262	43
Dental Surgery	5	12	14	3	24	4
Radiology	8	27	17	6	44	2
Totals	13	39	31	9	68	6
Biochemistry	1	2	3	2	3	1
Biophysics	1	.....	.....	.....	1	.....
Nutrition	1	.....	.....	.....	1	.....
Pathology	3	16	21	11	27	2
Physiology	1	2	2	1	4	.....
Total laboratory specialties.....	7	20	26	14	36	3
Grand totals	186	614	616	208	1,078	130

An analysis of the fields in which fellows in the foundation are majoring is shown in Table III.

TABLE III. MAJOR FIELDS OF MAYO FOUNDATION FELLOWS

Major Field	Fellows in Foundation July 1, 1938	Fellows Who Left or Transferred to Other Fields		Fellows Who Came or Transferred from Other Fields		Fellows in Foundation June 30, 1940
		1938-39	1939-40	1938-39	1939-40	
Surgery	100	26	35	34	29	102
Anesthesia	9	2	4	2	2	7
Neurosurgery	6	1	6	4	2	5
Obstetrics and Gynecology	11	2	2	2	2	11
Ophthalmology	8	3	1	2	1	7
Orthopedic Surgery	10	3	4	7	6	16
Otolaryngology	8	1	3	4	1	9
Plastic Surgery	3	1	1	1	0	2
Proctology	6	2	1	1	0	4
Urology	12	5	3	5	3	12
Total surgical specialties	173	46	60	62	46	175
Medicine	76	23	28	33	31	89
Dermatology	4	0	2	4	2	8
Neurology	11	3	3	1	1	7
Pediatrics	11	8	2	4	2	7
Physical Medicine	2	0	1	2	0	3
Total medical specialties	104	34	36	44	36	114
Dental Surgery	5	1	2	2	2	6
Radiology	11	2	6	5	4	12
Totals	16	3	8	7	6	18
Bacteriology	3	1	0	0	0	2
Biophysics	1	1	0	0	0	0
Biochemistry	1	0	1	2	1	3
Cytology	0	1	0	1	0	0
Nutrition	1	1	0	0	0	0
Parasitology	2	1	0	0	0	1
Pathology	15	8	5	3	7	12
Physiology	2	3	2	4	1	2
Total fundamental fields	25	16	8	10	9	20
Grand totals	318	99	112	123	97	327

Twelve representatives of other institutions and organizations (the Army, the Navy, and the United States Public Health Service, Commonwealth Fund, etc.) did work of a definite research character or clinical nature and are included in Table III. Many fellows and other graduate students of other organizations were on duty for short periods in the foundation but were not registered.

Medical schools of last graduation of the students registered during the biennial period include nearly all American and Canadian medical schools with a goodly number from foreign schools.

Graduates.—One hundred thirty-one graduate degrees were granted to fellows of the foundation during the period covered in this report (Table IV).

TABLE IV. GRADUATE DEGREES GRANTED, BY FIELDS, MAYO FOUNDATION

Field	Master's	Doctor's
Surgery	37	1
Anesthesia	5	.....
Neurologic Surgery	2	.....
Obstetrics and Gynecology.....	6	.....
Ophthalmology	4	.....
Orthopedic Surgery	6	.....
Otolaryngology and Rhinology.....	2	.....
Plastic Surgery	1	.....
Proctology	3	.....
Urology	4	.....
Medicine	32	1
Dermatology and Syphilology.....	3	1
Neurology and Psychiatry.....	4	1
Pediatrics	3	.....
Physical Medicine	1	.....
Radiology	3	.....
Bacteriology	2	1
Pathology	3	.....
Experimental Surgery	2	.....
Nutrition	1	.....
Dental Surgery	2	.....
Totals	126	5

Lectures.—The members of the faculty of the Medical School gave a series of exchange lectures in the foundation, and members of the faculty of the foundation gave exchange lectures at the Medical School during the period.

Publications.—In addition to the twelve books published by members of the faculty during the period of this report, 1,350 papers embodying results of research or clinical studies were published by members of the faculty and the fellows of the foundation.

Respectfully submitted

DONALD C. BALFOUR, *Director*

GENERAL COLLEGE

To the President of the University:

SIR: I have the honor to submit to you the following report covering the major problems and the progress of the General College of the University from July 1, 1938 to June 30, 1940.

The purpose of the college.—During the past year which has brought to a rounded close eight years of the life of the General College and five years of extensive and intensive experimentation under subsidy from the General Education Board, the purpose of this college in the past and new purposes to be evolved have both become clear. Our curriculum revision, based soundly on the exploratory investigations of our students and of former students of the University, now responsible adults, and of the swift changing and disturbed social order in which both groups live, has proved itself valid not only here but in many other educational institutions. These studies show that the basic need of all students is for self-knowledge; that we have been right in setting up and beginning the development of a core curriculum of general education in individual orientation; that this must bring together, for the increase of self-knowledge, specialized learnings from many fields, notably medicine, psychology, child welfare, education, art, music, literature, ethics, and esthetics; that these materials must be so synthesized, made clear and concrete, and applied to the nonspecialized student that he may be sensitized to, and started on his way in, many areas of objective self-study.

These studies demonstrate, second, that there is great, common, social and individual need for home and family life orientation and that we have been right in attempting to build, out of the scholar's researches in home economics, art, botany, economics, medicine, anthropology, and sociology, a synthesizing core of general education focused directly on the problems of student adjustment to his present home and family, and upon his preparation for establishing a home and family of his own. Our students themselves, as well as informed scholars in these various fields, are frightened, some vaguely and some directly, by the many signs of disintegration of the American family. They are aware that the national divorce rate is rising to a ratio of just about one divorce to six marriages, that in Minneapolis it is one to four, and that in some states it is one to two. The students are glimpsing what this may mean to them in terms of emotional disaster and other costs in suffering, and they are determined to find out, if they can, how to build better homes and families in the future, how to improve physical, emotional, psychological, and financial relationships in marriage and homemaking, and to foresee and avoid attitudes and behavior in their own lives that are likely to lead to conflict and crack-up. Students in the General College and throughout the University are increasingly recognizing their own deep need for instruction in this important lifelong phase of experience. They will not long be contented with extracurricular short courses on *How To Be Happily Married*, in ten lectures, no matter how perfect in themselves those lectures may be. We have had committees from the College of Science, Literature, and the Arts, from the College of Education, and from the Institute of Technology come to this college to discuss what might be done by the University for them in this area.

Research such as that of the New York Regents Inquiry, correlated with our own, has proved that secondary schools and colleges have in the past grossly

neglected the third important common core of general education, that of vocational orientation. These show that the majority of students, themselves blind and being impelled by teachers and parents who are likewise blind, are reaching ultimate confusion in the process of choosing a life job that they can do and want to do. Looked at by label there are thousands of occupations. Looked at by function there are comparatively few. Most teachers, who have seldom if ever left the classroom since they entered kindergarten, know far too little of the work of the world to guide young people into ways of choosing, training for, getting, holding, and growing on the right job. Most parents, abysmally ignorant of any but a few occupations and further prejudiced by illusion or lost ambition are equally ill equipped to orient students to themselves as potential workers or to work itself in all its variety. It is clear, therefore, that the process of vocational orientation is a responsibility of the school and college because without it the school's part in the preparation of young people for life careers becomes wasteful. This University has thirteen schools and colleges. It has a multitude of departments. In the majority of each of these there are a number of majors and minors. There are approximately six hundred courses open to freshmen and sophomores. It is obvious that any young man or woman must have expert and organized help to choose from this welter of offerings the best training for him. To develop such organized and expert help through our course in Vocational Orientation, co-ordinated with our counseling and with the university services of the Testing Bureau and the Health Service, has been one of our chief concerns. While the process is by no means perfected, it has nevertheless made great strides. Among many evidences of this is the fact that a weekly lecture broadcast over WLB from the class has been listened to by more than five thousand students in senior high schools and colleges throughout this and neighboring states.

Our studies further demonstrate a consuming need by young people for training for citizenship in democracy. They show that we are on solid ground in attempting to develop basic syntheses in social and civic orientation. Overwhelming evidence comes from our studies of students in college and of former students in the University, that neither fragmentary courses in the specialized fields of the social studies nor preaching sermons about good citizenship have had the necessary conditioning effect of developing social and civic sensitivity and skill in being good neighbors and good citizens. In general, both college students and adults are fascinated by international affairs which appear to them spectacular, grandiose, and important. But both groups think local political, social, and economic affairs are dull, stupid, and unimportant. We have, in the past, almost wholly failed to convince them that their personalities, homes, families, and jobs depend positively upon their becoming informed and active good neighbors and good citizens. Again, while the General College curriculum in this area is by no means fully developed, it has nevertheless already demonstrated the merit of making a direct realistic and frontal attack on the problem of turning students into citizens.

Further corroboration of the validity of these four core areas as being basic to general education is found in the facts that (1) the National Education Association Policies Commission has adopted them as the bases of elementary and secondary education; (2) the Progressive Education Association has approved of them as its purposes; (3) the California Association of Junior Colleges has declared its intention to foster the growth of curricula in all these four areas, as basic to general education in each of the member institutions; (4) the Alabama teachers colleges are making a co-ordinated state-wide effort to build general edu-

cation for teachers in these areas; and (5) a considerable number of other universities and colleges are, with local modifications, developing programs on these principles.

While the General College during the past eight years has limited its purposes, its research, and its experimentation to general education alone, its administration and staff have been aware that the educational pattern of instruction and training for our students was not and could not be complete until it was supplemented with vocational and semiprofessional training integrated with general education. We have in the past tried to meet the needs for such training for many of our students by transferring to the other schools and colleges those who were ready and able to meet the competition in the professional schools of the University. Others we have prepared and sent to technical schools, business, art, music, army, navy, and air training institutions. This process did not, however, affect a large number of our students nor is it by any means as satisfactory a method as will be that of developing full programs of both general and semiprofessional training here.

The staff of this college was, therefore, enthusiastic in welcoming the recommendation of the Senate Committee on Education, that the purposes and further research and experiment in this college be modified to include exploration and development of vocational and semiprofessional training for its students.

The student body.—In these past two years the student body of the General College has grown in numbers and strength. The morale of the students, their confidence in the college, its teachers, and its courses, and, in some instances, their pride in these, has increased. They have fully co-operated with the staff in orienting and registering freshmen, in helping to prepare mimeographed handbooks on counseling, registration, and examination procedures, and in criticizing and suggesting changes in course materials, management, and teaching. They have likewise helped with many hours of time, on the part of many students, in some phases of the evaluation of the work of this college. This improvement is due to a number of factors. The suspicion and uninformed criticism of this college, upon which I have commented in previous reports, has dwindled rapidly in these past two years. Through the research and curriculum studies we have made, the courses and teaching have been improved and made more effective and attractive. Counseling has steadily increased so that more students are getting more personal attention both from the professional counselors and the members of the teaching staff. Credit and transfer arrangements with the other colleges have been increasingly clarified and the students kept informed. As a result, many more students than formerly are returning to the college for a second year, the number taking comprehensive examinations has increased, and the number graduating with the associate in arts degree is growing. These things, plus the increasing demand for our courses by students in other colleges, account for the somewhat curious fact that our student registrations in the fall of 1939 increased 20 per cent and the number of course registrations jumped 33 per cent.

Curriculum revision.—Studies about our students, known as the General College Adolescent Studies, and the study of former students in the University, known as the General College Adult Study were reported in full in a 220-page bound mimeographed report in August, 1939. During this past year the entire staff has been working to interpret fully the findings of these studies into meaning for, and classroom practice in, general education. The staff has reorganized and improved to a greater or lesser degree all areas of the General College curriculum. The past and present curriculum and recommendations for future study and change

are now fully reported in the bound mimeographed volume, "Curriculum Making in the General College."

Publications.—As I reported to you in 1938, the General Education Board had just allotted \$6,000 to us for publications on the work of the General College. A small portion of this has been spent on the annual reports of problems and progress of the college which have had national circulation. The staff has agreed that the balance shall be put into the publication of a set of four volumes in uniform format to be published by fall of 1941. These volumes are to be:

1. A book by Dr. Cornelia Taylor Williams on the results and interpretation of the General College Adolescent Study. It will attempt in part to answer the question for other institutions, "Assuming that you want to learn as much as possible about your students, their families and their environment in order to teach them better, how do you prepare for, make, interpret, and apply such a study?"

2. A book by Dr. C. Robert Pace bringing to bear the findings of our Adult Study on the question "Assuming that you want to follow up your graduates into adult life, and to trace, insofar as it is possible, the benefits they derived from your college, how do you make such a study, determine the values, and interpret and apply the findings?" In this volume is to be reprinted in full the Adult Study Questionnaire used by the staff in doing this research. At the time the questionnaire was sent, 500 extra copies were published. The demand was so great that the supply was exhausted in a few months and yet, two years later, the requests continue for copies.

3. A book by Dr. Ruth E. Eckert on her two-year evaluation study which will give a clear picture of the life and the work of this college as seen by administration, staff, students, parents, and the public, plus research studies on growth and change in our students under impact of the college, and will also try to answer the question "Assuming that you are planning and carrying out educational experiments in your institution, how do you set about measuring what you get for what you do?"

4. A book by Dr. Ivor Spafford, assisted by the entire staff, attempting to answer the question, "Assuming that your institution wants to develop curricula in general education on the basis of serving the measured needs of your present students and of the adults they are to become, how do you develop and teach such a curriculum?"

These volumes will supplement richly this, my last report to you on the General College.

Respectfully submitted,

MALCOLM S. MACLEAN, *Director*

UNIVERSITY COLLEGE COMMITTEE

To the President of the University:

SIR: I submit herewith the report of the activities of the University College Committee for the years 1938-39 and 1939-40.

The University College, which was established in 1930 by the Board of Regents as a practical means of giving to students, when advisable, greater flexibility in the choice of courses of study than is provided in the curricula of the regular colleges of the University, has now closed its tenth year of operation. The college is governed by a committee which is empowered to approve curricula of individual students and to grant degrees upon their completion. It has been from the beginning a consistent policy of the committee to make every effort to secure for students who apply to it for enrolment the needed modification in curriculum through petition or otherwise in some one of the regular colleges of the University. For this reason enrolment in the college is not large and has become stabilized at about 45 students each year. For this reason, too, the services of the college to students is not limited to those enrolled.

There is little that can be done by way of a systematic analysis of the case histories of the students who have been registered. They come to us for a variety of reasons. They may have special abilities or interests which are not given full development in any of the professional schools. For example, several students each year want to capitalize their artistic talents by combining practical art courses with advertising courses in the Departments of Journalism and Psychology, and the School of Business Administration. Others combine their art talents with courses in the biological sciences in preparation for medical art work.

Students frequently find that they have not properly assessed the requirements of professional courses in terms of their own abilities. For example, each year a few students in the course in architecture discover that they have no talent for architectural design upon which the department here places much emphasis. They are interested more in the constructional and engineering aspects of the profession. For these students we have developed a program in which engineering subjects are substituted for those in design.

The University College is often helpful to mature students who return to complete their university education after several years' work experience. It is clear that in many instances these students should not be subjected to the same curriculum requirements as are set up for students entering from high school.

The cases mentioned above are by no means exhaustive but will serve to indicate the way in which the college functions.

During the past ten years the University College has graduated 240 students, of whom 47 have received honors.

Respectfully submitted,

JOHN T. TATE, *Chairman*

SPECIAL EDUCATIONAL UNITS

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GENERAL EXTENSION DIVISION

To the President of the University:

SIR: I submit herewith a report on the activities of the General Extension Division for the biennium beginning July 1, 1938, and ending June 30, 1940. This survey covers, in a summary way, the reports of all the departments of this division: the Department of Extension Classes; the Department of Correspondence Study; the Department of Community Service, which includes the University Lyceum, the Drama Service, and the Bureau of Visual Education; the Municipal Reference Bureau; and the University Broadcasting Service, which operates the University Radio Station, WLB. In addition, we have for the first time a report, for 1939-40, on the forum counseling service which was set up jointly by the United States Office of Education and the University of Minnesota.

Extension classes.—The following tabulation relating to extension classes and short courses shows that the registrations in evening classes were maintained at about the customary level during the biennium. From the standpoint both of separate class registrations and total number of individuals concerned, enrolment was higher than usual except for the one banner year, 1937-38. It would appear, therefore, that the interest in adult education is by no means diminishing. As a matter of fact, the spread of the movement for adult education has been an outstanding phenomenon of the past decade.

EXTENSION CLASSES AND SHORT COURSES, 1938-40

	1938-39	1939-40
Summary of extension classes		
Student registrations		
Total collegiate	8,296	8,027
Total business	3,228	3,403
Total engineering	1,462	1,399
Total	12,986	12,829
Net loss over previous year	1,218	157
Total number of classes given	682	686
Total number of individuals in classes	8,467	8,321
Net loss over previous year	649	146
Total fees	\$138,979.92	\$136,450.00
Net loss over previous year	\$ 16,563.11	\$ 2,529.92
Summary of short courses		
Total number of short courses	12	10
Total number of kinds of short courses	9	7
Number of registrations in short courses	608	527
Total receipts	\$15,201.75	\$12,974.25
Net loss over previous year	\$ 1,058.25	\$ 2,227.50

State High School Music Contest.—With the death of Mr. Irving W. Jones on July 12, 1939, the General Extension Division definitely abandoned its eight-year affiliation with the State High School Music Contest. The management of this contest had been with Mr. Jones a matter of avocational interest and there was no one else qualified to take up the work. A connection with the University is now maintained through the regular University Department of Music.

Forum counseling service.—On September 1, 1939, Mr. John A. Bekker entered upon his connection with the University of Minnesota as a counselor and adviser in the organization and management of public forums and discussion groups. His services were secured through the use of WPA funds placed at the disposal of Commissioner John W. Studebaker of the United States Office of Education. Part of the expenses of this enterprise were borne by the Office of Education and the balance by the General Extension Division. Mr. Bekker made his headquarters at the University and traveled extensively over the state, stimulating the organization of discussion groups and attempting to establish them on a permanent basis. The objectives and results of Mr. Bekker's activities are discussed later in this report. Unfortunately the funds available from the Office of Education were exhausted on June 1, 1940, and the work in Minnesota thereupon ceased, at least for the time being.

Student counseling.—The staff of this division, after much discussion, has come to the conclusion that extension students have not been given as much guidance and counseling as the situation demands. It has been decided, therefore, to set up on a part-time basis an office in the Extension Division for student counseling and guidance. Students, even as mature as extension students, are frequently bewildered by the multiplicity of choices involved in the numerous offerings. They need a trained and experienced counselor and guidance expert to help them analyze their own abilities and aptitudes for the purpose of choosing wisely their vocations and their avocational interests and recreations. The new service will be inaugurated on September 1, 1940. The first counselor will be Mrs. Cornelia D. Williams.

CORRESPONDENCE STUDY

Registrations.—The high point of new registrations in any one year preceding this biennium came in 1930-31 with a total of 2,164 new enrolments. The depression brought a low point in 1933-34 with a loss of 31 per cent under the registrations of 1930-31. The subsequent upswing was gradual and steady until 1938-39 when a new high point was reached, slightly above 1930-31. The total of new enrolments in 1938-39 was 2,170. In 1939-40 there were 2,090 new registrations which was 3.7 per cent below 1938-39.

Work of the field representative.—The field representative has many functions. He must be flexible in personality and respond to many kinds of calls for help. First, he is the contact officer of the General Extension Division and as such he is inevitably a contact officer for the University of Minnesota. Second, he is the territorial business representative for the Correspondence Study Department. He is at once a counselor of his clientele on curriculum needs and on teacher certification needs. He is therefore in close contact with the state teachers colleges of Minnesota. He is a liaison officer of the University in that he must direct inquiring persons to the proper campus authorities for information. And last, but not least, the field representative is in effect a public relations officer in that he is in a position to guide thought regarding the University, and to allay criticism which he hears or senses.

Promotion.—With the upswing of business and enrolments, the department increased its promotion efforts. It revised all literature, obtained more and better

mailing lists, sent out more direct-by-mail advertising letters, and doubled the display advertisements in its list of magazines: the *Minnesota Alumni Weekly*, the *Minnesota Parent-Teacher*, the *Minnesota Club Woman*, and the *Minnesota Educational Journal*. Each issue of these magazines reached an average circulation of about 80,000 in 1938-40. The direct mail increased to an average total of 13,500 pieces in the same time.

Relations with the State Department of Education.—A more liberal attitude toward correspondence study is evident at the State Department of Education of Minnesota. The "Manual" of the department for August, 1935, introduced the innovation of allowing one unit of correspondence study work toward high school graduation, and more liberal plans will probably be adopted in the future.

The Physical Education Department of the State Department of Education is developing plans for the organization and certification of recreation workers, and has asked that our Correspondence Study Department be prepared to offer certification help.

An investigation of the procedures of twelve other universities with reference to the production and teaching of supervised correspondence study courses shows that most schools are relieved of the contingent expenses by state or federal help. The State Department of Education of Minnesota is not ready to aid financially with such an endeavor nor is it ready to admit such liberal accrediting methods as have been adopted by a few other states. However, the commissioner favors allowing a number of high school credits taken by correspondence study to apply toward graduation. He is also considering the value of supervised correspondence study work and has appointed a committee from his staff to study this matter in connection with the General Extension Division authorities.

Home study work in local high schools.—Over one hundred ten students who have taken college credit study work during the years past have entered institutions of higher learning. About one half of them have attended the University of Minnesota. The records show that about 55 per cent of these students have done more successful work in their respective colleges than they did in their college credit study work in local high schools. This home study plan tends toward the elimination of weak students as well as toward the advancement of satisfactory students.

Special investigations.—During 1939-40, the department had the assistance of two NYA students. Data on a number of items of interest were sought. The sources of information were file cards of 1934-36, augmented by two questionnaires.

The following averages for the group were revealed: males, 39 per cent; females, 61 per cent; age, approximately 26 years; education, approximately three years of college. Of the group studied, approximately 41 per cent had, before enrolling, advanced into senior college or beyond; 45 per cent had finished junior college, 12 per cent had gone through senior year of high school, and about 2 per cent rated educationally below the junior year of high school.

Of the registrants under investigation, 44.6 per cent finished the courses in four months or less. The percentages of those finishing after four months decreases in such proportion that it is clear that if a registrant does not finish in the initial period, there is a rapidly decreasing chance of his finishing at all. Almost 50 per cent gave as reasons for dropping courses, "entered day school" and "lack of time"; 71.4 per cent of the group gave as their reasons for registering: "friend" (31.1 per cent) and "day student" (40.3 per cent).

Statistical summary.—The statistical summary for the Correspondence Study Department for 1938-40 follows:

	1938-39	1939-40
Registrations:		
Registrations in force beginning of year.....	1,722	1,829
New registrations during the year.....	2,170	2,090
Reinstatements from previous years.....	76	55
Total registrations in force during year.....	3,968	3,974
Expirations	888	1,018
Completions	1,306	1,133
Cancellations	152	144
Reinstatements	207	149
Registrations in force at the close of the year.....	1,829	1,828
Special courses:		
Maternal and Child Hygiene*		
Registrations in force beginning of year.....	57	.....
New registrations during the year†.....	101	28
Reinstatements from previous years.....	0	0
Total registrations in force during the year.....	158	.....
Completions without certificate.....	10	.....
Cancellations	87	.....
Certificates issued	8	.....
Registrations in force at close of year.....	53	.....
Child Welfare‡		
Registrations in force beginning of year.....	6,123	6,300
New registrations during the year.....	224	142
Reinstatements from previous years.....	0	0
Total registrations in force during the year.....	6,347	6,442
Certificates issued	47	10
Registrations in force at close of the year.....	6,300	6,432
Summary of all courses		
Registrations in force beginning of year.....	7,902	8,182
New registrations during the year.....	2,495	2,260
Reinstatements from previous years.....	76	55
Total registrations in force during the year.....	10,473	10,497
Registrations terminating during the year.....	2,498	2,333
Reinstatements	207	149
Registrations in force at close of the year.....	8,182	8,313
Individuals enrolled (new registrations)		
Regular courses	1,838	1,724
Maternal and Child Hygiene.....	101	28
Child Welfare	224	142
Total number of individuals enrolled during the year.....	2,163	1,894
Lesson reports received		
Regular courses	30,503	28,549
Maternal and Child Hygiene.....	159	.....
Child Welfare	943	135
Total number of lesson reports received during the year.....	31,605	28,684
Geographical distribution of new students		
Minnesota	1,422	1,306
Other states	402	403
Outside of the United States.....	14	15
Number of states represented.....	38	39
Number of foreign countries represented.....	3	6

* No fee charged for the course in Maternal and Child Hygiene.

† The Division of Child Hygiene in the State Board of Health has discontinued asking students to report on lessons. The division, therefore, no longer issues certificates.

‡ The fee for each course in Child Welfare is \$1.

	1938-39	1939-40
Courses offered		
Total number	249	255
College courses	210	217
Preparatory courses	21	21
Noncredit courses	18	17
Instructors		
Number	93	104
Supervised group study in high schools		
Group centers	3	3
Courses for which students registered	20	33
Students writing comprehensive examinations	69	72
Club study programs		
Registrations	18	22

DEPARTMENT OF COMMUNITY SERVICE

Summary of activities.—The following tabulation summarizes the activities of the Department of Community Service during the biennium:

	1938-39	1939-40
<i>Lecture and Lyceum</i>		
Number of programs used	22	20
Number of schools and organizations served	204	272
Number of engagements filled	832	1,164
Total receipts	\$17,033.01	\$21,759.91

Loan Play Library

Total number of plays in library	3,501	3,630
Number of requests filled	647	560
Number of copies sent out	3,559	3,303

Visual Instruction

Number of communities served	364	484
Number of visual programs furnished	2,845	3,713
Total receipts	\$ 5,251.26	\$ 8,096.62

RADIO STATION WLB

Facilities and staff.—WLB has completed two years of broadcasting on 760 kilocycles, and during this period significant developments have taken place. WLB is one of the best equipped educational radio stations in the country, having four studios, two control rooms, six offices, and a reception room, in addition to its transmitting equipment. The staff consists of eight university employees, assisted by three graduate students working half time, a number of student engineers, four WPA workers, and seven NYA workers. Although many faculty members and students have volunteered their services in developing programs, in the last analysis the success of WLB depends on its eight staff members. They are responsible for the preparation and presentation of programs heard by thousands of people. They are entrusted with responsibilities of instruction and public relations. The future of the station depends upon their proper selection and training.

Most of WLB's programs are based upon the University's resources. Few radio stations, network or local, present a lecture series comparable to the Thursday convocations. In broadcasting these, WLB achieves one of its principal objectives—that of making available throughout the state the cultural and educa-

tional advantages of the University campus which otherwise would be available to only a few thousand people. A recording of Thomas Mann's talk on "The Problem of Freedom" won a first award at the contest held by the Institute for Education by Radio at Columbus, Ohio, thus bringing national recognition to our convocation broadcasts.

Broadcasts from university classrooms have included lectures on political science, economics, history, sociology, and philosophy.

The Minnesota School of the Air offered eleven programs for classroom reception, which were heard by fifty thousand students during the second semester of 1939-40. Returns from a questionnaire sent to schools in Minnesota, Iowa, and Wisconsin, indicate that the Minnesota School of the Air had twice as many classroom listeners as all other broadcasts in our service area combined, including both network and local programs. Included among the eleven features of the Minnesota School of the Air were a radio band clinic, a story period for primary grades, a music appreciation program, current events and travel talks, and a series on vocational guidance.

WLB has offered outstanding musical programs. For two consecutive years the university station has originated a series of Sunday morning concerts by the Minneapolis Symphony Orchestra which were sent to a network of stations in Minnesota and Wisconsin. Arrangements were concluded during the second year of the biennium for regular broadcasts by the Minnesota WPA musical organizations, including the fifty-five piece Minnesota Symphony Orchestra, the thirty-five piece Minnesota Symphonic Band, and the thirty-voice chorus. WLB has also broadcast many programs of fine recordings.

Other programs included the following: news programs, story book time (a fifteen-minute feature for children), and the broadcasting of many special university events. A group of programs for rural listeners has been developed, including the University Farm Hour, and grain and market quotations.

Station co-operation.—WLB co-operated with many nonuniversity groups; its facilities were offered to all colleges and educational agencies in the state, irrespective of creed or educational philosophy. Among those accepting the invitation was Macalester College in St. Paul, which broadcast a number of its convocation lectures. Through the co-operation of WTCN, arrangements were made for WLB to carry some of the educational and public service features of the National Broadcasting Company. Among other co-operating groups were the Minnesota State Medical and Dental Associations; Hennepin County Tuberculosis Association; Hamline University; Augsburg College; Minneapolis and St. Paul libraries; Minneapolis and St. Paul public schools; St. Paul Civic Opera Association; Orchestral Association of Minneapolis; Minnesota Institute of Arts; Walker Art Gallery; Agricultural Adjustment Administration; Farm Credit Administration; and the United States Department of Agriculture.

Concluding observations.—Unfortunately, WLB must sign off at local sunset. This varies according to the time of year, from 8:00 p.m. in June and July, to 4:30 p.m. in December. Consequently the station's service to the public is curtailed, especially during the winter months.

It would be desirable if WLB could utilize more of the University's resources in building programs. It is recommended that the academic duties of faculty members be lightened in return for broadcasting. If members of the faculty were assigned regular broadcasting periods, radio courses of wider appeal than those now broadcast could be organized. This would also solve the problem of broadcasting during vacations, eliminating the interruptions in our programs which occur

each time the University suspends classes for holidays, examinations, or vacations.

The University and the state possess the resources to develop WLB into one of the nation's outstanding educational stations. It must be realized that WLB has tremendous value to the University as an educational, publicity, and public relations medium. The diminution of an instructor's load in return for broadcasting may eventually require additions to the teaching staff, and additional expenditures. But if it is worth while to organize elaborate courses for a few university students, it must also be worth while to present educational radio programs for many thousands of people all over the state.

FORUM COUNSELING SERVICE, 1939-40

Preliminary work.—Considerable time was spent in the beginning inquiring into the forum situation that prevailed when the counseling service was introduced. Data relative to existing forums and pertaining to promotional activities along this line on the part of the State Department of Education, the University of Minnesota (Agricultural Extension Service), the WPA (Educational Division), the Minnesota Council for Adult Education, and several other agencies were gathered. This was done in order to find out what had been done and accomplished toward the organization of public forums and to facilitate co-operation with agencies pursuing objectives similar to those the counseling service was expected to attain.

Promotional work and counseling of established forums.—In this activity the objectives were as follows:

1. Co-operative arrangements for the actual operation of public forums on a permanent basis as a public service of the public school systems, where such arrangements might be possible, and where not, as an activity of civic, social, or religious organizations.
2. Affiliation of organizations of small towns into units designed to pool means for the purpose of securing economically competent leadership and sharing the same equitably in the operation of discussion groups.
3. More economic and efficient use of state and local means for adult education by supplying material, such as bulletins and leaflets released by the United States Office of Education and dealing with various phases of forum organization, operation, and financing.
4. More intense appreciation of the philosophy of adult education (lectures, articles, etc., on adult education and the forum movement).
5. Consolidation and intensification of existing forum programs.

It soon became apparent that the greatest need for promotional work existed in rural communities, and accordingly it was decided to concentrate the work in a limited number of rural areas. These were chosen so that they would include clusters of towns more or less in close proximity to each other and within the network of transportation means. They were around the following centers: Duluth, Winona, Mankato, Marshall, St. Cloud, Hibbing, and Moorhead.

Methods employed.—Most of the work was carried on through field visits. Communities were visited with the purpose of organizing and counseling committees for the planning of forums. Usually the school superintendents were requested to call the meetings of leading citizens with whom the various phases of the organization of forums were discussed. Much work had to be done through interviews with individuals of importance who were interested in the forum movement. The field trip work was supplemented by correspondence.

Accomplishments.—Many of the results of the promotional work done cannot be measured as yet. Increase in the interest in adult education and in forums specifically is one example. But there are results which are measurable. In 17 communities definite programs have been established and forum meetings will start next in September, 1940. In 23 additional towns preliminary work has been done.

Thirty-seven superintendents of public schools requested counseling aid looking toward the establishment of forums in their high schools. In 11 of these communities actual plans for the operation of student forums have been set up with the aid of the counseling service.

A number of existing forums have been counseled and aided by supplying material. Examples: Faribault Community Forum, Duluth Saturday Lunch Club, Willmar Unitarian Forum.

MUNICIPAL REFERENCE BUREAU

The Municipal Reference Bureau, in a dual capacity, serves as a university division for students' reference work and, as headquarters of the League of Minnesota Municipalities, extends its facilities to government officials throughout the state. Although the bureau and the league maintain separate identities, by custom and for practical purposes the two organizations are merged the one in the other. A single head administers both and the personnel, jointly financed, work as one staff.

Inquiries.—The primary service of the bureau and the league is its information service. Extensive files of available materials, useful to students and municipal officials, are continually expanding. These include memoranda, ordinances, research studies, clippings, legal opinions, and publications on almost every subject with which government is concerned. Many inquiries are answered by telephone and not recorded but all inquiries received by mail are recorded and indexed for further reference. Inquiries recorded totaled 1,207 in 1938-39, and 1,389 in 1939-40. More than two hundred special memoranda have been developed on more than two hundred subjects of inquiry and copies are made available to inquirers. As new subjects are demanded this file of memoranda is extended.

Publications.—The chief of the Municipal Reference Bureau is editor of all publications issued by the League of Minnesota Municipalities. A magazine, *Minnesota Municipalities*, is issued monthly and is mailed to Minnesota municipal and state officials and many organizations in the government field scattered from coast to coast and in a few foreign countries. Materials received in exchange are added to the collection of the bureau library now under the direction of the university librarian.

Other publications include:

Minnesota Year Book, 1939. A compilation of government statistics for Minnesota, 351 pages, and a Supplement to this volume issued in 1940, containing 48 pages.

Civil Service for Policemen in Minnesota by Marcus Gordon, former staff member and graduate student. 15 pages.

Election Requirements in Villages under the Minnesota Election Laws of 1939. 7 pages.

New Minnesota Tax Procedure by G. Howard Spaeth. 12 pages.

Changes in U. S. Steel Iron Ore Marketing Policy Endangers Range Communities and State by Professor E. W. Davis. 5 pages.

Prevention of Bicycle Accidents, including a suggested ordinance. 4 pages.

Organizing the Community for Recreation, including a suggested ordinance. 8 pages.

Rural Fire Fighting Equipment by H. E. Jurgensen. 3 pages.

Disaster Preparedness, A Manual for Minnesota Municipal Officials by the Committee on Disaster Preparedness, assisted by Warren C. Hyde.

Mimeographed studies.—Several studies have been mimeographed and made available, including a revision of the memorandum on the Green River Ordinance and data on "Refuse Disposal for Municipalities, Including Incineration." A tentative draft of a memorandum on zoning procedure and a suggested ordinance is in the process of revision. Detailed analyses of actual and model gas franchises were prepared and distributed for the Franchises Committee.

Research and consulting services.—Some of the more important services in research, in addition to those listed under "Publications" were such subjects as civil service practice in fire and police administration, fire insurance rates on municipal buildings, and home rule charter procedure. Consulting services were rendered several city charter commissions and assistance was given in improving record systems and improvement procedures in specific cases.

Civil service examinations.—The bureau and league have developed a civil service examination service for recruiting of firemen and police. Available materials and consultation with national personnel authorities have enabled the staff to place this service on a more professional status than is possible for local officials.

Training schools.—Several in-service training schools have been developed by the Municipal Reference Bureau and the League of Minnesota Municipalities as annual short courses. Most of these are held in co-operation with the Center for Continuation Study. They include courses for assessors, milk sanitarians, plumbing inspectors, sewage plant operators, waterworks operators, police officers, and firemen. During the year 1939-40 these schools had a total attendance of 438. Plans are under way to provide, with federal aid, a traveling instructor to work with communities and groups of communities in training firemen and policemen. If such district instruction can be established, the state-wide schools for firemen and policemen will be discontinued.

Committee work.—League committees composed of municipal officials are appointed each year to study certain current municipal problems. These make use of the facilities of the Municipal Reference Bureau in preparing reports. During the past year reports prepared included the subjects of civil service, disaster preparedness, franchises, insurance, municipal revenues, and liquor local option.

OBSERVATIONS AND CONCLUSIONS

It has been observed that there is now a distinct trend on the part of adult students toward noncredit courses—that is, courses which are not set up on the University campus and organized as carrying credit toward a university degree. There is a drift among extension students toward the type of course which makes an immediate and direct contribution to vocational efficiency. There is also a growing interest in that type of noncredit course which contributes to avocational interest and to the recreational use of leisure time. The characteristics of these courses are that they are narrowly limited in range; they do not need to fall within the time limit of the regular academic calendar; they tend to divide up into small and quite manageable sections of various degrees of length so that some courses may run for ten weeks, others for twelve, others for five, and others for seventeen or eighteen, followed by a similar course of the same length. It is clear that the watchfulness of the Extension Division must be exercised to see that these courses are supplied generously to meet public demands and public needs, and also to insure that, even though these courses be vocational or avocational, they are taught by members of the university faculty with certain standards and certain levels of achievement that have been recognized as belonging to work done on the college level. In other words, such courses should not be watered down but should be held up to recognized standards of work and of achievement. There is a warning also that universities and colleges should not take a supercilious attitude toward these vocational and avocational courses. The state universities, particularly, have large and useful facilities, and the people who need educational help along the lines of their vocations are going to look to the tax-supported universities for

that help. There is a great area of good will to be cultivated here which no wise administrator will overlook. I look for an increasing trend in the direction of these noncredit courses during the next ten years. It will not surprise me if, at the end of that time, the extension divisions find that their noncredit courses outnumber their courses offered for regular college degrees. I am of the opinion that both types of courses are valuable, and both should be maintained for the benefit of the constituents whom they may happen to fit. We should aim to meet the needs of a wide range of abilities and aptitudes. Any university that stands aside from this quite definite current trend will find itself losing in prestige and in public good will. The university that uses all of its facilities without stint to help in these matters will find itself cherished and prized by the citizenry. This is an important fact touching the future growth and prosperity of all tax-supported institutions. The extension divisions must be alive to their opportunity.

Respectfully submitted,

RICHARD R. PRICE, *Director*

CENTER FOR CONTINUATION STUDY

To the President of the University:

SIR: I submit my report as director of the Center for Continuation Study for the biennium ending June 30, 1940.

Attendance data.—During the two-year period ended June 30, 1940, the Center offered 90 institutes or courses, which were attended by 3,832 persons. As will be seen in Table I of this report, this compares with 58 courses and 2,867 persons during the preceding biennium (the Center opened on November 13, 1936, so that the period ending June 30, 1938 consisted of 19½ months). Inasmuch as the Center, unlike many departments of the University, has definite circumscribing limits of space as well as time, it is perhaps worth while to point out the fact that during the year ending June 30, 1940, the Center program operated through 244 actual days of course instruction, compared with 185 days for 1938-39, and 191 days for 1937-38.

The attendance figures for the 1938-40 biennium show that 2,570 persons, or 67 per cent of the total of 3,832, came from Minnesota cities and villages, and that 1,198 persons (31 per cent) came from other states of the United States. The remaining 64 persons came from foreign countries, mainly Canada. It is noteworthy that the attendance from Minnesota communities shows only a very small increase, while from outside communities it has been multiplied nearly four times over the total for the 1936-38 biennium. The Center has now attracted registrants from 35 of the states of the Union, from the District of Columbia, from the Philippines, and from 9 foreign provinces and countries. Registrants have come to the Center from 410 separate communities in Minnesota during the period November 13, 1936 to June 30, 1940.

TABLE I. CONTINUATION COURSES AND INSTITUTES, 1936-40

	1936-38*		1938-40		Total*	
	Number	Per Cent or Average	Number	Per Cent or Average	Number	Per Cent or Average
Number of courses	58	.....	90	.....	148	.....
Number of registrations	2,867	100	3,832	100	6,699	100
Minnesota	2,518	88	2,570	67	5,088	76
Other states	319	11	1,198	31	1,517	23
Foreign countries	30	1	64	2	94	1
Male	1,706	59	2,472	65	4,178	62
Female	1,161	41	1,360	35	2,521	38
Number on faculty	1,045	18	1,581	18	2,626	18
Hours of instruction	2,042	35	2,666¾	30	4,708¾	32
Days of instruction	317	5.5	429	4.8	746	5

* 19½ months, from November 13, 1936 to June 30, 1938; and 43½ months to June 30, 1940.

Types of institutes.—The 148 institutes which the Center has presented since its opening are classified by type in Table II, both for the total period and by bienniums. It is not possible to create strictly exclusive categories. Many institutes are classifiable in more than one category, and the selection finally made had to be arbitrary. Many of the so-called "hospital service" courses belong in the "social welfare" class as well. Some courses belong in the "civic and cultural" group as well as in "social welfare." Some courses in the "education" group belong also in

the "civic and cultural" group. At least one of the "medical" courses could also be appropriately classified as "technological"; and so on. In general, however, the rule of selection followed was to take into account the bearing or result of the course as a whole, and to put the course in the group which thus seemed most appropriate.

TABLE II. ATTENDANCE AT TYPE OF COURSES, 1936-40

	1936-38*			1938-40			Total*		
	No. of Courses	Attendance	Average	No. of Courses	Attendance	Average	No. of Courses	Attendance	Average
Educational	14	927	66	15	576	38	29	1,503	51
Medical	14	397	28	34	936	27	48	1,333	28
Hospital	2	131	66	13	875	67	15	1,006	67
State-municipal functions.....	7	332	47	10	475	48	17	807	47
Commercial	2	328	164	1	184	184	3	512	171
Civic and cultural.....	12	429	36	2	60	30	14	489	35
Technological	2	83	42	6	294	49	8	377	47
Social welfare	3	129	43	4	212	53	7	341	49
Pharmaceutical	2	111	56	2	105	53	4	216	54
Dental .....	.....	.....	.....	2	63	32	2	63	31
Legal .....	.....	.....	.....	1	52	52	1	52	52
Total	58	2,867	49	90	3,832	43	148	6,699	45

* 19½ months, from November 13, 1936 to June 30, 1938; and 43½ months to June 30, 1940.

Age and education data.—Age figures have been obtained from 5,220 of the Center's total registration of 6,699. Education figures have been obtained from 6,124. The results are shown in Table III. About 83 per cent of the Center registrants have had some collegiate training, and 65 per cent have collegiate degrees. Of the latter, over half have one or more advanced degrees as well. The age distribution continues to indicate that the Center is attracting a representative selection from the age group over 35 years.

TABLE III. EDUCATION AND AGE DATA*

	Number of Registrants	Per Cent
Education data secured for.....	6,124	100
Grammar school	289	5
High school	764	12
College (some)	1,120	18
College degree	1,940	32
Advanced degree	2,011	33
Age data secured for.....	5,220	100
Over 60	248	5
40 to 60	2,174	42
30 to 40	1,994	38
Under 30	804	15

* From November 13, 1936 to June 30, 1940.

Incidence of registrations.—As predicted in the report for the preceding biennium, the percentage of registrations in institutes in education has declined. This decline represents in part an increase in other classes of study; it also shows the results of a policy of limiting the number of offerings in education. For 1939-40, for example, the Center management had requests for 19 courses or institutes in education. After consultation with educators, it was decided to offer only 7. The program finally included 10. Significant are the large increases in enrolment in hospital service and in technological categories. The general field of usefulness of

TABLE IV. POSTGRADUATE COURSES AND INSTITUTES BY TYPES*

	Educa- tional	Medi- cal	Hospital Service	State- Municipal Func- tions	Commer- cial	Civic and Cultural	Techno- logical	Social Welfare	Pharma- ceuti- cal	Dental	Legal	Totals to June 30, 1940
Number of courses or institutes	29	48	15	17	3	14	8	7	4	2	1	148
Number of registrations	1,503	1,333	1,006	807	512	489	377	341	216	63	52	6,699
Minnesota	1,343	603	689	755	481	453	308	161	203	41	51	5,088
Other states	159	664	310	50	31	36	62	169	13	22	1	1,517
Foreign countries	1	66	7	2	.....	.....	7	11	.....	.....	.....	94
Male registrants	559	1,311	143	762	502	112	373	127	175	63	51	4,178
Female registrants	944	22	863	45	10	377	4	214	41	.....	1	2,521
Number on faculty	444	995	402	242	70	211	95	72	81	8	6	2,626
Hours of instruction	935¾	1,759	394	409½	189	337¼	183¼	344½	93	33½	30	4,708¾
Days of instruction	161	270	54	59	32	61	26	60	12	6	5	746

* From November 13, 1936 to June 30, 1940.

the Center has been extended during the last biennium to include courses for dentists and lawyers. The attendance in these courses may be expected to increase. Table IV gives the figures.

Frequency of faculty service.—Since its opening, the Center has used 1,291 different individuals as instructors and leaders in its institutes. Of these, 639 have been members of the faculty of the University or of the Mayo Foundation. The remainder have been experts called in for particular assignments in connection with Center activities. They have come from all parts of the United States. Table V shows the incidence of the burden of service at the Center upon the total instructional staff. It will be seen that out of 1,433 individual assignments, 1,072 have been undertaken by persons who served once only in the several classes of Center courses. The difference between 1,433 and 1,291 represents the individuals who have served in two or more different classes of courses. There is thus a small overlap of 142 persons who have served more than once (most of them twice only) but who are included mostly in the total of 1,072 individual or single assignments. It is significant that nearly 90 per cent of those called on to serve at the Center have been called on not more than twice during the period of the Center's activity. In this connection, I must again express my gratification at the enthusiastic manner in which all members of the faculty of the University have supported the Center by their interest and their co-operation, not only as instructors, but also as advisers and planners in the preparation of courses. Upon this devoted and self-sacrificing help the success of the Center ultimately depends.

TABLE V. FREQUENCY OF SERVICE OF INSTRUCTIONAL STAFF*

Type of Course	Number of Times Instructional Staff Members Have Served											Total Persons
	1	2	3	4	5	6	7	8	9	10	10+	
Educational	263	30	7	3	3	.....	1	2	.....	.....	.....	309
Medical	189	88	52	23	19	9	6	6	1	3	1	397
Hospital	229	40	4	4								277
State-municipal functions ...	135	26	4	4	1							170
Commercial	22	1										23
Civic and cultural	98	3										101
Technological	68	3	2									73
Social welfare	28	3										31
Pharmaceutical	37	2	7									46
Dental	1	3										4
Legal	2											2
Total	1,072	199	76	34	23	9	7	8	1	3	1	1,433

* From November 13, 1936 to June 30, 1940.

The future and its problems.—The most successful institutes and courses of the Center have been those appealing to enrollees of similar professional training or background. This result amply justifies the foresight of the late President Coffman in planning the Center for what might be called unofficial graduate school activities. It also implies, however, that the Center program will undoubtedly contain more and more courses of severely limited subject matter, with a corresponding probable decrease in the average number of registrants per course. For example, the Center has offered 48 medical courses, a number sufficient to demonstrate the trend, and it has been found that there is a natural progress from general

treatment of a broad subdivision of medical science to more specific treatment of a specialty. A general course in medical diagnosis and treatment leads naturally to more specialized courses, such as chemotherapy. Diagnostic roentgenology leads to neurologic radiology. Gynecology and obstetrics leads to gynecological tumors, and so on. The general courses are uniformly well patronized; the specific courses attract smaller numbers. Yet the latter courses are vitally necessary if the Center is to be a true success. With the extension of the use of the Center, a time will no doubt come when it will be necessary in the interests of economy to abandon the present policy of trying to serve only one group at a time. This problem is complicated by the apparent necessity of providing "repeat" courses for interest groups which are large enough to insure a good attendance year after year. The year even now seems all too short. In 1939-40 about half of the courses were repetitions as far as general subject matter is concerned, although the manner of presentation was usually new, and in some instances emphasis was placed upon phases of the subject not heretofore covered in detail.

Noteworthy features.—Among the noteworthy features of the biennium must be mentioned the great increase in hospital service courses. Hospital and institutional administrators, technicians, supervisors, and other staff members apparently have found in the Center's short course technique an admirable method of keeping themselves informed of the best practice in their field. During the biennium ending June 30, 1938, the Center offered them 2 courses and the attendance was 131. For the biennium ending June 30, 1940, the corresponding figures were 13 and 875. As with the very popular medical courses, the planning and liaison work of Dr. William A. O'Brien and the financial help of the Commonwealth Fund grant (see *President's Report, 1936-1938*) have been conspicuous factors in this achievement.

Institutes of more than usual interest during the biennium were those in Placement Procedures (which gathered together from all parts of the United States industrial and collegiate placement officers in about equal numbers to discuss the theory and practice of vocational training in college and recruitment of college men by business, industry, and government); in Vocational Education in Agriculture (which demonstrated that a uniformly trained group can be trusted to evolve and to follow their own program of study in the field of their professional interest); in College Health Problems (which turned an intense spotlight on existing deficiencies and possibilities in safeguarding student health); in Foundry Practice (which helped to show expert gray-iron men why they do what they do when they are expert); in the Valuation of Urban Buildings (for city and village assessors, which set a new standard for specific subject matter and intensive study); in Income Taxation (which convinced attending lawyers that college professors are aware of the practical incidence of the doctrines they help to elucidate); and in Employment Security (which tried to give government employment security agency executives a critical estimate of the achievements, possibilities, and problems of existing social security devices).

"In residence" facilities.—This branch of the Center's service has not been explored to any real extent. It is simply the furnishing of a place for informal but intensive study on a postgraduate level to individuals who have an absorbing interest in some subject which can best be pursued at the University. Those who have lived at the Center while on such an errand have found our facilities valuable.

Many scholars have wistfully wished that they might come for such a purpose, but few have come. I shall welcome suggestions for obtaining more extensive use of the Center by individual students.

Special meetings.—Besides those attending regular Center courses, there have been during the biennium approximately 1,500 persons present at meetings held in the building but not under the auspices of the Center (usually by learned societies, organizations convoked under the invitation of university departments, etc.). This brings the informal attendance up to about 4,500 since November 13, 1936. All in all, the Center has thus been host to about 11,200 persons from its opening to the end of the 1938-40 biennium.

Respectfully submitted

J. M. NOLTE, *Director*

SUMMER SESSION

To the President of the University:

STR: I submit the following report of the Summer Session for the period from July 1, 1938 to August 30, 1940.

Changes and improvements in the curriculum.—In the 1939 Summer Session a course, Safety Education, was added, also additional courses in connection with the co-operative program with the Kellogg Foundation (of Battle Creek, Michigan). In the 1940 Summer Session a Workshop in Higher Education was offered in the College of Education, and several courses for workers in the distributive occupations, as a co-operative project between the College of Education and the School of Business Administration. In the Summer Session of 1940 the Summer High School Clinic Band for the training of high school band musicians was revived. In the 1939 Summer Session we offered for the first time a special course in aeronautics for high school teachers. In the 1940 Summer Session two well-attended courses in aeronautical engineering were offered, one General Aeronautics and the other Introductory Meteorology. In all, approximately eight hundred subjects were offered for study in each session of the biennium.

Special features.—During the Summer Session of 1939 the Center for Continuation Study, in co-operation with the Summer Session, offered a short course in Vocational Education in Agriculture, also a short course in play production. In the 1940 Summer Session a second course in play production was offered, and a four-day course in higher education was added to the offerings of the Center for Continuation Study. There was also a two-day Institute in Radio Education.

There has been a definite policy in the Summer Session of making all the university facilities available for Summer Session students—for example, the University Testing Bureau is now offering a guidance clinic section for students interested in this approach in the personnel field. The expansion of offerings in personnel work during the past two years has provided a more adequate program for school administrators wishing to take advanced graduate work and for elementary school teachers, many of whom are completing the Bachelor's degree at Minnesota during the Summer Session, who wish a broad training course in this field.

Graduate work.—We have increased the number of teaching assistants in an attempt to relieve the graduate staff members from detailed work so that they may be freer for their extremely heavy advisory load in the summer, which is still one of our main problems.

Recreation program.—The usual recreation program of athletic events, Friday social evenings, and educational excursions was continued. Three dramatic productions were staged in the first term of the Summer Session, and we are now offering one dramatic production by the University Theatre in the second term.

Music.—The Minnesota WPA Symphony Orchestra furnished musical concerts to audiences of approximately 1,500 persons. Afternoon lectures and occasional musical recitals drew audiences of 100 to 500 persons.

Registration problems.—Enrolment in the undergraduate courses now appears to be about stationary. The tabulation shows the registrations for the sessions in 1939 and 1940. For the past ten years the Graduate School has been one of the

most rapidly growing units of the Summer Session, and its registration now represents approximately 33 per cent of the enrolment in the Summer Session. The problem of maintaining the graduate staff at a high standard was met in 1940 by an increase in the tuition fee of \$4 per term to take care of the increased load on the instruction budget in the higher salaried brackets of the graduate departments.

SUMMER SESSION REGISTRATIONS, 1939 AND 1940

College	First Term		Second Term	
	1939	1940	1939	1940
General College	9	16	6	6
University College	7	11	3	4
College of Science, Literature, and the Arts.....	958	895	404	421
Institute of Technology.....	234	265	180	188
College of Agriculture, Forestry, and Home Economics	171	215	53	63
Law School	4	5	3	2
Medical School	293	283	265	264
Department of Medical Technology.....	24	31	22	19
School of Nursing.....	413	421	413	386
Department of Public Health Nursing.....	109	118	89	87
School of Dentistry.....	67	36	36	23
School for Dental Hygienists.....	5	7	2	3
College of Pharmacy.....	24	21	20	15
College of Education.....	1,401	1,418	462	425
School of Business Administration.....	107	116	81	73
Graduate School	1,906	1,848	1,102	1,020
Total collegiate	5,732	5,706	3,141	2,999
Nursery School and Kindergarten.....	34	41	.....	.....
University High School.....	113	110	.....	.....
Per cent of increase or decrease (total collegiate)	-0.2†	-0.5§	+7.7†	-4.7§

† As compared with 1938.

§ As compared with 1939.

Registration in the second term is now about 50 per cent of the registration of the first term as contrasted with the 40 per cent at the end of the last biennium.

Respectfully submitted,

THOMAS A. H. TEETER, *Director*

DIVISION OF LIBRARY INSTRUCTION

To the President of the University:

SIR: I submit a summary report of the Division of Library Instruction for the biennium 1938-40.

Registration.—The division completed its twelfth year on June 30, 1940. During the biennium, 139 students (62 in 1938-39 and 77 in 1939-40) completed the full year of library training and received the degree bachelor of science, or certificates from the colleges in which they were registered. The total number of graduates of the division to July 1, 1940, is 659. The enrolments in the regular academic year were 119 in 1938-39 and 143 in 1939-40. Students came from eleven different states. In 1938-39, the number entering the division with college degrees was 42 (4 with the M.A. degree); in 1939-40, the degree holders were 78 (one with the Ph.D. degree). Forty colleges and universities and eight teachers colleges were represented.

As usual, the largest registration was from Minnesota (103 in 1938-39 and 121 in 1939-40). Several points worthy of consideration are indicated. First, is the large registration itself. In part this may be accounted for by the broad educational policy of the state and the University in admitting to almost any course in the University anyone who meets the educational requirements for the course, without much consideration of personal qualifications or the chances of future employment. The widening geographical range of entrants indicates, on the other hand, that the reputation of the division for the kind of instruction it professes to give is becoming more widely and more favorably known. The proportion of students who have completed a full college course before entering the division is also increasing. This is a distinct advantage; it enables the division to take more for granted concerning the general cultural background of its students, and consequently permits confining the classroom and other work of the division more closely to its particular field; and it greatly increases the chances of employment for the graduates. Insistence on longer periods of training in most special fields is becoming more general, and those preparing to become librarians cannot safely ignore the tendency, even if it is not entirely fair in all individual cases. The division cannot compel prospective employers to change their attitudes, especially when our graduates are in competition with others with a longer period of professional training.

Summer Session problems.—The Summer Session brings its special problems. Due largely to varying local and state policies regarding school libraries, it has not been possible to correlate the Summer Session courses as closely with the regular curriculum as would be desirable. The instructional staffs in the summer are excellent, but the enrolment, 216 and 167, respectively, in the first half of the 1939 and 1940 sessions, is unduly large for the size of the teaching staff. The short terms make crowded programs inevitable, and the fact that some of the students are taking the work under virtual compulsion to meet legal requirements makes satisfactory work difficult. On the other hand, an increasing number of Summer Session students is showing interest in continuing professional training in this field. For some time it will probably be impracticable to give an entire year's work in consecutive summer sessions, but it is eminently desirable that the present desultory sequence of courses be abandoned as soon as possible, so that at least one or two quarters of the regular course may be so completed.

Staff needs.—An increase in the regular teaching staff of the division is badly needed and may at any time become absolutely necessary if the division is to be maintained. Too much of our instruction is necessarily done by members of the University of Minnesota staff or prominent staff members of the libraries of St. Paul and Minneapolis. They are excellent instructors, most of them of national reputation in their field, but the time and effort they give the division is usually out of proportion to the payment they receive for it. In the case of the University Library staff, they receive nothing additional and are forced to do on their own unremunerated time much of the work involved in this instruction. Moreover, there is no assurance that the successors of our present part-time members of the faculty will have the time, the inclination, or the teaching ability needed to carry on as now.

There is a growing demand from school officials for a greater variety of courses dealing with the school library field as well as for more training in the conduct of school libraries. The College of Education recognizes this need and is willing to co-operate with the Division of Library Instruction in providing this work. It cannot be done without at least one additional instructor. In a recent study of teaching conditions throughout the University, the average number of class hours per teacher of the division was far above the university average. In instructional cost per student only the General College and the Department of Ophthalmology and Otolaryngology and the Department of Philosophy were lower.

Alumni association.—The graduates of the division several years ago organized a divisional Alumni Association which has been active in the interests of the division in establishing loan funds, and published in 1939 a *Directory of Graduates, 1929-1938, of the Division of Library Instruction of the University of Minnesota*. The association is now engaged in a study of the desirability of asking that the requirements for admission to the division be raised from three years of college work to the completion of a full college course, as is now required in many state university library schools, including those of California, Illinois, Michigan, and Wisconsin.

The establishment of a quota for applicants outside of Minnesota has also partly relieved us of the care of the occasional prospective students not poor enough to reject within our standards, but not desirable enough to be accepted by the library schools to which they have previously applied for admission.

Respectfully submitted,

FRANK K. WALTER,

*University Librarian and Director,
Division of Library Instruction*

INSTITUTE OF CHILD WELFARE

To the President of the University:

SIR: I submit the report for the Institute of Child Welfare for the biennium 1938-40.

Change in support.—This biennium marked the termination of the Rockefeller grants for establishing and supporting the institute, and the assumption of the support of the institute at a somewhat reduced level by the University and the state. Nevertheless, the institute continues to function as an important research, instructional, and parent education center. With the termination of outside funds, a number of long-term research projects were brought to conclusion. Because of the great increase in the graduate and undergraduate students enrolled in institute courses, a heavy instructional load has fallen upon the staff. This need has been partially met by the rearrangement of staff programs.

Research program.—During the biennium, 35 new research projects were undertaken—a substantial increase over the previous biennium. These cover a variety of problems in the physical, mental, social, emotional, and educational development of the child. Of the new projects, two involve co-operation with the Department of Psychology, two with the University Testing Bureau, and one with the State Department of Education. The remaining thirty are institute projects.

The grand total of research projects started since the beginning of the institute in 1925, is 321, of which 212 have been completed, 33 are now in progress, 64 have been dropped, 11 have been combined with other projects, and one has been divided into two or more projects. Of the projects completed there has been full publication for 153, partial publication for 3, 5 are in press, 40 are in preparation for publication or in thesis form, and 16 have been completed without publication. Of all research projects 44 are still active, as of June 30, 1940. Of these, 36 are institute projects, and 8 involve co-operation with the following: Anatomy 3, Dentistry 1, Sociology 1, State Board of Control 1, Physical Education for Men 1, and the State Department of Education 1.

The Nursery School and Kindergarten.—The Nursery School enrolment in 1938-39 was 40; in 1939-40, 44. The Kindergarten enrolment was 15 in 1938-39 and 19 in 1939-40. During the first terms of the Summer Sessions of 1938 and 1939 these schools were also in session.

Instruction and enrolments.—During 1938-39, the total enrolment in all institute classes offered on the campus was 2,199; in 1939-40, 2,540, both figures representing a substantial increase over the previous bienniums. During the biennium, 82 students completed the curriculum in nursery school, kindergarten, and primary education and received the B.S. degree in the College of Education. Two students received the Ph.D. and 15 the M.A. degree, with majors in child welfare.

Parent education.—The parent education program has continued in line with the policies described in previous reports, except that the work in rural areas has been taken over by the Agricultural Extension Division. The table summarizes these activities.

GENERAL SUMMARY OF PARENT EDUCATION ACTIVITIES, 1938-40

	1938-39		1939-40	
	No. Groups	Enrolment	No. Groups	Enrolment
Extension courses				
Credit	8	118	9	129
Correspondence study courses				
Credit		21		31
Noncredit		363		142
Study groups				
Minneapolis	21	469	10	249
St. Paul	8	181	9	338
Other places	3	66	0	
Lecture series				
Minneapolis	16	954	6	2,238
St. Paul	1	511	3	638
Agricultural extension	193	2,949	0*	
Preparental groups (schools).....	16	3,545	9	1,744
Grand total		9,177		5,509

* This work previously partially supported by the Institute of Child Welfare, was taken over completely by the Agricultural Extension Division in July, 1939.

Radio.—The weekly institute radio program known as the “Betterson Family” was continued over WLB, the university station, and was rebroadcast during 1938-39 over WEBC in Duluth; in 1939-40 the name of the program changed to the “Lively Family.”

Parents' Consultation Service.—The Parents' Consultation Service which assists parents in problems of child adjustment and family relationships through diagnosis, interviews, and recommendations cleared 75 cases in 1938-39, and 52 cases in 1939-40.

Publications.—During the biennium, 34 scientific and professional articles were published and 7, now in press, were prepared. Five monographs were published by the University of Minnesota Press in the Child Welfare Monograph Series as follows: *Parent Education: a Survey of the Minnesota Program*, by Edith A. Davis and Esther McGinnis; *The Activity of Young Children during Sleep*, by Chester Roy Garvey; *The Family Meets the Depression*, by Winona L. Morgan; *Some Factors Affecting Resumption of Interrupted Activities by Preschool Children*, by Evelyn Katz, and *The Effect of Praise and Competition on the Persisting Behavior of Kindergarten Children*, by Theta Holmes Wolf. One book, *Nursery School Education*, by Josephine C. Foster and Marion L. Mattson was published by the D. Appleton-Century Company, and the manual for *Minnesota Preschool Scale*, by Florence L. Goodenough, Katharine M. Maurer, and Marvin J. Van Wagenen, was published by the Educational Test Bureau. In addition, a number of popular articles were published by various members of the staff.

Other activities.—During the biennium the institute participated in many exhibits, of which the most important were those at the State Fair. In 1938-39 and in 1939-40, 319 popular and scientific lectures were given by members of the staff. Traveling libraries were supplied to study groups as in previous years.

Members of the institute staff, co-operating with the State WPA office in the conduct of the emergency nursery school and parent education program fostered by the federal government, participated in the White House Conference on "Children in a Democracy," called by the President of the United States, and through consultation and advice, assisted many private and public agencies in the field of child development and child welfare.

The results of researches conducted by the institute in the past, which are rapidly finding their way into the technical literature and the textbooks, are becoming available to students throughout the whole country. Former students with Minnesota training are not only serving the state of Minnesota in many capacities, but are giving effective service over the entire country.

Respectfully submitted,

JOHN E. ANDERSON, *Director*

COMMITTEE ON EDUCATIONAL RESEARCH

To the President of the University:

SIR: I beg to report for the Committee on Educational Research for the biennium 1938-40.

The members of the committee during the biennium were as follows:

Frederic H. Bass, professor of municipal and sanitary engineering and chairman of the Department of Civil Engineering; F. Stuart Chapin, professor, chairman, Department of Sociology, and director of the Graduate Course in Social Work; Walter C. Coffey, dean and director of the Department of Agriculture; W. S. Miller, acting dean of the Graduate School; Everett Fraser, dean of the Law School; Edward M. Freeman, dean of the College of Agriculture, Forestry, and Home Economics; Palmer O. Johnson, professor of education; William F. Lasby, dean of the School of Dentistry; Samuel C. Lind, dean of the Institute of Technology; Irvine McQuarrie, professor and head of the Department of Pediatrics; Donald G. Paterson, professor of psychology; Russell A. Stevenson, dean of the School of Business Administration; John T. Tate, dean of the College of Science, Literature, and the Arts; Malcolm M. Willey, university dean and assistant to the president; T. R. McConnell, professor of education, *chairman*.

The services of the committee have been utilized by many divisions of the University. Investigations have been conducted in six colleges and in several of these divisions studies have been made in from two to four departments. In addition, the committee has conducted eight studies of university-wide significance. In all, approximately 25 investigations were completed or begun during the biennium. Furthermore, members of the staff of the committee consulted with many individuals and departments in the University on problems of statistical analysis or the conduct of less extensive studies than those conducted under the committee's direct auspices.

Basic studies of state-wide significance.—The report of the committee for the last biennium emphasized the importance of undertaking, in addition to projects of peculiar importance to individual departments or divisions, researches or studies of broad significance to the University as a whole. It suggested, furthermore, that these studies should be formulated and conducted over a period of time sufficient to secure worth-while results. Acting upon that policy, we have set up a series of investigations bearing upon the ultimate development of a state-wide program of higher education more adequately geared to students of different levels and types of aptitudes and to the needs of the commonwealth. One of the most significant of these studies is that of the educational and vocational status, approximately one year later, of the graduates of Minnesota high schools in June, 1938. Data have been secured for more than 22,000 individuals in more than 90 per cent of Minnesota high schools. This unusually satisfactory return was made possible by the co-operation of the State Department of Education and the interest of high school principals in the problem.

The data are still being analyzed, but the study has already revealed that approximately 50 per cent of the graduates who ranked in the upper one third of their classes were not attending any type of higher institution one year after high school graduation. This is a wastage of human resources which the state cannot well afford. The high school principals who supplied the data asserted that approximately one third of these high ability students were unable to attend higher institutions because of limited financial resources. When the returns are com-

pletely analyzed, the results should be presented to the people of Minnesota with the hope that they will take steps to make attendance at higher institutions for these able students possible.

The survey also includes information on such matters as the relation of socio-economic status of parents, economic level of area of residence, and proximity of higher institutions, to college attendance. Through this survey and related studies more information concerning educational and vocational status will probably be available for the high school graduates of Minnesota than for those of any other state. No funds were at hand to follow up the students who were unemployed one year after graduation or to study the occupational history of those who did secure jobs. However, the committee has made an attempt to survey the educational adjustment of the graduates who attended higher institutions in Minnesota. Five thousand freshmen in the several colleges of the University of Minnesota, in six teachers colleges, and in ten liberal arts colleges filled out and returned to the offices of the committee an extensive schedule on which they gave reactions to several important phases of their first year in college. They made some evaluation of their high school training. They indicated their educational and vocational plans and the certainty of their occupational choices. They stated their general reasons for college attendance and specific reasons for attending the particular institution in which they were enrolled. They expressed reactions to many aspects of the personnel service of the university or college of their choice. They specified the particular outcomes they most wanted to secure from college and also the extent to which they considered the first year of college had contributed to these purposes. They made certain evaluations of the courses of the first year. Finally, they expressed their opinions of the general value of their educational experiences. These data are so extensive that the analyses are still proceeding, but the tabulations which have already been made raise a series of important questions concerning the adjustment of college students and the adequacy of college personnel, curricular, and instructional programs. There is no disposition to suggest that students' reactions constitute in every instance or even in most instances an adequate evaluation of institutional resources and activities. Nevertheless, the attitudes and points of view of students are significant factors in the success of any educational enterprise.

Most of the institutions which participated in the survey of student opinion at the end of the freshman year also co-operated in securing from those who returned for the second year a much shorter schedule of information and reactions. We thus have available an extremely interesting and useful survey of student opinion covering two years of college work.

The committee has also circulated a schedule among students in the co-operating higher institutions who did not return for the second year or who withdrew or were dropped during the first year of residence. Studies of student mortality have not been particularly revealing, but it is hoped that this one will give more evidence concerning the real reasons for elimination.

From all these data we should be able to discover those points at which intensive studies of student adjustment and the adaptation of educational programs to student needs and characteristics could profitably be made. The ultimate purpose of these studies is to reveal the extent to which available types of higher education in Minnesota actually meet the needs of students differing widely in interests and aptitudes, and to emphasize the importance, on a state-wide basis, of differentiating education to the advantage of individuals and of society as well.

Student personnel studies.—The investigations reported above might well be classified as personnel studies. To them should be added seven others:

1. One important study is that of the experiences in the University of potentially gifted and scholastically superior students. Its purpose is to point the way to more specific experimental problems in the education of superior students. The present study, however, should reveal many points at which the institution could more adequately meet the needs of these people. Students who had entered as freshmen in the fall of 1936 and were still in school at the end of their junior year were called in for conferences. More than two hundred individuals were interviewed. They were selected according to two criteria: (1) those who ranked at the 90th percentile or above in their high school graduating class and their college aptitude test score; (2) those who had achieved a B average or better for their first three years. The interviews were designed to determine the degree to which these superior students had fulfilled their promise in terms of intellectual development, educational and vocational adjustment, and social and emotional maturity. Information was also secured concerning the kinds of aid and stimulation the students secured during their university careers and any needs which, if more adequately served, might have contributed significantly to their development. In all, twenty-four types of information were collected in the interview. These data are now being analyzed quantitatively and qualitatively.

2. One problem in the adjustment of superior students is their placement in college courses at a sufficiently advanced level to stimulate interest and high achievement. During the biennium, the committee has been exploring the possibilities of a study in the articulation of secondary and higher education. With the co-operation of secondary school officials, a subcommittee has made available to high ability students in certain Twin Cities high schools the opportunity to take final examinations prepared for elementary courses in university classes. When these students have made high scores on these tests, which has not infrequently occurred, members of the personnel staff of the University have adjusted their college courses to articulate them more closely with previous achievement. This is a promising project which should be developed more systematically and perhaps extended to more secondary school seniors.

3. The differential prediction of achievement in the colleges and departments of the University is an important phase of educational and vocational counseling of students. The tests of seven supposedly independent primary abilities developed recently by Thurstone have provoked widespread interest in their possible value for guidance. Under the joint sponsorship of the committee, the University Testing Bureau, and the College of Science, Literature, and the Arts, an investigation is under way to discover the extent to which these tests, in possible combination with other measurements of achievement and aptitude, are valuable in differential prediction of achievement in certain professional schools, and in the several major departments of the College of Science, Literature, and the Arts.

4. The Department of Journalism has asked the committee to investigate means of selecting students for the several curricula in newspaper work which the University offers. Although these sequences are offered principally in the one department, the positions to which they lead may involve very different activities, interests, and abilities. The committee approved an exploratory study which is now under way.

5. In co-operation with the offices which administer federal aid to students, the committee is conducting a follow-up study of students who have held NYA appointments at the University. The survey includes such topics as jobs held subsequent to NYA appointments; the relation between the nature of the NYA work and subsequent jobs; the assistance of NYA work in making a satisfactory vocational choice, obtaining later employment, and discharging the duties of subsequent positions. Other relevant data concerning financial resources and academic work are also requested of the respondents.

6. Earnings of university students for the year 1937-38 constitute the subject of an investigation which is nearing completion. This is made at the request of the university committee which is preparing a series of informational bulletins for prospective students.

7. Basic data for a study of the migration of college students have come to the offices of the committee, and will be analyzed in the near future. This project is the joint responsibility of the University Committee on Educational Research and the United States Office of Education, which made a similar survey about ten years ago. The investigation will provide information of the extent to which students attend higher institutions of all types outside their own states.

Social work education.—An extensive study of social work education is nearing completion. It is a job analysis of social case work in the state of Minnesota, and has been conducted over a period of two years in co-operation with the Department of Social Work. Data are being analyzed on (1) job activities; (2) need for knowledge on case work problems, processes, techniques, and resources in terms of its value to the worker; (3) the contributions to case work of other fields of knowledge including economics, sociology, political science, education, law, medicine, psychiatry, psychology, biology, anthropology, and religion; (4) problems on the job; (5) advantages of the worker's present job; (6) job satisfactions; (7) the worker's opinions; (8) the worker's point of view; and (9) personal factors relating to education, job experience, marital status, number of dependents,

salary, and other pertinent personal data. This investigation has already evoked widespread attention, and it is certain to be accorded national recognition, for it will be of great value in social work education everywhere.

Dairy and food technology courses.—There seems to be a constant demand for addition of courses in higher institutions. Colleges and technical schools, responding to pressure from industry, have set up highly specialized curricula to provide training for various occupations. Usually, these courses are organized without an investigation of the actual needs of the persons employed in these vocations. Dairy and food technology is a rapidly developing industry, and there is reason to believe that the University should provide training for its personnel. As a basis for determining the necessary curriculum, the committee was asked to co-operate in an investigation of the types of training the industry desired. The results, though tentative at the present time, are highly significant. They indicate that the companies in the field want college men trained in the fundamental sciences, and that specific vocational courses are probably unnecessary. It appears that the University is now equipped to train students adequately for the food industry, without adding further courses but by utilizing most efficiently those now available. Comparable studies should be made of the highly differentiated curricula and the demands for new specialized training sequences in other divisions of the University. It is a fundamental educational problem, and one with important financial implications as well.

Integrated introduction to secondary education.—The committee has been associated with a special committee of the College of Education in conducting an experimental program for the purpose of developing an integrated three-quarter course as an introduction to secondary education to replace the three separate courses now required. The course of study used in the experimental group was developed with attention to (1) the inclusion of the essential material formerly taught in the three separate courses, (2) the avoidance of duplication from one quarter to another, (3) the introduction of new material formerly omitted for lack of time, (4) the addition of demonstration lessons, individual case studies, and other means of early contact with pupils and school situations, and (5) stress upon the application of fundamental educational principles to practical teaching-learning situations. One of the important results is a new comprehensive factual examination, and one designed to measure the students' ability to apply what they have learned. A third test of attitudes toward educational problems and practices is under construction.

Dental hygiene studies.—A job analysis of the work of dental hygienists and a determination of the abilities which dentists, school officials, and other employers consider essential in dental hygienists form the core of a study which is being developed with the School of Dentistry. The results will be used as a basis for a partial evaluation of the two-year curriculum for dental hygienists.

Studies in physical education.—The studies in physical education and recreation in two Minnesota communities which have been conducted by members of the Department of Physical Education for Men for several years have been completed except for the analysis of a tremendous amount of valuable data. The Institute of Child Welfare and the Department of Sociology are co-operating in the tabulation and interpretation of the findings. They are particularly interested in the information concerning the development of children's play interests and activities, and in community and family relations in recreation.

Studies in course evaluation.—Colleges often introduce new courses and curricula, but less frequently attempt to appraise the outcomes. The General College

recently introduced four new core orientation courses, and soon thereafter asked the assistance of the committee in evaluating them. It seemed desirable to work intensively on two of these: Individual Orientation and Vocational Orientation. The purposes of the appraisal of the former were (1) to define the broadly stated objectives of the course so explicitly that relevant content and learning activities could be effectively chosen, and measures of achievement or growth could be devised; and (2) to determine the extent to which these objectives actually were attained. The purpose of the study in Vocational Orientation was to determine the extent to which the course assisted students in making more appropriate vocational choices.

Transfer in critical ability.—Do students trained in detecting fallacies in certain stereotypes transfer their critical ability to other popular misconceptions? The committee's investigation of this question revealed that students in the Orientation Course in the College of Science, Literature, and the Arts gain this facility to transfer their training, and that their growth in ability to do so is greater than that of control students. These results are somewhat more encouraging than those of the experiment reported below.

Studies in propaganda.—The assumption that training students in the techniques of propaganda will make them resistive to persuasive appeals has found wide currency of late. It is implicit, in fact, in the activities of such organizations as the Institute of Propaganda Analysis. This idea was submitted to experimental validation during the last two years in connection with studies on this campus conducted jointly by the University and the film evaluation project of the American Council on Education. Using persuasive films as the media of communication and persuasion, an investigation involving journalism students indicates that persons best able to detect and analyze propaganda techniques and appeals used in motion pictures are no more successful than others in resisting the effects of the films on their own attitudes. Furthermore, factual knowledge in the fields or on the topics related to the film content does not seem to be significantly related to the shift in attitude associated with viewing the moving picture. If other studies confirm these results, we must find other or additional means of fortifying students against persuasion.

Studies of writing ability.—The relative growth of ability in expository writing of students in laboratory and nonlaboratory sections of Freshman English in the College of Science, Literature, and the Arts was the principal subject of an investigation which involved several other related problems. The results reveal no significant difference in growth between students in the two types of sections, although both groups gained significantly in ability during the year. Other results of the investigation will be made the subject of a more extended report to the department. These include the relation of measured gains in writing to final course grades, the relation of knowledge of formal grammar to usage, and other matters related to emphases in instruction.

Examination studies.—The construction of examinations for use in selection of members of the nonacademic staff in connection with the University's civil service system has proceeded rapidly and successfully. At the present time, examinations have been built for forty-three classifications and are now being used or are ready for use by the Employment Bureau in the selection of qualified personnel. The basic data for tests in twenty-seven other classifications are now being analyzed. This program is unique among higher institutions. It is not only of great importance to the administration of this University, but it will undoubtedly set a pattern for the development of selective instruments in other large institutions.

A comparison of the relative values of course and comprehensive examinations in the College of Pharmacy will be one of the outcomes of a study which has been in progress for two years. Comprehensive examinations have been prepared for the sophomore and senior courses. These examinations will be compared with course grades as criteria for predicting success in the college from tests given at entrance and from other data on student achievement. One of the important by-products of the investigation is concerned with implications for the improvement of instruction which have grown out of the analyses of students' responses on the examinations.

The future program.—The chairman expects to recommend to the committee that its resources be concentrated in the near future on problems of differentiation of educational activities to meet diverse student needs, and to continuous study of the curriculum, particularly of means of developing a comprehensive program of general education for the University.

Respectfully submitted,
T. R. McCONNELL, *Chairman*

WORK-RELIEF PROGRAM

To the President of the University:

SIR: This report covers for the biennium 1938-40 the significant aspects of the student work projects supported by funds from the National Youth Administration with a supplement from the Executive Council of the State of Minnesota; and the professional and service projects of the Work Projects Administration that have been sponsored by the University.

NYA PROGRAM

Except for minor modifications, the policy and procedures under which the NYA program operates remain unchanged. The requirement of a citizenship oath was imposed upon applicants in 1938-39, but since the number of alien applicants at the University of Minnesota is negligible, this innovation was unimportant in its effects. The methods of determining NYA quotas and the policy governing the selection of the students has been described in detail in the biennial reports since 1932-34; this report is a continuation of the three that have preceded it.

Funds available.—The NYA funds available at any institution are based on a specified percentage of the registration on a given day of students between the ages of 16 and 25. Only those of this age span are eligible for assistance. The money allotment is determined by multiplying the number of students in the quota by \$15 per month for the nine-month period covering the academic year. This money may be expended in amounts varying between \$10 and \$20 a month per student. Prior to 1939-40, it was necessary to maintain an average expenditure of \$15 a month per student, but this requirement was then rescinded, thus permitting greater flexibility of appointment. The actual number of students appointed depends on the assigned earnings; if all are assigned at \$10 a month, the number on the roll will be twice as great as if all are assigned at \$20 a month. Actually the appointments are individualized as far as possible, and the numbers on the list fluctuate accordingly. No NYA funds are provided for summer sessions.

The 1938-39 student quota at the University was 1,097 (9.3 per cent of the registration on October 1, 1936) which, multiplied by \$15, gave a monthly allotment of \$16,455, or \$148,095 for the nine-month period.

The 1939-40 student quota was 1,161 (10 per cent of the registration on October 1, 1938) which meant a monthly fund of \$17,415, or \$156,735 for the academic year. A supplementary grant of \$705 for the months of October, November, and December, 1939, increased the allotments in these months to \$18,120 and raised the total for the academic year to \$158,850.

To supplement the federal funds provided by the National Youth Administration, the State Executive Council made a monthly allotment to the colleges of the state, of which the University's proportionate share in 1938-39 was \$2,930 (\$26,370 for the period) and in 1939-40, \$2,235 (\$20,115 for the period).

The aggregate funds available (state and federal) for the NYA program in 1938-39 were \$174,465; in 1939-40, \$178,965. For the biennium these total \$353,430.

These funds, as explained in reports of preceding years, are used to pay students for work assigned by the University and at prevailing campus rates. No undergraduate student may earn in any month from federal funds more than \$20. These earnings may be supplemented by \$5 a month from the state funds. Some-

what higher earnings are allowed graduate students. These NYA earnings should be regarded as necessary supplements to the students' own resources, without which they would be unable to remain in college.

Numbers aided.—During 1938-39, 1,444 students were given NYA appointments and in 1939-40 the number was 1,429. The applications received in 1938-39 totaled 2,228; in 1939-40, 2,018. Each year since the beginning of the program the number of applications has declined. This probably reflects a growing understanding among the high school authorities of the state and among students as well of the basis of selection employed by the University. Once economic need has been established, selection of students is from the upper half, academically, of high school or college classes. With limited funds available, students with "average or better" scholastic promise should be chosen. As this policy becomes more generally understood, there is a steady decrease in the number of applicants whose records place them in the lower half of their academic groups. Improved economic conditions have also reduced the pressure of applications.

The proportion of men appointed continues to exceed the proportion of women, reflecting probably the willingness of men to enter the University on narrower economic margins. In 1938-39, men constituted 72.2 per cent of the NYA appointees, women 27.8 per cent; in 1939-40, the corresponding figures were 71.9 and 28.1.

During 1938-39, 193 students cancelled their NYA appointments, and during 1939-40 cancellations totaled 169. Graduation during the year, illness, and inability to "make ends meet" even with NYA assistance were the three major reasons for cancellation. Because of the favorable selection at the outset, scholastic difficulty as a basis for cancellation is rare.

Scholastic ability.—A special study was made in 1940 of the scholastic achievement of 991 NYA students for whom records were complete during the spring quarter of 1938-39. Comparisons were made between the NYA group and non-NYA students. The honor point ratio of all students at the University in 1938-39 was 1.311. The honor point ratio of the 991 NYA students studied in the spring quarter of the same academic year was 1.973. The honor point ratio of the non-NYA students was 1.263. There were but 10 of the 991 NYA students with less than a C average and unless each of these had counterbalancing grades in earlier quarters to bring the average for the year to C or better, they would not be re-appointed since the university policy requires a student to maintain a C average throughout the year to be eligible for continued NYA assistance.

It is gratifying to find that as a group the NYA students maintained an average that was a hair's breadth short of a straight B. These results would also indicate that the work program has not interfered with scholastic accomplishment and that at the University a satisfactory balance has been achieved between the work requirements and the classroom. Here is an impressive argument in favor of some program of student aid. These NYA students are from homes where economic resources are limited as will be amply shown later in this report. Yet scholastically this is a group of superior accomplishment. Here are needy students who can profit by a college education, and they are clearly students who would not be in college in most instances were it not for the help that is provided by the National Youth Administration.

College, class, sex distribution.—The largest numbers of NYA students are found in the College of Science, Literature, and the Arts, the Institute of Technology, and the College of Agriculture, Forestry, and Home Economics. The age limitation cuts the numbers that might normally fall in the Graduate School and

TABLE I. DISTRIBUTION OF NYA STUDENTS BY COLLEGE, CLASS, AND SEX 1938-39, 1939-40*

Colleges	Biennial Year 1938-39												Biennial Year 1939-40																	
	1939§		1940		1941		1942		Other†		Total		1940		1941		1942		1943		Other†		Total							
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F						
Science, Literature, and the Arts	16	15	36	13	57	37	57	65	.....	.....	166	130	19	8	34	13	57	45	90	63	.....	.....	200	129		
Education	14	22	22	25	4	3	6	8	.....	.....	46	58	15	23	18	15	5	7	7	7	1	3	46	55				
Technology	38	0	48	0	39	2	57	0	182	2	35	0	43	1	47	0	61	186	1					
Agriculture, Forestry, and Home Economics	40	8	51	15	40	17	65	14	.....	.....	196	54	35	15	42	19	53	16	34	18	.....	.....	164	68		
General College	2	2	6	11	8	13	3	7	11	6	14	13				
Medicine	3	0	12	0	7	0	4	1	26	1	5	0	2	0	3	0	9	1	19	1				
Medical Technologists	1			
Business Administration	25	3	21	5	46	8	22	2	15	6	37	8			
Law	2	0	1	0	10	0	7	1	20	1	2	0	5	0	7	0	11	0	25	0		
Dentistry	3	0	3	0	0	0	4	0	10	0	3	0	0	0	3	0	4	0	10	0		
Dental Hygienists	0	1	0	0	0	0	0	1	0	2	0	1	0	3	0	4		
University College	2	1	0	1	0	0	0	0	2	2	1	0	0	1	1	1		
Pharmacy	1	0	3	0	2	0	4	0	10	0	1	0	0	0	5	0	6	0	12	0		
Graduate	14	4	14	4	14	7	14	7
Nursing	3	3	0	0
Total	146	52	203	70	159	59	204	90	14	7	726	278	141	57	170	64	180	68	222	89	15	10	728	288						
Total men and women	198		273		218		294		21		1,004		198		234		248		311		25		1,016							
Per cent	19.7		27.2		21.7		29.3		2.1		100.0		19.5		23.0		24.4		30.6		2.5		100.0							

* As of May 20, 1939, and May 15, 1940.

† Graduate, nursing, unclassified.

§ Class of.

the professional schools. As might be expected, the largest proportion of NYA students is in the freshman class and the smallest in the senior class. Table I shows the college, class, and sex distribution of the students for the two years of the biennium.

Residence of students.—The NYA program is nation-wide and, other things equal, a student might well be expected to accept its privileges in the state of his residence. Accordingly, at the University the aid is given largely to Minnesota residents, with some preference to students from adjoining states, especially if they are pursuing courses not available in those states. Table II shows the geographical distribution of the residences of the NYA students, 1938-39 and 1939-40. Approximately 95 per cent are Minnesota residents. These data are amplified in Table III. Within the state nearly every county is represented. In

TABLE II. GEOGRAPHICAL DISTRIBUTION OF NYA STUDENTS
1938-39, 1939-40*

Geographical Location	1938-39			1939-40		
	Men	Women	Total	Men	Women	Total
Minnesota residents:						
Non-Twin City	395	125	520	401	134	535
Twin City	287	143	430	292	145	437
Out of state students	44	10	54	35	9	44
Total	726	278	1,004	728	288	1,016

* As of May 20, 1939, and May 15, 1940.

TABLE III. DISTRIBUTION OF NYA STUDENTS BY STATES
1938-39, 1939-40*

State	1938-39			1939-40		
	Men	Women	Total	Men	Women	Total
Georgia	1	0	1	.....	.....	.....
Idaho	1	0	1	1	0	1
Illinois	2	0	2	.....	.....	.....
Indiana	0	1	1	1	0	1
Iowa	1	0	1	2	0	2
Massachusetts	1	0	1	.....	.....	.....
Michigan	2	0	2	2	1	3
Minnesota	682	268	950	693	279	972
Montana	2	0	2	2	0	2
New York	3	0	3	.....	.....	.....
North Dakota	8	5	13	5	3	8
Oregon .....	.....	.....	.....	1	0	1
Pennsylvania	1	0	1	.....	.....	.....
South Carolina .....	.....	.....	.....	1	0	1
South Dakota	4	2	6	5	2	7
Tennessee	1	0	1	.....	.....	.....
Washington .....	.....	.....	.....	1	0	1
Wisconsin	17	2	19	14	3	17
Total	726	278	1,004	728	288	1,016

* As of May 20, 1939, and May 15, 1940.

both years of the biennium Lake of the Woods, Rock, and Roseau counties were the only ones from which collegiate NYA students were not drawn. Rock County alone was unrepresented in either the collegiate or the School of Agriculture

groups in 1938-39; no county was unrepresented in the combined groups in 1939-40. In both years the largest representation is from Hennepin County with St. Louis County second, and Ramsey County third. The data on county distribution are clear proof that the program permeates the entire state effectively.

Student work assignments.—The justification of the student work program rests upon the efficient accomplishment of desirable work. At the same time caution must be exercised to make it certain that NYA students are not assigned to tasks that will displace workers who should normally be employed by the University upon its own funds. Such gains to the University as come through the work of the NYA group must be over and above the work that is done by regular employees. No NYA students are permitted to perform instructional functions, and the correction or grading of class papers and examinations is included in this category. At such an institution as the University of Minnesota there will be, however, in nearly every department, work that needs to be done, but for which the budget can make no provision. It is to such work that the NYA students are assigned. The students thus give impetus to the normal development of university activity; they serve to increase the momentum of university progress.

In general, the students are assigned to their work individually or in small groups. They work under the immediate supervision of a responsible staff member and they perform functions that are directly related to the work of this staff member. This in itself contributes to a closer relationship between staff and student, and also serves to make the NYA student feel that he is engaged on jobs that are worth doing. The students, in short, are integrated into the going program of the University and are not engaged on "made work" that has been "cooked up" merely because an NYA program came into being.

In November of 1939, the state office of the National Youth Administration made an elaborate survey of the college program throughout the state. Students were given opportunity to answer with complete frankness questions that relate significantly to the entire NYA program. At the University, 985 students gave answers, anonymously. Some of the questions—and the percentage distribution of replies is revealing—are pertinent to the question of student attitudes toward the work to which they were assigned:

"Do you like the work to which you are assigned?" At the University 88.3 per cent replied with an unequivocal "yes," which was a higher percentage than for the state as a whole. Only 3.7 per cent of the 985 university replies were a flat "no." Any project in which nearly 90 per cent of the workers like the work must be regarded as unique.

"If you could, would you change to another type of work?" Only 15.1 per cent answered affirmatively, 62.7 per cent said "no," and 21.2 per cent were doubtful. Even the expressed desire to change may not reflect discontent but ambition. There is, in fact, almost no evidence of job dissatisfaction on the NYA project.

"How well do you get on with your supervisor?" There were 99.3 per cent of the answers in the category "well." This indicates good relationships between student and staff member. There were only five cases reported of difficulty between supervisors and students, and three of these involved questions of the working schedule. Almost 90 per cent of the students indicated they would not change supervisors even if they had the opportunity to shift.

"Is your NYA work related in any way to your major studies?" There were "yes" answers from 59.6 per cent of the students, which was much above the answers for students in the state as a whole. It is, of course, impossible to match with 100 per cent exactness the interests of students to their NYA assign-

ment. Frequently students have no pronounced job interests upon entering the University; part of the educational process on the campus is in finding out for themselves what their interests are. It is a commendable fact that three fifths of all of the NYA students do feel that they work at tasks relating directly to their major interests. It does not follow that the other two fifths are not gaining from the NYA work which, with its regular schedule, its outlined responsibilities, and its definite duties, cannot fail to contribute to the development of good work habits. The creation of such habits, too, is an important part of the educational process.

A check list gave the students questioned in this study opportunity to indicate words that best described their work as they saw it. Of the 985 university students, 607 checked "interesting," 354 checked "suited to my ability," 331 checked "requires initiative," and 383 checked "will help in search for job." These checkings overwhelmingly outweighed responses that might be regarded as negative, of which "routine" was most frequent.

These replies do not adequately summarize the state office's comprehensive study, but they are a fair selection to indicate reasons for a faith in the importance of the NYA program and they do give evidence that justifies these federal expenditures.

Student work ratings.—In the last analysis, the program stands or falls as judged by the work the students do. Though the tasks to which they are assigned are important, unless the actual performance is satisfactory the program cannot be judged a success. Any engenderment of soldiering or development of "the world owes me a living" attitudes would constitute grave doubts as to the wisdom of continuing a federal student work program. Good attitudes toward work should be a by-product of university life, and programs running counter to such an objective could not be tolerated or defended. How satisfactorily the students perform, therefore, is a crucial consideration. To check upon this, each spring supervisors are requested to indicate a work rating for each NYA student who has served under them. A simple scale is used: A, superior; B, above average; C, average; D, inferior; F, so poor that the student might better have been dropped at the outset. The standard employed in appraising each student's work is the performance that would have been expected had the supervisor hired the student from funds of his own.

Table IV indicates the superior work performance of the NYA students.

TABLE IV. WORK RATINGS FOR FEDERAL AID STUDENTS, 1938-39, 1939-40*

Grade	1938-39						1939-40					
	Men		Women		Total		Men		Women		Total	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
A	355	48.9	129	46.4	484	48.2	376	51.6	159	55.2	535	52.7
B	252	34.7	105	37.8	357	35.6	248	34.1	103	35.8	351	34.5
C	109	15.0	38	13.6	147	14.6	86	11.8	22	7.6	108	10.6
D	9	1.3	6	2.2	15	1.5	16	2.2	2	0.7	18	1.8
F	1	0.1	0	0.0	1	0.1	2	0.3	2	0.7	4	0.4
Total	726	100.0	278	100.0	1004	100.0	728	100.0	288	100.0	1016	100.0

* As of May 20, 1939, and May 15, 1940.

In 1938-39 almost 85 per cent of the workers were graded as superior or above average; there was only one case of outright failure. In 1939-40, the general record is even better, with 87.2 per cent of the students in the superior and above-average class, although there were 4 cases at the other extreme. The women appear to have a slight advantage in the work ratings.

Schools of agriculture.—As in past years, a portion of the university NYA quota was reassigned during the biennium for use at the four schools of agriculture. Table V gives the school quotas. The actual money available for the student aid at each school is the NYA quota times \$15 a month plus the state supplement times \$5 a month. Within these funds, the school students were given aid in conformity with the same policies that governed the collegiate students.

TABLE V. NYA AND STATE AID QUOTAS, SCHOOLS OF AGRICULTURE, 1938-39, 1939-40

	NYA		State Supplement	
	1938-39	1939-40	1938-39	1939-40
Central School, St. Paul.....	40	45	17	12
West Central School, Morris.....	38	40	19	10
Northwest School, Crookston.....	38	40	19	10
North Central School, Grand Rapids.....	9	10	5	3
Total.....	125	135	60	35

In 1938-39, 247 students were aided at the schools—175 men and 72 women. All but 5 were Minnesota residents, and the nonresidents were all from South Dakota. In 1939-40, 244 students were assisted—179 men and 65 women, and all but 9 were Minnesota residents. One nonresident was from Pennsylvania, the others from South Dakota.

Work ratings of the school students were also highly satisfactory. In neither year was there an "F" reported. In 1938-39 all but 3.7 per cent of the students were rated "C" or better; in 1939-40, all but 2.9 per cent.

Since no sessions are held at the schools in the spring quarter, the quotas revert for use on the Main and Farm campuses.

The backgrounds of NYA students.—The student aid program now administered by the National Youth Administration had its beginnings in the state of Minnesota in the winter quarter of 1933-34. By the close of the academic year 1938-39, the project had been in operation at the University for seventeen academic quarters, or nearly six years. A cumulative summary of the program seemed desirable at that time and it was undertaken. A summary of the results is given here. (For more detailed statement see "Backgrounds of College NYA Students," Malcolm M. Willey and Dorothy G. Johnson, *School and Society*, 50:252-56, August 19, 1939.)

From January 1, 1934, to the close of the academic year 1938-39, 4,681 collegiate individuals have been recipients of the federal assistance at the University of Minnesota. (The schools of agriculture are not included in these summary figures.) Of these, 3,336 (71.3 per cent) were men and 1,345 (28.7 per cent) were women. From the outset, women students have profited relatively less from the NYA program than have men.

Family size and resources.—The NYA assistance is for youth from families whose resources are so limited that without the aid it would be impossible for the sons and daughters to attend college. Table VI shows the number of dependents in the families from which the students were drawn. This should be read as

follows: in 278 cases the student himself was the only dependent, which would mean that the family consisted of a father or a mother and the student; in 1,138 cases there was one dependent besides the student, which in most instances would mean a one-child family, with mother and father both alive, but might mean a widow or widower with two children, one of which is the student.

TABLE VI. NUMBER OF DEPENDENTS OF PARENT OR GUARDIAN IN THE FAMILIES FROM WHICH UNIVERSITY OF MINNESOTA NYA STUDENTS HAVE BEEN DRAWN, JANUARY 1, 1934 TO APRIL 30, 1939

Dependents	Cases	
	No.	Per cent
One	278	5.9
Two	1,138	24.3
Three	1,030	22.0
Four	796	17.0
Five	463	9.9
Six	193	4.1
Seven	108	2.3
Eight	47	1.0
Nine	22	0.5
Ten	11	0.2
Eleven	12	0.3
Twelve	4	0.1
Orphans	64	1.4
No family ties*	515	11.0
Grand total	4,681	100.0

* Includes all cases where the student is totally independent of any family for his economic support, that is, where he is entirely "on his own."

The largest single group of students is from families consisting of the parents and himself (24.3 per cent) with the three-dependents-family (parents and two children) a close second (22.0 per cent). That the NYA program has assisted students from larger families to attend college is shown from the fact that 35.4 per cent of the Minnesota NYA students are from homes with four or more dependents (typical: father, mother, and three children). When the data of Table VI are coupled with those on family income (Table VII), the need for some supplementary assistance if the children are to attend college is evident.

Table VI also reveals that 11.0 per cent of the students are entirely on their own resources in attending college; for such students, the NYA assistance is clearly important, even though the earnings from this source must be further supplemented. The group also contains 64 self-supporting orphans.

These data have implications in considering any theory of democratic education. It costs money to attend college, even a public institution. If the costs mount to a point that precludes attendance by students from families whose economic resources are limited by family size or by small earnings of parents or guardians, educational opportunities become associated with class and the democratic tradition in some degree breaks down. This is why the data on family dependency are important and become more so in conjunction with the data of Table VII on total annual income.

Of the entire group of students, 44.5 per cent came from homes in which the major breadwinner had an annual income of less than \$1,000.¹ About 70 per cent (69.2) of the students are from homes with an income of less than \$1,500. More than 85 per cent have parents earning less than \$2,000.

¹ Some attempt has been made to include a cash-equivalent figure for farm families.

TABLE VII. TOTAL ANNUAL INCOME OF PARENT OR GUARDIAN IN FAMILIES FROM WHICH UNIVERSITY OF MINNESOTA NYA STUDENTS HAVE BEEN DRAWN, JANUARY 1, 1934 TO APRIL 30, 1939

Income Group	No.	Per Cent
Less than \$1,000.....	2,085	44.5
\$1,000 to \$1,499.....	1,155	24.7
\$1,500 to \$1,999.....	756	16.2
\$2,000 and above.....	347	7.4
Not given*	338	7.2
Totals	4,681	100.0

* In the first months of the program these data were not obtained with sufficient exactness to include in the tabulation; certification by relief workers, for example, was accepted instead of a specific income figure. This accounts for the "not given" cases.

These data of Table VII are an effective answer, based on five and a half years of experience, to any criticism that numbers of students are receiving NYA help who do not need it. Families with incomes of less than \$2,000 and of the sizes indicated in Table VI can hardly maintain themselves and also have resources adequate to send their children to college. In normal times the problems of educating the children at the higher levels would be great; in periods of depression these problems are aggravated. Unless children from such families are to be deprived of higher education, aid for them in meeting their college expenses must come from some source, and it must be remembered that when business conditions are bad, it is increasingly difficult for students to help themselves by obtaining supplementary employment.

Further substantiation of these points is found in the occupational data of parents. Almost one fifth (18.2 per cent) of the total of 3,262 cases for which data are available, are from families where the breadwinner is on relief, unemployed, or working for WPA. If petty pensioners are added, nearly a quarter of the group is involved (aggregate 23.3 per cent). Here is clear evidence that the NYA program is touching students who need assistance in obtaining an education. If public assistance is not available for these students, what is the alternative? Again the democratic theory of education intrudes itself.

As might be expected in Minnesota, 18.6 per cent of the students are from farm families, a percentage that exceeds that for owners of small business enterprises (groceries, oil stations, etc.) or for employees in business and industry. The survey clearly demonstrates that the NYA aid is going into families at the lower end of the economic scale.

Duration of NYA appointments.—For what periods of time have the students been on the NYA rolls? Is there any indication that the students become dependent upon NYA and that a small group is carried along year after year? Or are the benefits spread? There is sometimes criticism that such programs as NYA destroy initiative and self-reliance.

Three academic quarters is the modal duration of appointment (27.1 per cent). The one-, two-, and three-quarter categories are naturally somewhat overweighted because of the appointments made during 1938-39, but the percentage figures drop sharply after the "three quarters" group. After nine quarters are passed (three academic years) the numbers are negligible. There is thus no evidence whatsoever that the NYA students as a group are favored by making them dependent on the program. Only one student had been on the list from the outset—a boy starting as a freshman and now going on with a medical education. The detailed figures, not included here, corroborate what has previously been stated: that NYA is

supplementary aid; no student could depend upon it solely for support during his college course. As it has worked out over the period of nearly six years, three academic quarters of NYA assistance is the optimum supplement, which in money terms would be an average of \$135 per student.

Reasons for cancellation.—Except during the first months of the program, a record has been kept of all cancellations of NYA appointments falling within the academic year. Students leaving school at the end of the academic year, for whatever causes—including graduation—are not counted in the tabulation. The largest single group of cancellations is for the purpose of taking another job. Presumably the new jobs either pay higher rates or permit greater monthly earnings than under NYA. That students drop the NYA appointments to obtain other work is in itself evidence that no general bad habits of “dependency” develop under the program—as is sometimes alleged.

Illness accounts for the next largest group of resignations (11.5 per cent), and the third largest number are for “financial” reasons, which means that the students are not able to supplement the NYA income, and hence must cancel. It should be repeated that no student can maintain himself at the University on \$15 or even \$20 a month; hence whatever is earned through the federal work-relief must be supplemented by other earnings, by borrowing, or by funds from home. About 10 per cent of the students who cancelled are not able to find the supplement, and drop out. In a few cases students are able to borrow for their education and cancel the federal aid. It should be recalled that under NYA the students must work for the money they earn; they are paid the prevailing student rates. In some curricula the academic schedules are so heavy that it is only with great difficulty that students can find the time for the academic requirements and the NYA work requirements as well. It is these students, especially, that seek borrowed funds as a means of conserving their time for academic work.

A miscellaneous group of cancellations includes widely divergent reasons, from marriage to death; removal from the city also falls here. The “dropped” category (only 38 names) contains scholastic failures, unsatisfactory work history, and rare disciplinary cases.

All these data point to the conclusion that while students appreciate the NYA assistance, the program by no means should be regarded as assuring an easy and comfortable road to higher education. Any idea that NYA students are a pampered and privileged group, with all worries removed, is obviously false.

Summary observations.—This brief review of facts pertaining to the 4,681 students at the University of Minnesota who have in seventeen quarters received assistance through federal work-relief programs (FERA, NYA) leads to these general observations:

1. The NYA program, as it works out, is more helpful in meeting the needs of men students, than of women students, judged by the relative number of appointments.
2. Over one third of the NYA students are from homes with four or more dependents.
3. The economic need of the NYA students may be judged from the fact that 70 per cent of the students are from homes where the breadwinner earns less than \$1,500 a year; in 44.5 per cent of the homes, the annual earnings are less than \$1,000.
4. Study of the occupational groupings of parents substantiates further the fact that the students are from lower economic classes; nearly one fifth of the students are from families where the breadwinner is employed on WPA or on relief.
5. Analysis of the fixed liabilities of the families (interest, insurance, etc.) further indicates the limited extent of the economic resources of the NYA students and the families from which they are drawn.
6. The NYA program is a supplementary program in that students must have some resources in addition to the NYA earnings if they are to remain in college. The largest single group of students has the NYA assistance for a period of three academic quarters. No dependency on NYA appears to develop.
7. The data for the 4,681 students raise sharply questions relating to the theory of democratic education. With rising educational costs, it becomes progressively difficult as one descends

the family earnings scale for youth to find the resources with which to enter and remain in college. All studies of scholastic accomplishment of NYA students, at Minnesota and elsewhere, show it to be high. There is every reason to believe that without the NYA assistance, large numbers of these successful students would be unable to complete their education. The alternative to some form of assistance for impoverished students of promise is education on the basis of ability to pay, which strikes at the very heart of democratic principles and tradition. The NYA, while it does not assure a college course to every promising young man and woman, is one factor making it possible for large numbers of students to continue into higher education who would otherwise be unable to do so.

WORK PROJECTS ADMINISTRATION

Nature of the program.—From the beginning of the WPA program (and earlier under CWA and FERA) the University has sponsored work projects supported by federal work-relief funds. These projects fall under two broad classifications: research projects and service projects, as described in the *Report of the President, 1936-38* (page 317). During the biennium the campus WPA program has continued with no fundamental changes in policy and with only such admin-

TABLE VIII. NUMBER OF SUBPROJECTS, UNIVERSITY WPA PROJECTS, 1936-40 (AS OF JUNE 30 EACH YEAR)

Project No.	Location	Number of Subprojects				
		1936	1937	1938	1939	1940
8108	Main campus	31	58	91	80	69
8108	Farm campus	18	18	18	27	32
	Total	49	76	109	107	101

TABLE IX. NUMBER OF WORKERS, UNIVERSITY WPA PROJECTS, 1936-40 (AS OF JUNE 30 EACH YEAR)

Project No.	Place	Number of Workers Employed				
		1936	1937	1938	1939	1940
<i>Main Campus</i>						
8108	Main campus research	140	215	328	304	296
8177	University Art Gallery .....	.....	.....	20	42	48
7046	University of Minnesota Hospitals	70	72	71	70	68
5829	University of Minnesota Hospitals— clerical .....	.....	.....	23	15	.....
2518	Municipal Reference Bureau	42	.....	.....	.....	.....
5769	University Library .....	.....	.....	80	79	73
6645	Testing Bureau .....	.....	.....	.....	9	8
7718	Animal colonies .....	.....	.....	.....	19	13
7835	Oak Street Laboratories .....	.....	.....	.....	3	13
	Total	252	287	522	541	519
<i>Farm Campus</i>						
8108	Farm campus research .....	.....	.....	.....	155	130
7499	Soil conservation .....	.....	.....	.....	1	2
7808	Agricultural experimental research .....	.....	.....	.....	23	18
	Total .....	.....	.....	.....	179	150
<i>District Wide</i>						
8141	Archeological excavations .....	.....	.....	.....	.....	1
	Total .....	.....	.....	.....	.....	1
	Grand total	252	287	522	720	670

istrative readjustments as have been required by federal regulation. The general administration of the projects at the University of Minnesota is centralized in the office of the university dean, with the actual day-to-day supervision and administration under a superintendent assigned by the Work Projects Administration. Both campuses are included under the one organizational set-up.

The importance of the WPA work to the University and the extent of the assistance that is received in furthering university activities was clearly shown in an exhibition held on the campus May 20 through May 28, 1940. A total attendance of 12,024 visited the exhibition and saw a representative selection of the university projects in actual operation.

Each year the campus WPA projects have also been represented in the comprehensive WPA exhibits at the State Fair.

TABLE X. HIGH AND LOW MONTHLY PAYROLLS, UNIVERSITY
WPA PROJECTS, 1938-40

Project No.		1938-39		1939-40	
		High	Low	High	Low
8108	Main campus research	\$29,967.92	\$25,564.07	\$26,545.97	\$11,849.13
8177	University Art Gallery.....	3,288.56	1,406.01	4,158.84	2,872.24
7046	University of Minnesota Hospitals.....	5,222.39	1,646.56	4,479.20	3,047.03
5829	University of Minnesota Hospitals— clerical	1,347.15	547.34	.....	.....
5769	University Library	6,286.79	4,962.05	5,118.54	3,932.83
6645	Testing Bureau	1,120.06	300.63	683.93	134.19
7718	Animal colonies	1,425.75	637.45	2,021.83	719.73
7835	Oak Street Laboratories	74.20	74.20	987.64	315.56
8108	Farm campus research	14,521.01	10,672.94	12,287.31	5,841.99
7499	Soil conservation	84.70	31.57	237.56	92.65
7808	Agricultural experimental research.....	908.06	908.06	1,856.23	992.24
8141	Archeological excavations .....	.....	.....	71.28	31.80

The University has continuously enjoyed most excellent co-operation with the district and state WPA officials in carrying forward the campus projects, which at all times have been developed and maintained in full conformity with university policy. Tables VIII, IX, and X give relevant data concerning the project for the biennium, and also contain many hints of the problem that will inevitably confront the University if at some future date the research assistance of the WPA should be drastically reduced or discontinued.

Respectfully submitted,

MALCOLM M. WILLEY, *University Dean and
Assistant to the President*

INTERNATIONAL RELATIONS BUREAU

To the President of the University:

SIR: I submit a report of the activities of the International Relations Bureau for the biennium 1938-40.

During this period the bureau has been more adequately housed in a suite of three rooms in Eddy Hall. The Cosmopolitan Club uses one of the rooms as an office, the bureau assistant another, while the third is used as a reading room and committee room by the International Relations Club, the Peace Council, the Chinese Students Club, and other organizations, and also by individual students. A useful library of books on current affairs, donated by the Carnegie Endowment for International Peace to the International Relations Club, and a number of newspapers and periodicals, provide helpful materials which are extensively used. The bureau assistant advises with organizations and individuals in the planning of programs and conferences and in the preparation of papers; he also aids the adviser for foreign students, Professor Asher N. Christensen.

Among the more significant contributions made by the bureau during the biennium the following may be mentioned:

1. The provision of office facilities and advice for the committees which organized and conducted the Labor Conference and the Conference on the Far East in 1939, and the Conference on Democracy in 1940.
2. Similar assistance to the students who participated in the Conference on American Foreign Policy at Milwaukee in 1939 and in the Mid-West Conference on International Relations at Winfield, Kansas, in 1940.
3. The arrangement of speaking engagements before campus and off-campus audiences for the bureau assistant and a considerable number of foreign and American students; (twenty-eight such engagements were filled during 1939-40, many of them at churches and high schools).
4. The preparation of several large maps for classroom use.
5. The completion of a survey of the curricula pursued and the results obtained by all foreign students at Minnesota during the period 1931-36.

In accordance with a recommendation made in the report to the president for 1936-38, a seminar room has been provided in the Library.

It is recommended that with the completion of the Coffman Memorial Union there be provided a Center for Foreign Students in that building. If this is approved it will be advisable to transfer the functions of the bureau related to the activities of student organizations to the Union, leaving the more definitely academic functions of assistance to teaching and research in the hands of the Committee on International Relations and the assistant in that field.

Respectfully submitted,
HAROLD S. QUIGLEY, *Chairman,*
Committee on International Relations

PUBLIC ADMINISTRATION TRAINING PROJECT

To the President of the University:

SIR: I submit a summary report of the activities of the Public Administration Training Project for the biennium 1938-40.

Purpose and organization.—This special project established by the University in 1936-37, with the financial assistance of the Rockefeller Foundation, to provide graduate instruction for present and prospective government employees in the field of administrative management, continued its operation in the biennium 1938-40 under the general supervision of an all-university committee representing the several colleges, schools, and departments most immediately concerned with its work. The members of the committee in 1939-40 were as follows:

William Anderson, professor and chairman of the Department of Political Science, chairman; Gaylord W. Anderson, professor and head of the Department of Preventive Medicine and Public Health; Frederic H. Bass, professor of municipal and sanitary engineering and head of the Department of Civil Engineering; F. Stuart Chapin, professor and chairman of the Department of Sociology and director of the Graduate Course in Social Work; Royal N. Chapman,¹ dean of the Graduate School; Edward M. Freeman, dean of the College of Agriculture, Forestry, and Home Economics and chief of the Division of Plant Pathology and Botany; Clarence C. Ludwig, associate professor of political science, chief of the Municipal Reference Bureau, and executive secretary of the League of Minnesota Municipalities; Horace E. Read, professor of law; Russell A. Stevenson, dean of the School of Business Administration; John T. Tate, dean of the College of Science, Literature, and the Arts; Lloyd M. Short, professor of political science and director of the Public Administration Training Center, secretary.

Graduate training and research.—The major activity of the project involves the training each year of a limited number of carefully selected graduate students for positions of an administrative nature in governmental agencies—national, state, and local. The students admitted are classified as follows: (1) recent college graduates without employment experience and (2) college graduates who are currently employed in governmental agencies and who have had not less than three years of experience in such employment. For the first group, the training period includes a year of full-time graduate study in residence and a year of internship experience with an appropriate governmental agency. The second group, on leave of absence from their respective employments, devote one full academic year and the first term of the Summer Session to their work.

Admission to the training program was restricted in both years of the biennial period to the recipients of pre-service and in-service fellowships awarded by the University on a competitive basis and to the research assistants in the Public Administration Training Center and the Municipal Reference Bureau. Several other students sought admission but none was found to be qualified. The enrolment in 1938-39 was 8 pre-service and 4 in-service; in 1939-40, 7 pre-service and 5 in-service. The student groups in both years represented a variety of fields of interest and experience in public employment, and all three levels of government.

The course of study of each student is planned in the light of his special interests, previous preparation, and the requirements of government service. A graduate seminar in the theory and practice of public administration is required, and a parallel course in administrative law is recommended. Approximately fifty courses offered by departments of the University were used each year in making up the study

¹ Deceased. Place filled by Professor W. S. Miller, acting dean of the Graduate School.

programs of the students enrolled. Instruction by members of the university faculty was supplemented by special lecturers and luncheon speakers drawn from the ranks of public administrators.

Internship training for 4 pre-service students in 1938-39 and for a like number in 1939-40 was arranged in appropriate agencies of the national government with the co-operation of the National Institute of Public Affairs in Washington, D.C. The other pre-service students were placed in regional, state, or municipal departments or they accepted suitable employment at the close of their year of resident study.

Research projects dealing with administrative problems of immediate concern to government agencies were undertaken by the pre-service students during their internship training and by the in-service students during their period of study in residence.

Of the 20 pre-service students who have been enrolled in the training program since its establishment and who have completed their internships, 17 were employed in governmental agencies at the close of the year 1939-40, and 16 of the 18 in-service students also were in public employment, a majority having received appointments to more responsible positions following the completion of their studies.

The reference library.—A reference library specializing in government documents, research reports, and periodicals, and containing more than 30,000 items is maintained as an activity of the Training Project in co-operation with the University Library and the Municipal Reference Bureau. This library, in addition to providing essential service to students and instructional staff engaged in the training program, offers reference and research facilities to an ever increasing number of persons from other departments of the University and public officials in the Twin City area.

Vocational guidance.—The staff of the Training Center undertakes to furnish information concerning employment opportunities in government service and civil service examination application blanks to interested students. Approximately 500 students from all departments and divisions of the University availed themselves of this service in each year of the biennium. A survey of University of Minnesota graduates employed in government service, 1928 to 1936, completed by the staff of the Center in 1939, revealed that approximately 66 per cent of such graduates had been, or were, in some form of public employment at the time the survey was made.

Financial support.—The initial foundation grant in support of the project, amounting to \$85,000 over a five-year period, expires June 30, 1941. In order to assure the continuation of the project beyond that date, the University applied to the Rockefeller Foundation for continued support for another four-year period, on condition that the University assume full responsibility for the instructional and operating costs of the project. The foundation generously complied with this request, subject to additional contributions from the University during the biennium of 1943-45. The new grant was accepted by the Board of Regents on April 12, 1940. It is the hope of the committee in charge of the project that interested individuals may be found who will assist the University in matching the foundation grant in 1943-45 and in providing permanent support for the project beyond that date.

Respectfully submitted,

LLOYD M. SHORT, *Secretary*

*Committee on Training for
Public Administration*

COMMITTEE ON A RECREATION CURRICULUM

To the President of the University:

SIR: Approximately eighteen months were devoted by a representative university committee appointed by the late President L. D. Coffman, to the determination of needs for recreation leaders and the examination of available courses which could be included in or adapted to a curriculum for the training of such leaders.

The special curriculum was established in the fall of 1938 in the College of Education under the supervision of a committee of which Professor C. Gilbert Wrenn was chairman. Other members of the committee were: Dean E. M. Freeman, Dean M. M. Willey, Professor C. W. Boardman, Professor T. R. McConnell, and Associate Professor Carl L. Nordly.

In December, 1938, the first national conference on the training of recreation leaders was held at the University of Minnesota. This conference was a direct outgrowth of recreation leadership developments at the University.

Numerous conferences between members of the committee and the State Department of Education were held to discuss certification. In the fall of 1939 the State Board of Education voted to approve the granting of a high school standard special certificate to students who complete the University Recreation Leadership Major Curriculum.

The curriculum was revised in the light of the first year's experience and approved by the College of Education faculty at its 1939 winter meeting.

The committee adhered to the policy of proceeding cautiously with admissions to the recreation curriculum. Major students in the curriculum have been carefully selected following examinations, interviews, study of recreation leadership experience and interests, and the quality of work at the University prior to application for admission.

In the spring of 1940 the committee recommended to the president that it be discharged from its function of the development of the curriculum and, further, that the curriculum be referred to the College of Education Curriculum Committee for continuance with the resources and facilities which are available at the University. The committee was discharged by the president at the close of 1939-40 in accordance with its recommendation. The Recreation Curriculum is now under the direct supervision and guidance of Dean W. E. Peik and the College of Education Curriculum Committee.

Respectfully submitted,

CARL L. NORDLY, *Chairman,*

Committee on a Recreation Curriculum

SPECIAL UNITS IN BEHALF OF STUDENTS

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STUDENTS' HEALTH SERVICE

To the President of the University:

SIR: I have the honor to present herewith a summary of the activities of the Students' Health Service during the academic years 1938-39 and 1939-40.

General student health conditions.—During the winter quarter of 1938-39 an epidemic of light influenza occurred. During this same period, also, a mild form of atypical pneumonia was seen, with the number of students hospitalized for pneumonia being about four times that of the average for the past few years. During the year 1939-40 there were no epidemics on the campus.

In spite of the generally favorable health conditions, four deaths have occurred in the Health Service during this biennium: one from chronic nephritis; one from a streptococcic pneumonia; one from an embolism following a fractured leg which occurred in a fraternity house fire; and one from a general septicemia. During the year 1938-39, 240 cases of influenza and 53 cases of pneumonia were hospitalized. Forty-two per cent of all the hospital admissions for this year were due to influenza, pneumonia, or other upper respiratory infections.

Farm campus health service.—The new Health Service Building on the Farm campus was ready for occupancy in the fall of 1939. Its facilities make it possible to provide much more adequate and satisfactory service for students on the agricultural campus than heretofore. The building is well equipped with an X-ray unit and laboratory equipment, which makes it possible to give complete medical care, with the exception of surgery.

Types of service.—To the enumeration of types of service, as it appeared in the *President's Report, 1936-38* (page 325) should be added a new item: a special diet table for students with diabetes, gastric ulcers, etc.

Periodic health examinations.—The place of the periodic health examinations in a university program, and its importance, were discussed in my previous report (1936-38, pages 325-26). Table I summarizes the examinations for the biennium, and shows the growth in the numbers given.

TABLE I. NUMBER OF COMPLETE PHYSICAL EXAMINATIONS GIVEN, 1936-40*

Year	Entrance	Periodic	Total
1936-37	5,408	3,342	8,750
1937-38	5,036	2,854	7,890
1938-39	5,245	3,759	9,004
1939-40	5,369	4,171	9,540

* Collegiate grade.

Medical care.—The Out-Patient Department of the Students' Health Service and the students' hospital provide medical care for students. During the biennium over 110,000 visits were made to the Health Service dispensary for medical care and advice (Table II). Exclusive of the students voluntarily seeking medical aid at the Farm Campus Health Service, 81 per cent of the students enrolled came to the Out-Patient Department voluntarily for medical consultations.

TABLE II. VISITS TO THE HEALTH SERVICE (MAIN CAMPUS) FOR MEDICAL ATTENTION*

Year	Number of Visits†	Average Visits per Student of Collegiate University Grade
1936-37	54,956	3.91
1937-38	55,969	4.06
1938-39	58,260	3.85
1939-40	53,212	3.48

* In this tabulation the calls made by students at the health services at the agricultural substations have not been included because in certain years the attendance at these health services is greatly affected by epidemics of contagious disease upon those campuses. The Summer Session figures also have been omitted.

† These totals do not include visits for physical examinations, dentistry, hospitalization, excuses for illness, contagious inspections, eye refractions, vaccinations, immunity tests, physiotherapy, laboratory, or X-ray services.

Hospital care of students.—In 1938-39, 1,405 students, and in 1939-40, 1,225 students were hospitalized in the students' hospital for an average length of stay of approximately five days (Table III). The increase in the number of students hospitalized in 1938-39 was due to the epidemic of influenza and pneumonia during that year.

TABLE III. STUDENT HOSPITAL CARE (MAIN CAMPUS)

Year	No. of Patients	Rate per 1,000 Students Registered	No. of Hospital Days	Av. Length of Hospital Stay per Patient in Days	Comments
1936-37	1,246	88.6	5,983	4.8	Mild influenza
1937-38	1,046	75.8	5,560	5.3	No epidemic
1938-39	1,405	92.9	7,353	5.2	Moderate epidemic of mild influenza
1939-40	1,225	80.0	6,134	5.0	No epidemic

Immunizations.—Immunizations against preventable, communicable diseases are not required for entrance to the University but are offered to all students who desire them.

Mental hygiene.—During this biennium, 439 new students have been seen in the Mental Hygiene Department. The service is rendered by one full-time psychiatrist, one half-time psychiatrist, and one part-time social worker. One hundred old cases were carried over from previous years for continued treatment. The total number of interview hours for the biennium was 1,527. Of the 439 new students seen in the Mental Hygiene Department, 159 were referred by Health Service physicians; 174 came voluntarily; 13 were referred by the faculty; 11 by counselors; 15 by the deans' offices; 30 by the Testing Bureau; 1 by the Speech Clinic; 16 by other students and friends; and the remainder by miscellaneous sources. The ratio of men and women seen in the Mental Hygiene Department is approximately the same as the ratio enrolled in the University. The majority of cases seen are mild emotional problems, not serious enough to be classified as mental illness, but of sufficient severity to affect the student's academic life.

Tuberculosis control.—The incidence of active tuberculosis among university students is very low. During the biennium only 38 cases of active tuberculosis were found through the routine examination.

Allergy.—The special Allergy Clinic conducted by one of the full-time members of the Health Service staff has continued to give students the best care for

allergic disorders. Studies on the results of the treatment of hay fever cases in the Health Service Allergy Clinic have shown the best percentage of cases obtaining relief of those reported from any clinic in the country.

The common cold.—Studies on the prevention of colds which have been carried on for the past four or five years have been continued. A carefully controlled study of the value of three different cold vaccines which have been recommended for the prevention of colds was made. Students receiving two of the vaccines had just as many colds as the control group during the two years of the study. One vaccine, which was given subcutaneously, produced a 25 per cent reduction in colds per person as compared with the control group. This reduction was so slight, however, that it does not seem of sufficient value to use routinely. Further studies on other methods of cold prevention are being continued.

Treatment of dysmenorrhea.—The studies on the cause and treatment of dysmenorrhea, which have been carried on at the Health Service for several years, are being continued.

Anemia.—One of the full-time members of the Health Service staff is making a study of the anemias in college students. Routine hemoglobin determinations done at the time of entrance physical examinations have shown that a large number of college women have moderate anemias. Each year a number of cases of rather severe anemias are seen in the Health Service, particularly in the women students. Many of these have been found to be true nutritional anemias due to a lack of the right kind of food. In other students the immediate cause of anemia has not been evident. This is of sufficient importance in this age group so that further studies will be carried on.

Special diet table.—In January, 1938, a special diet table was started at which students with diabetes, gastric ulcers, allergies, etc., can obtain the diet necessary for their health. The diet table is under the direction of a graduate dietitian who prepares all menus and supervises the meals served. Students who eat at the diet table are sent by a physician from the Health Service for some special medical reason. Three meals a day are served. Because students needing special types of diets find it impossible to obtain the type of food in the usual restaurant or dormitory dining room, the special diet table was provided. Since the service was started in January, 1938, 82 individual students have been cared for. The number of students who have been found to need special diets has increased as the facilities for such diets have become better known. During 1939-40, for the first time, a number of students needing reduction diets were sent to the special diet table. These were all students who were 40 per cent or more overweight. In two cases the obesity was so severe that it interfered with the social and academic adjustment of the student on the campus and also precluded the possibility of the student's ever obtaining a position when leaving the University. In all of these cases, under careful medical supervision and with no ill effects to the student, marked reduction in weight have been obtained. Students pay for their meals at the diet table on a cost basis. Table IV gives the kind and number of cases treated at this special diet table during this two-year period and the average number of patients served daily at the diet table.

Students needing advice on dietary problems but not requiring the controlled diet served at the diet table may be sent to the dietitian for instruction. Some students living in the city find it more convenient to have their meals at home, and these may go to the dietitian for instruction in figuring their diets, making substitutions, or planning lunches that may be conveniently brought from home.

Likewise, students who are served at the diet table are given instruction by the dietitian in the types of food which they need and how to select such diets when they are no longer in the University.

TABLE IV. SPECIAL DIET TABLE STATISTICS, 1938-40

<i>Kind and Number of Cases Treated</i>		
Type of Diet	Number on Diet	Percentage
Diabetic	23	28.0
Ulcer	21	25.6
Reduction	24	29.0
Experimental*	6	7.3
Allergy	3	3.7
Anti-anemia	1	1.2
Nephritis	1	1.2
Colitis	1	1.2
Supernourishing	1	1.2
Soft-sterile foods (jaw fracture)	1	1.2

<i>Average Number of Patients Served Daily</i>		
Month	1938-39	1939-40
October	5.0	6.5
November	4.8	10.5
December	3.2	8.8
January	8.8	13.7
February	11.7	14.5
March	8.3	12.3
April	6.5	16.4
May	8.0	19.6
June	8.4	16.9

* Experimental studies conducted:

1. Training table for basketball players, to determine the increased energy requirement of the players during training season.
Result.—The caloric requirement is almost twice as high during this season as normally.
2. Dietary treatment in a case of deep acne, to determine the value of a high carbohydrate, low fat diet as compared with that of a high fat, low carbohydrate diet.
Result.—Patient showed much improvement when on a high carbohydrate, low fat diet.

Examinations of applicants for nonacademic positions.—In the spring of 1938 the Board of Regents enacted the requirement that all applicants for nonacademic positions on the regular payroll be given a physical examination before employment. The Health Service was asked to conduct these examinations. A complete physical examination, including a tuberculin test, Wassermann test, and, in some cases, an electrocardiogram, is given. A report of the physical fitness of the applicant for the particular position for which he is being referred is then sent to the University Employment Bureau. The examinations are done by the regular staff of the Health Service and are similar to the complete health examinations which are given university students. During the biennium 500 applicants for positions on the nonacademic staff were examined. Of the 500 examined, 234 had positive tuberculin tests and therefore were required to have an X-ray of the chest. In 31 cases, electrocardiograms were done. Only two cases were found to be physically unfit for employment: one a case of active pulmonary tuberculosis, and the other a case of Hodgkin's disease.

Housing survey.—In 1938-39 President Ford appointed a committee of which Dean Harold S. Diehl, of the Medical School, was chairman, to make a survey of

students' rooming houses. This committee asked the Health Service to take the responsibility for the survey. During 1939-40, with the aid of graduate students in engineering and social work, a comprehensive investigation of 427 rooming houses in the vicinity of the Main campus and the Farm campus was made. These included the fraternity and sorority houses, Pioneer Hall, the co-operative cottages, Sanford Hall, and the dormitories on the Farm campus. Detailed information was obtained about the sanitary and safety conditions in these houses, as well as information pertaining to conditions which contribute to the social welfare of the student. On the basis of the information obtained from this survey, each house was given a rating which will enable the Housing Bureau to guide students in their selection of places to live.

TABLE V. UNIVERSITY FARM HEALTH SERVICE: OUT-PATIENT DEPARTMENT

Year	Medical Attention	Total Immunizations: (Smallpox Vaccination, Diphtheria, Scarlet Fever Immunizations, etc.)	Total Services Rendered*
1936-37	4,702	1,771	6,473
1937-38	4,426	2,009	6,435
1938-39	4,743	1,840	6,583
1939-40	5,150	1,567	6,717

* These totals do not include visits for physical examinations, contagious disease inspections, eye refractions, or excuses for illness.

TABLE VI. STUDENT HOSPITAL CARE (FARM CAMPUS)

Year	No. of Patients	No. of Hospital Days	Average Length of Hospital Stay per Patient in Days	Comments
1936-37	272	1,108	4.1	No epidemic
1937-38	260	1,296	5.0	Mild influenza
1938-39	256	1,089	4.3	
1939-40	238	1,039	4.4	

Farm campus.—The new Health Service Building on the Farm campus has made possible an increased amount and better type of service to the students on that campus. In the past the Health Service on the Farm campus has served largely the students in the School of Agriculture; the college students came to the Main campus for Health Service care. During 1939-40 approximately 40 per cent of the visits to the Health Service on the Farm campus were made by college students.

Respectfully submitted,

RUTH E. BOYNTON, *Director*

DEAN OF STUDENT AFFAIRS

To the President of the University:

SIR: I herewith submit my report, covering the activities of the office of dean of student affairs, together with a brief report on the activities of the student body, for the years 1938-39 and 1939-40.

Student morale.—There has been an appreciable improvement in the general morale of the student body during the last two years. The larger portion of the student group has been serious minded, thinking and acting constructively in working out their own problems and their relations to the University. The immature and unthinking group is still here, but in my judgment their number is slowly decreasing compared with the increase in the total number of students. This group consists largely of those who are not adapted to college—those who have not matured sufficiently to meet or carry the responsibility for themselves and their own actions.

Office contacts.—During the last two years there have been 21,675 office conferences, including repeats, with students, parents, and others seeking advice and assistance in connection with student problems. In the cases of students in doubt as to their major interests, the office co-operated closely with the counselors or deans of the various colleges, and the Testing Bureau, arranging for conferences between the student and the college or bureau.

The office is in close touch with the Students' Health Service, receiving from it notices of every hospital case, and visiting each case at least once a week.

The office has given much time to its work with landladies and their men lodgers. Through the Lodgers' League efforts are made to build a social life for this group of rooming house students; also to build a participation in the intra-mural sports life.

The Social Co-ordinating Committee has been built up by this office, in co-operation with students and the dean of women, and a member of this staff has served as secretary in order that there might be a focal point for contact and help.

Student loans.—The authorizing of student loans—from the regular university loan funds, also loans from the special funds, Rotary, Charles Goodnow Masonic, Zelle Nicholson Mills, and the Householders' Funds—are all handled in this office. Audits show that in the case of the special funds there has been a turn-over of twelve times the total principal of the three main funds, which is nearly \$15,000.

The total loans may be summarized as follows:

1938-39: from university funds, \$32,955.73 to 324 students
from special funds, \$9,180.95 to 207 students
1939-40: from university funds, \$31,009.42 to 303 students
from special funds, \$7,631.55 to 195 students

Office activity.—Students, in order that they may hold student offices, or participate in activities bringing them before the public as representatives of the University, must maintain a certain scholastic average. This problem of eligibility is a function of this office, as well as approval of advertising appearing on the bulletin boards of the campus and the supervision and preparation of the annual scholastic reports, and comparison of fraternities, sororities, dormitories, co-operative houses, and other closely knit student groups.

Student organization accounts.—Another important piece of work handled by the office of student affairs is auditing all student activity accounts: fraternities, parties, and other activities where fees are collected. The auditing is actually sec-

ondary in value to the duties of advising and counseling. This work in its present development is comparatively new. In the case of all fraternities it is voluntary. It has become so well thought of, that there is a waiting list most of the time, due to lack of staff and of space. This work is at present on a self-supporting fee basis.

The following tabulation covering the student organization accounts gives a picture of the scope of this work.

STUDENT ORGANIZATION ACCOUNTS, 1933-40

Year	Period	Deposited Receipts	Disbursements	Current Yearly Balance	Beginning Balance	Ending Balance on Deposit
1	1933-34	\$116,260.97	\$111,276.74	\$4,984.23	\$13,697.66	\$18,681.89
2	1934-35	130,778.82	127,978.94	2,799.88	18,681.89	21,481.77
3	1935-36	136,854.22	130,990.95	5,863.27	21,481.77	27,345.04
4	1936-37	150,945.98	148,457.44	2,488.54	27,345.04	29,833.58
5	1937-38	159,180.86	158,261.16	919.70	29,833.58	30,753.28
6	1938-39	185,988.15*	189,746.75*	-3,758.60*	30,753.28*	26,994.68*
7	1939-40	162,118.28	161,321.64	796.64	26,994.68	27,791.32

* Higher receipts, greater disbursements, and lower ending balance on deposit in this year occasioned by clearance of securities and subsequent gifts of approximately \$30,000 to the University.

In the first year there were handled through the fund a total of 61 accounts representing 130 activities or functions. At the time of the last biennial report in 1938 there were registered on the books of the Student Organization Fund 93 different organizations or activities. They represented 176 activities or functions of on-campus organizations. At the present time there are listed on the records of the Student Organization Fund a total of 123 different organizations or activities. They, in turn, represent 219 different activities or functions of on-campus organizations.

Discipline problems.—In connection with the problem of discipline I wish to call attention to the fact that serious cases for discipline are few compared with the size of the student body, though there has been a rather steady increase in connection with improper use of fee statements in cases where students have an advantage over the general public, such as football, student concerts, and summer session social affairs. There is also an increase in forgery involving the loan of books from the library. There has been an increase in the stealing of student books on the campus and selling them. It is my judgment that the above mentioned cases can only be checked and controlled by a proper system of student identification. These problems cannot be solved by mere signature checking.

Student organizations.—There are on the campus 297 student organizations recognized by the Senate Committee on Student Affairs, roughly classified as follows:

- Groups whose chief purpose is service to the University or college
- Fraternities and sororities—social and professional
- Religious and racial groups
- Discussion groups
- Political groups—campus, state, and national

The outstanding work by the All-University Council this past year was the preparation of a report on the need of a system of student identification. This report represented a study carried on over several years, and it has already received administrative recognition.

The Student Board of Publications consists of elected representatives of the students, a faculty representative of the president, the chairman of the Department of Journalism, and the dean of student affairs. This board has direct supervising power over all student publications of an all-university character. Its work has been constructive and valuable. In general, student publications have had two successful years. *Ski-U-Mah*, which has in the past supposedly been a humor magazine, and as such has many times been a discredit to the University, had a change in editorial management during the year, and also in purpose. It is to be a special feature magazine in the future.

Social life.—An effort is made to bring to all students a definite form of social life. This is being developed through the efforts of the Social Co-ordinating Committee, the Lodgers' League, Pioneer Hall, Sanford Hall, Powell Hall, the Y.M.C.A., the Y.W.C.A., the Minnesota Union, and other recognized student groups. The main part of the student body does not indulge in an undue amount of social activity. It is true that there is a certain group which does. Social fraternities are coming more and more to realize that they have definite responsibilities to the University, as well as to their members. They are coming to this office to talk over their problems with increasing frequency. This is also true of their interested alumni.

Respectfully submitted,

EDWARD E. NICHOLSON,

Dean of Student Affairs

INTERFRATERNITY COUNCIL

To the President of the University:

SIR: I submit, herewith, my report as adviser to the Academic Interfraternity Council for the past biennial period, 1938-40.

During the past two years the council has enjoyed increased interest and support of its purpose, that of strengthening each social group in its relationship with the University, the fraternity system, and with its individual members. The council has carried on many of the established projects which have been mentioned in previous reports and has inaugurated several new projects in its effort to improve fraternal organizations. During the past two years, as adviser, I have attempted to perfect and strengthen those projects already inaugurated rather than to introduce many new projects to the list of activities of our council. The program of our undergraduate council has received considerable publicity and has caused numerous inquiries from other college administrators throughout the country.

Scholarship.—At the end of the college year, 1937-38, the academic fraternity men's average was 1.16. The average of academic fraternity men remained at approximately this same figure in 1938-39. Comparative averages for the past college year, 1939-40, show academic fraternities with a standing of 1.21. This is a marked improvement and I trust will continue because of the new regulations of the council requiring a "D" or 0.5 average for rushing and pledging. Over a period of the last twenty-one years, 1939-40 excepted, the average of academic fraternity men stands at 1.064, while the all-men's average over the same period stands at 1.112. In the 1936-38 biennial report, the figures for the previous twenty-one years, 1937-38 excepted, show the comparison to be 1.054, with the all-men's average of 1.1086. In recent years the scholastic averages of all men in the University have improved faster than the averages of fraternity members. However, when the records for the past twenty-one years are checked, it will be seen that for the earlier years of the period, fraternity members' records improved in a faster proportion than those of all other men. It is anticipated that the scholastic requirement necessary for pledging a fraternity as set by the Interfraternity Council last year will raise the general fraternity average equal to the all-men's average which at present stands at 1.286.

It is evident that the scholastic average of members of academic fraternities is not as high as the present all-men's average. Without any attempt to excuse any delinquencies, it should be pointed out that this is not a true comparison of like with like, since the majority of academic fraternity men are in the College of Science, Literature, and the Arts, the General College, and the Institute of Technology. The scholastic average of all fraternity men on the campus, both academic and professional, would show a truer comparison, since then all fraternal members would be covered as a group. I have computed an average for such a group. It shows for the academic year 1938-39 an average of 1.328 and compares favorably with the all-men's average for the same period of 1.286. I believe this is a more reasonable comparison, although I am in agreement with the necessity of computing an academic average separately. The all-men's scholastic average naturally embraces all colleges. Membership of academic fraternity groups is much more confined to those colleges which in turn do not contribute more than the minimum in points toward this all-men's average. In no instance does a college

group, in which more than 80 per cent of academic fraternity men are enrolled, obtain an average in excess of the average finally computed for all men in the University.

The factors of comparison, however, are of only relative importance. It is more important that in the last few years we are able to recognize a clear change in attitude on the part of the student body towards scholarship. During 1939, the Interfraternity Council sponsored considerable statistical study relative to scholarship and mortality of its membership. Subsequently with the release of the statistics gained by this study, the Interfraternity Council by a unanimous vote set up a scholastic requirement for all men who were desirous of being rushed and pledged by any of the member groups. It is my belief that this step alone will increase greatly the scholastic averages of academic fraternity groups. Since this rule was inaugurated, as many men have been pledged to fraternities as there were during 1938-39. In other words, the standard has been raised. The importance of this change of standard will show itself also in mortality figures. This is one of the vital problems of the present and future strength of all organized groups. The fraternities have shown a clearer understanding of the factor of scholarship in the following ways:

1. More general acceptance of the resident house counselor. It is the present intention of the council to make the house counselor program mandatory upon all academic fraternity groups in co-operation with the University itself.

2. The improvement that has occurred in the past year in the quarterly pledge averages of the various fraternal organizations that are members of the council. An illustration of this was the fact that the pledge trophy was won during the last year with an average of 1.48 for some fifteen pledge men, and there were several other groups pressing them at this level. In 1937, when the emphasis was first placed on scholarship by the council, the pledge trophy was won with an average of 1.2—almost three tenths of a point under the average of the group which won in this last year.

3. Continued use of the office of the dean of student affairs and the records of individual achievements prior to membership consideration.

Membership.—During the biennium, membership totals of fraternities have decreased slightly. Table I shows a comparison of membership, actives and pledges, of the members of the Academic Interfraternity Council, for the years 1929-30 through 1939-40:

TABLE I. MEMBERSHIP STATISTICS PER MAN COMPARISON

1929-30	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	Eleven-Year Average	Previous All-Average
<i>Total Active and Pledge Members in All Academic Fraternities</i>												
1,371	1,440	1,358	1,226	1,204	1,180	1,153	1,168	1,262	1,221	1,168	1,248*	1,268
<i>Average Active and Pledge Members in All Academic Fraternities</i>												
47.27	49.65	46.82	42.27	41.51	40.69	41.17	44.92	48.54	46.86	44.98	44.96	44.73

* Years 1929-30 through 1934-35—basic 29 members, Interfraternity Council.

Year 1935-36—basic 28 members, Interfraternity Council.

Years 1936-37 through 1939-40—basic 26 members, Interfraternity Council.

Note.—In collecting the total for each fraternity, active and pledge members are combined. Graduate students, or those students pledged but dropped prior to midquarter, are not included in the computation. The figures also do not show the extent of dispersion around the mean. However, the averages of the individual fraternities are arranged comparative to previous years.

The average per group has been reduced somewhat from its high of 1937-38, and more closely approximates the eleven-year average. The total of men affiliated during the last year of the biennium is 1,168. Except for 1937-38, this figure com-

pare favorably with totals during the past ten years. Table II gives a comparison based on actual quarterly memberships, which it is my belief, shows more accurately the true strength of fraternity groups from one period to the next.

TABLE II. MEMBERSHIP STATISTICS
(PER UNIT COMPARISON—MEMBERSHIP REDUCED TO A FULL YEAR BASE)

	1936- 37	1937- 38	1938- 39	1939- 40	Four-Year Average	Previous Two-Year Average
Total number of units of men, actives and pledges, members of all fraternities	988	1,058.4	1,018	984.6	1,012.2	1,023.2
Average number of units, actives and pledges, members of each fraternity	38	40.7	39.2	37.9	38.95	39.3

NOTE.—Total membership has been reduced to membership for a full year, i.e., a pledge of January 1 actually is a member only during two quarters. He, therefore, classifies in the above comparison (Table II) as a $\frac{2}{3}$ unit.

The above comparison shows a very slight per unit decrease over the period of the biennium. I know of no specific reason why this should be, except that in the year 1937-38, a larger number than usual was pledged to fraternities. During the last two years, the total membership, or number of men pledged, has returned more closely to the totals previous to 1937-38. The above table of comparison shows that the average strength of membership of academic fraternities during the last four years has varied between 38 and 41 men.

Rushing.—The rushing program of academic fraternities has been continued under a deferred system as inaugurated in 1924-25, with some minor change. The changes made during the spring of 1939 were brought about through a survey made by a committee of the council among prospective members and men who had just been pledged. This showed three faults in the deferred rushing system as practiced at that time:

1. Incoming freshmen were not properly prepared with the necessary information concerning the fraternity system and the various fraternal organizations at Minnesota.
2. There was insufficient circulation of men among all of the fraternities during rushing. This was mainly because under the old deferred system, all rushing was crowded into a short period of one week.
3. There was a high mortality of men. The individual groups made a selection without due regard to college ability or first quarter academic achievement.

The council took these findings and has rebuilt our system to meet the deficiency. It was the unanimous opinion of all fraternities that they wished to maintain the principle of deferred pledging, so from this base they determined upon a system that embraced the following salient points:

1. The first six weeks, or prior to the midquarter point of every man's first quarter in school, he was to be provided through printed material and through group meetings, with the necessary information about the fraternity system, about individual fraternities, and about the rushing system employed at Minnesota.
2. In the period after midquarter or during the last five weeks of the quarter all freshmen were allowed informal association with fraternity men at their fraternity houses. Each fraternity was allowed three open houses during the five-week period. No pledging or discussion of selection could take place, but there was a greater circulation of men.
3. The balance of the program was similar to the old in that the formal selection period was the first week in January. However, the difference here was that only men who had maintained a passing grade in their first quarter of residence at the University were considered for membership, or invited to rushing parties. The rules also provide that after January 1, 1940, no men will be rushed or pledged who have not maintained a passing average of .5. The only exception is that if a man in a subsequent quarter transfers colleges and then maintains the graduating average of the college into which he transfers, he becomes eligible.

It was the thought of many that pledging would be seriously curtailed. However, statistics show that only a small decrease in the total number of men pledged during the year 1939-40 has occurred (1938-39, 522 men; 1939-40, 483 men). This slight reduction would seem to be only a normal decrease from the peak year of 1937-38. The total is still in excess of those pledged in the years 1934 through 1936. It will not be necessary to pledge as many men to support academic fraternities, if the mortality improves under the new rushing and pledging requirements.

Finances.—There has been continued improvement during the biennium in the general financial stability of all fraternal groups. In the main this has been brought about by increased membership, but some credit can be given to the increased interest of the groups themselves. I believe that reasonable credit for improvement can be given to the correction of bad management practice and of faulty financial policy.

1. Almost all groups have accepted professional accounting and managerial service. In 1938, there were twenty academic fraternities accepting such professional service and this has now increased to twenty-five. Such services are offered by the office of the dean of student affairs and certain Twin City accounting firms.

2. There has been continued interest in the Fraternity House Managers' Association. There also has been reorganization of the old Minnesota Co-operative Buyers Association during the past biennium. A new co-operative organization was formed called, "The Fraternity Co-operative, Incorporated." At present it has a membership of twenty-seven groups and it is expected there will be an increase of at least a half dozen during the coming year. The operating results of this co-operative were satisfactory during its first year, a 4 per cent dividend was paid, and the average selling price of supplies was from 5½ to 8 per cent under the general retail market. The books of the Co-operative are audited under the supervision of the financial adviser. The financial adviser and his assistant have been in continuous contact with the Board of Directors in the maintenance of a sound co-operative financial policy and procedure during the past year. It is my expectation that within the course of time a great saving will be made possible to more groups and a corresponding increase in the financial stability of fraternities will take place.

In general, during the past two years, there has been a decided improvement in both the attitude and attention of individual fraternity members. I have made a definite attempt to have every fraternity man better informed on the importance of a creditable group standing and his individual responsibility. I am continually using every opportunity to stimulate group education on the problem and to inform the alumni of each group and the parents of the members.

Fraternity guidance and counseling.—As adviser of the council, I have found a decided increase in requests for conferences relative to fraternity problems. This has covered prospective members, active as well as pledge members, alumni and visiting national officers (Table III).

TABLE III. CONFERENCES RELATING TO FRATERNITY PROBLEMS

	1937-38	1938-39	1939-40
1. Conferences with individuals regarding fraternity problems of personal nature, i.e. membership.....	263	291	317
2. Conferences with local or national officers relative to their particular organization on the campus.....	67	49	61
3. Conferences or meetings of the Interfraternity Council, its committees, the House Counselor Association, or the Fraternity Co-operative, Incorporated.....	31	34	37
4. Attendance at chapter or alumni activities of a social nature.....	21	16	17

We have continued our efforts to improve and stabilize the guidance and counseling program offered within each individual fraternity. The root of the house counselor program is in the Minnesota Plan which was established jointly by the Interfraternity Council and the University in 1934. The objective of this work has been to improve the adjustment of individual members within the social group and in turn to improve the relationship of the group with the University and the public at large. The use of graduate house counselors is now entirely

voluntary on the part of fraternities. It is the intention of the council to make such use mandatory.

Projects.—The Interfraternity Council has continued an ambitious program of social and educational activities, which are outlined as follows:

1. *Social:*

- a. Fraternity outing
- b. Interfraternity ball
- c. Interfraternity pledge party
- d. Fraternity Christmas party for underprivileged boys
- e. Fraternity Week banquet and dance
- f. Annual spring council banquet and induction of new members

2. *Educational:*

- a. The Pledge Relations Committee—orientation of new pledge members
- b. Fraternity Week and Regional Interfraternity Conference. During the past year the adviser of the council was appointed regional director and the First Northwest Regional Conference was held at the University in April, 1940. At that time, delegates from fifteen other colleges and universities attended and joined with local fraternity men in a discussion of problems.
- c. Fraternity Public Relations Bureau
 - 1. Publicity releases to Northwest Press on activities of fraternities and fraternity men.
 - 2. Supervision of council publications
 - a. Magazines sent to all new men at the opening of each school year. "Fraternity at Minnesota" issue 5 in 1939, and issue 6, in 1940.
 - b. Publication of an additional manual *A Manual of Fraternity Week Talks*. This is Volume 3 in our manual series, and is a collection of the discussions and speeches given at the last three Fraternity Week events.
- d. Fraternity Statistical Bureau

There has been continued investigation and statistical study by a special committee of the council, in general under the direction of the adviser. While no major survey has been completed in the past biennium, several smaller ones relative to rushing, pledging, and scholastic averages have been compiled and made available to fraternities.
- e. Fraternity Tutor Bureau

This is a new project and has been generally supported by all fraternities. Graduate fraternity members and upper classmen have offered their services in seminar discussion prior to examinations. This was first tried in 1939 in the winter quarter and was limited to new pledges and freshmen. At that time, 126 men took advantage of seminar sessions. This past year there was a general increase and it was made available in a number of additional courses. A total of 159 men engaged in such seminars. This project is still in its infancy, but the success to date indicates a desire by fraternity men to benefit themselves as individuals and to improve the scholastic average of their groups.

Respectfully submitted,

CARROLL S. GEDDES, *Adviser,*
Interfraternity Council

DEAN OF WOMEN

To the President of the University:

SIR: I submit my report for the biennium 1938-40.

There is no marked change in the general aspect of the women students' life on the campus. The leadership of the women's organizations has continued to be in strong hands and guided by forward looking students, and they have taken their responsibilities remarkably well. Their interest in all phases of university life has increased in recent years, as is indicated by their attendance at convocations, their participation in such activities as hobby shows, their support of many new types of social activities, and their desire to co-operate, both with other organizations, and with the plans of the administration. Their participation in the planning for the Coffman Memorial Union is perhaps the most concrete evidence of this.

HOUSING

Dormitories.—The completion of Ada Comstock Hall in time for residence in the fall of 1940 is an occasion of great rejoicing to all the women students. While it adds approximately 280 beds to our housing facilities, it is setting a standard in its type of construction and furnishings that will be felt throughout the housing situation on the campus. Mrs. Leora Cassidy, who has been in charge of Sanford Hall, is moving to Comstock Hall, and is taking the added responsibilities of managing Comstock Hall, Sanford Hall, and the co-operative cottages.

Maria Sanford Hall.—Maria Sanford Hall has been completely filled for the last biennium, and even the opening of Ada Comstock Hall has not decreased its enrolment.

Louise M. Powell Hall.—Louise M. Powell Hall continued to develop a fine spirit of responsibility in its residents, and its recreational facilities are still being used by other groups. The student government in the hall is developing splendidly and is doing much to create a real morale among the nursing students.

Co-operative cottages.—For the past two years there have been nine co-operative houses, holding about 120 girls. Residents have had board and room for about \$21 a month. The darker side of the picture is that these old houses become shabbier year by year. Their furnishings have never been adequate, and now there is the contrast with the beauty of Comstock Hall. Our next housing should deal with this group of students. In spite of the shabbiness and inadequacy of the houses, however, the students have entered into the activities of the University wholeheartedly, and have maintained an extremely high scholastic average.

Home Economics Dormitory.—We have continued to use the Home Economics Dormitory on the Farm campus for the university students who take work there. Because this dormitory serves no meals the social life is far less complete than in other university residences.

Rooming houses.—All the houses where students live have been inspected and graded by the director of the Housing Bureau or her assistant. We continue to hold monthly meetings of our householders' organizations. This year the Health Service, in co-operation with the office of the dean of student affairs, the dean of women, and the Buildings and Grounds offices, completed a survey of all the houses caring for students on the Main campus and the Farm campus. The results showed that these houses range all the way from "excellent" to "pretty poor." With the

reorganization of the Housing Bureau, the Health Service is undertaking the task of inspecting and grading all of these houses, duties which really belong in a division of hygiene. This leaves the Housing Bureau free to deal with the house-holders, since the Housing Bureau itself will no longer do the grading of the individual houses. We hope from this division of duties to be more objective in our rating of the houses, and to encourage the owners to bring them to a higher standard for our students. On the other hand, we have to be realistic and remember that since the east side is the oldest part of Minneapolis and many of these houses have been built for more than fifty years, they may not warrant a heavy capital outlay for improvements. Moreover, the students come from homes of every type. Some are able to pay for really luxurious living quarters, and are able to obtain them. Others need to observe cost before everything else, and for them it is necessary to have a simpler type of house, furnishing rather fewer luxuries but at a price which they can pay.

STUDENT ORGANIZATIONS

Women's Self-Government Association.—The Women's Self-Government Association has closed two successful years. In 1938-39 the president was Miss Ruth Christoffer, and in 1939-40 Miss Elaine Murphy. The dean of women sits on the board ex officio, but does not vote. She acts as a liaison officer between the administration and the student board, and also serves to give perspective to student actions and student decisions. One who works with these students cannot but be impressed with their earnestness, their open-mindedness, their desire to be of the utmost help, both to the administration and to the student body, and their willingness to do a tremendous amount of work, much of which gains very little recognition, and none of which is rewarded financially. They have been particularly helpful in planning for the program of the Coffman Memorial Union, in enlarging their work with the entering women students, in co-operating in wider plans for low cost entertainment for the whole student body, and in maintaining their interest in scholarships for self-supporting women.

Young Women's Christian Association.—Miss Mary Ruth Odell in 1938-39, and Miss Helen Prouse in 1939-40, headed the Young Women's Christian Association. Miss Jane Bradley has continued as full-time secretary.

The emphasis of the organization has been on co-operative relationships with many other university and community agencies. The association has 1,400 members and serves many nonmember students who participate in a particular part of the program, or who come to the offices for counsel regarding their problems. There has been increasing interest in informal group activities based on interest such as books and poetry, music, crafts, folk dancing, and the little theater group. A crafts studio as a special experiment in a survey of the various forms of crafts work was new this year.

The training of leadership through participation has been another emphasis. Widening the range of participation of the membership and providing experiences which aim toward more appropriate ways of social adjustment have been ideas which we have kept constantly before us.

The changing national and international scene has influenced many aspects of the program. The religious groups and the public affairs committee have tried to think through bases for personal and social action.

The Women's Athletic Association.—Under the leadership of Miss Marion Eckblad in 1938-39, and Miss Helvie Ripatti in 1939-40, the Women's Athletic

Association attracted over 3,000 different participants in its program, and 434 women have been given awards for participation. In addition to encouraging students to use the facilities of the Women's Gymnasium, the Women's Athletic Association has carried on active programs in Sanford Hall, Powell Hall, the Farm campus, the Minneapolis General Hospital, the co-operative cottages, and Panhellenic.

Mortar Board.—Mortar Board, the senior honorary society for women, held membership, through its president, on the Coffman Memorial Union Planning Committee, and contributed materially to the program worked out for this new venture. Perhaps its greatest usefulness is the influence its members exert in their own student organizations. The fact that they meet together and discuss university problems strengthens each when she goes back to her own organization.

Sororities.—Beta Phi Alpha, a weak chapter for several years, has surrendered its charter and discontinued activity. We have on the campus the problem of sororities which are far too large, so large that they are unable to accomplish for their members the objectives for which they were organized, and other groups so small that they cannot function satisfactorily, nor give to their members the opportunities which any girl desires in joining a sorority. The scholastic average rose slightly, though it is still below that of all the women students on the campus.

The problem of which Panhellenic is most conscious is that of creating a more unified feeling among the sororities themselves, and its members have been working on this problem for the last two years with some visible progress. They have voted to do away with the selection of "queens" and with competitive sales which created much ill will between participants. They maintain a loan fund and award at least three gifts of \$50 each quarter of the school year to outstanding members of the sororities.

Shevlin Hall.—It is with great regret that the women students relinquish the use of Shevlin Hall to ordinary academic uses. While it has been too small for many years, and while the activities have almost overrun its walls, still it was the campus home of many Minnesota women, and they are loath to give it up, much as they anticipate the more commodious quarters in the new Coffman Memorial Union. The office of the dean of women will move to the Administration Building, the Young Women's Christian Association secretary to the Coffman Memorial Union, and the Housing Bureau where the work links into the two offices, with those of the dean of women and the dean of student affairs, will be in the Administration Building.

Social life.—The social life of the campus may seem to be excessive to the casual observer, and yet each organization (and we have almost 300 of them) is permitted only two parties a quarter. Many do not have more than one party a quarter, and others have only one party a year. The conduct at the parties has greatly improved in recent years, and we hope further that the Coffman Memorial Union may set a standard that will be felt in the entire social life of the campus.

Farm campus.—On the Farm campus both the Young Women's Christian Association and the Women's Self-Government Association maintain separate boards which co-operate with the Main campus organizations. The opening of new student union rooms on the Farm campus has done much to build up a better social life, to draw more students into the social activities, and to unify the interests of the men and the women.

Other duties.—In addition to working with the organizations discussed thus far, the dean of women has been a member of many university committees. Perhaps the greatest amount of her time is devoted to the problems of individual students,

many of which are personal. She has administered the loan funds in her office, including those of the Faculty Women's Club and the local alumnae organizations. She has supervised in general the housing situation for all of the women students, and has arbitrated many differences between landladies and students. The work has been strengthened this past year by the addition to her staff of Miss Ruth Christoffer, as student assistant, who was herself the president of the Women's Self-Government Association in 1938-39.

With the closing of Shevlin Hall as a social center, it seems as though one phase of the work of this office might be drawing to a close. It will be a real effort to keep the informal, friendly, and personal contact with the students which the very conditions in Shevlin Hall made so easy. This, however, must be done if the office of the dean of women is to perform the function which it has in the past, and if it is to continue rendering helpful and friendly service to individual students and to organizations. The next years are going to be challenging ones to all the members of this division.

Respectfully submitted,

ANNE DUDLEY BLITZ, *Dean of Women*

STUDENT PERSONNEL CO-ORDINATION SERVICE

To the President of the University:

SIR: I submit the following report on the Student Personnel Co-ordination Service for the biennium 1938-40.

Organization.—Upon recommendation by a special survey committee appointed by the late President L. D. Coffman, this department was organized in the spring of 1938 and began functioning on July 1 of that year. Four general staff functions were assigned to it:

1. Conducting studies of all phases of student personnel work
2. Making recommendations for improvement in personnel services
3. Giving assistance to departments in the improvement of these services
4. Developing lines of co-operation among the various personnel departments

To assist the staff of the department the president appointed an Advisory Committee (composed of major administrative officers of the University), and a University Personnel Council (composed of the heads of the major university personnel departments and personnel workers representing the colleges). By means of deliberations of these two groups and conferences between the co-ordinator and individual personnel workers, it is expected that more complete and effective lines of relationship will gradually develop among the various personnel agencies. In conformity with this general procedure innumerable individual conferences and meetings have been held during the past biennium. In some cases definite plans and recommendations have evolved out of these democratic discussions. With respect to other phases of personnel work, considerably more effort must be expended before problems are fully understood and desirable changes formulated.

Five lines of progress.—Many phases of the total personnel program have now been reviewed, but with respect to five major ones definite progress has been achieved. The first of these has to do with the completion of the extensive descriptive survey of the many ramifications of the University's personnel program. A survey report was completed and has been published. On the basis of this descriptive survey the President's Survey Committee has made general recommendations with regard to desirable policies for the gradual evolution of the University's personnel activities.

The University's facilities for the placement of graduates in full-time positions have not yet been systematically reviewed, although several of the colleges are evolving satisfactory services. To aid in such a review a special three-day institute was held in November, 1939, with the co-operation of the Center for Continuation Study. The leading placement officers of other colleges and universities and of industrial organizations discussed the many ramifications of this phase of higher education and formulated desirable policies. The *Proceedings* of this institute have been distributed.

At the request of the president, the co-ordinator reviewed with the directors of the dormitories and the various college personnel officers the desirable relationships between counseling programs in the dormitories and those provided by the colleges and the University Testing Bureau. These three counseling programs were developing without a maximum exchange of information and services, resulting in some undesirable duplication of assistance to students. After considerable discussion, agreement was achieved with respect to general policies and specific procedures to be used by all three groups.

For a number of years an informal group of students and staff members, known as the Social Co-ordinating Committee, has been meeting in an effort to achieve some degree of harmonious co-operation among the various departments and student organizations concerned with students' social life. Many members of the group felt that this phase of the personnel program should be more closely related to the broader co-ordinating efforts. An informal group of staff members concerned with students' social activities forwarded to the president a suggestion that the Social Co-ordinating Committee be constituted as a subcommittee of the University Personnel Council to achieve this fuller correlation. After discussion by the council and by the students' committee this suggestion was approved and put into effect in the spring of 1940. Members of the Personnel Council and the Co-ordination Service will seek to assist students to achieve correlation of students' social activities among themselves and with other types of personnel services.

Since 1932 the University Testing Bureau has been evolving a type of technical service supplemental to the counseling performed by staff members in the various colleges. The bureau has avoided centralization of general counseling functions and has sought to stimulate and assist efforts of the colleges to develop faculty counseling. Gratifying progress has been achieved and the counseling programs of several colleges have been greatly strengthened by the addition of professionally trained counselors and by more extensive exchange of information with the University Testing Bureau. In connection with this policy of co-operation the University Testing Bureau has undertaken to provide more extensive testing services for admissions purposes to such colleges as Education, General, Science, Literature, and the Arts, Pharmacy, Agriculture, Forestry, and Home Economics, the Medical School, the School of Business Administration, and the General Extension Division. These testing programs, supplemental to special individual testing for counseling purposes, will provide the colleges with more complete data on which to advise students with regard to registration, curriculum, and professional problems. Gradually a better understanding of the supplementary functions of the University Testing Bureau and of the college counseling staffs is being evolved with resulting improvements in services to individual students. It is becoming increasingly apparent that an adequate counseling program for the entire University requires both a strong technical department, such as the University Testing Bureau, and an equally strong counseling staff in the various colleges.

While considerable progress has been made in the gradual evolution of a more complete understanding of the personnel program and the instituting of desirable lines of relationship, many perplexing problems remain to be analyzed and the necessary procedures established. Progress toward an adequate program of personnel services involves a continuation of the fine spirit of co-operation manifested in the past by administrators, instructors, and personnel workers.

Respectfully submitted,

E. G. WILLIAMSON, *Co-ordinator*

UNIVERSITY TESTING BUREAU

To the President of the University:

SIR: I submit herewith the report of the University Testing Bureau for the period July 1, 1938 to June 30, 1940.

Basis of support.—Effective July 1, 1939, the Regents authorized a revised financial policy for the bureau's operations wherein the major share of support was distributed among all students by assessment of a uniform quarterly fee. In previous years, WPA support, student charges for individual services, and college charges for services maintained an approximate balance between rapidly increased demands for service and financial needs for such demands. But the cessation of WPA support made it imperative to re-examine the bureau's financial structure.

The Regents' action provided a broad and continuing financial basis for a more systematic program of diagnosis and counseling of individual students and an extension of this program to more students in the University. In effect, all students pay for personnel services as insurance against academic difficulty and as partial reimbursement for testing services which the bureau carries out at the request of most of the colleges or divisions of the University to provide aids in selecting, classifying, or guiding college and division enrolments.

This systematic financial support has also permitted greater attention to the preventive aspects of personnel work, reflected in increases in the number of pre-college and freshman year students coming to the bureau for help.

This change in financial policy has led to other changes during the biennium: size of staff and location of quarters. Under increasing case and service loads, the former bureau quarters in Northrop Memorial Auditorium were inadequate. Under a financial policy based on extending services to greater numbers of students and departments, the staff of the bureau was insufficient. The present quarters in Eddy Hall and the present full-time staff of twenty-five workers reflect the bureau's growth during the biennium.

Clinical services to students.—Table I summarizes data on the case load of the bureau. Figures for the present biennium show an increase over the previous two-year period; figures for each year of the biennium reflect some of the expected increases in 1939-40 as a result of the new financial policy effective in July, 1939.

TABLE I. CASE LOAD OF THE UNIVERSITY TESTING BUREAU

Cases	1936-38	1938-40	1938-39	1939-40
Total student cases	5,031	7,523	3,300	4,223
New cases	3,946	6,057	2,666	3,391
Cases continuing	1,085	1,466	634	832
Referred cases	1,766	3,620	1,626	1,994
Voluntary cases	3,265	3,903	1,674	2,229
Men	3,099	4,755	2,062	2,693
Women	1,932	2,768	1,238	1,530
Total precollege and freshmen	2,846	4,450	1,921	2,529

The 1938-40 biennium brought an increase of approximately 2,500 students to the bureau for individual help. In the biennium 48 per cent of all the cases were referred by staff members and educational officers, while only 35 per cent of the cases in the previous two years came in this manner. A third important increase is seen in the 1938-40 load of precollege and first year students, with whom the bureau can do the most effective work in prevention of maladjustment.

Table II includes data on the services rendered to the students classified in Table I. Here again, increases in extent of case work are noticeable. For the biennium 1938-40, the bureau's counselors co-operated by collecting and returning a greater number of case reports to faculty members outside the bureau than they did in 1936-38. This increase represents the actual working out of co-ordination in case work with the individual. Amount of data collected from the student, in terms of tests, questionnaires, and inventories, has shown a marked increase over the two biennial periods. But the average number of interviews per case—1.65 in 1936-38 and 1.72 in 1938-40—has not yet reached the point of most desirable practice. However, these interviews in 1938-40 were based on greater amounts of data for each case, which probably enhances their effectiveness.

TABLE II. CASE SERVICE STATISTICS

	1936-38	1938-40	1938-39	1939-40
A. Total data collected from other agencies	11,268	18,330	7,226	11,104
Entrance test ratings	3,461	6,290	2,691	3,599
Grades	819	1,556	624	932
Health service reports	187	557	238	319
Clearance slips	6,617	9,248	3,528	5,720
Other counselor's reports	184	679	145	534
B. Number of individual interviews	8,176	12,911	4,789	8,122
C. Number of reports to other counselors	2,407	5,506	2,522	2,984
D. Total data collected from students	35,062	68,002	29,389	38,613
Scholastic aptitude tests	4,052	9,050	3,465	5,585
Special aptitude tests	4,253	9,748	4,034	5,714
Achievement tests	9,283	16,088	6,831	9,257
Diagnostic reading tests	1,305	8,216	1,753	6,463
Vocational interest tests	3,756	5,257	2,661	2,596
Case history forms	2,590	4,098	1,692	2,406
Personality inventories	9,823	15,545	8,953	6,592

Services to colleges and departments.—Each year the bureau provides skilled testing services for colleges and departments, whose staff members then use the test results in selection, classification, and guidance of students. The bureau's staff may score and report tests given by other examiners, or its own examiners may administer group testing programs which the bureau then scores and reports to the appropriate college or division. With the removal of special charges to colleges for such services, the 1938-40 biennium brought a marked increase in this work, indicating greater use by faculties and administrators of test results in their educational planning and management. At present, nine colleges or divisions within the University use annual testing programs, with the possibility of increasing this number in coming years. Other institutions and agencies throughout the state use this special service also.

The following figures summarize this phase of the Testing Bureau's work:

	1936-38	1938-40	1938-39	1939-40
Tests scored and reported to colleges, divisions, and others	133,043	145,219	68,299	86,920
Tests administered, scored, and reported to colleges, divisions, and others	50,050	71,100	28,026	43,074

For 1939-40, records were maintained to indicate the number of students reached at various times and in various programs of this service work. In scoring and reporting test programs involving 86,920 tests, 37,083 individuals are represented (including 23,339 high school students in the state-wide testing program). In administering, scoring, and reporting 43,074 tests, 12,886 individuals are represented (including 4,845 high school students in the state-wide testing program).

As more faculties and administrative staff members find test data useful in handling student problems and in revising educational procedures, these numbers

should increase. A parallel development in the past two years is the employment by some colleges and divisions of trained personnel workers for the interpretation of such test data.

Training facilities.—In continuing co-operation with the Department of Psychology and the College of Education, clinical training at the graduate level has been given to students in preparation for high school and college counseling work. Greater use is being made of staff clinics and conferences to which special college counselors and administrative officers are invited for exchange of information about procedures and methods used by the bureau in case work with students of the particular college.

Research.—Continuing its policy of research on personnel methods and techniques, the enlarged staff of the bureau has participated in group and individual research projects designed to improve the effectiveness of counseling. The addition of technically trained counselors and administrative assistants was made possible by the bureau's new financial policy, in the recommendations for which it was emphasized that a continuing program of evaluation and investigation of results and procedures should be maintained.

Other special services.—Work in remedial reading was started in the bureau in 1939-40 and the program reached approximately 350 students during that year. The results are now being studied as a basis for planning this work more efficiently in coming years.

The services of the faculty-student contact desk have been made available to a greater number of agencies and individuals on the campus as a means of coordinating individual case work.

The professional staff of the bureau has participated in the work of campus committees in the field of personnel services and has provided technical consultation facilities to college or divisional programs in regard to counseling procedures.

Respectfully submitted,

JOHN G. DARLEY, *Director*

BOARD OF ADMISSIONS

To the President of the University:

SIR: The Board of Admissions is appointed annually by the president of the University. For the year 1939-40 the membership included Clyde H. Bailey, C. A. Koepke, T. R. McConnell, R. M. West (secretary ex officio), and C. M. Jackson (chairman). The board has general charge of the administration of the university entrance requirements which are ultimately determined by the various colleges of the University. The routine administration of the rules for entrance has been delegated to the university registrar. The usual statistics concerning admission to the various colleges of the University will be presented in the separate report of the registrar.

Another duty of the Board of Admissions is to conduct investigations concerning problems of admission. An example is a study of the validity of college entrance requirements recently undertaken by Professor Charles W. Boardman. As explained in previous reports, an earlier and extensive series of studies was made, in co-operation with the various divisions, to determine what factors are most useful in predicting the collegiate success of students. Most of these investigations were in charge of Professor Harl Douglass, then a member of the Board of Admissions, with the co-operation of special committees from the various divisions. The Committee on Educational Research has rendered aid in the provision of financial assistance. These studies have yielded valuable results, which will be useful in solving some of the problems of selective admission and educational guidance of university students. A summary of these investigations will soon be published by the University of Minnesota Press.

Respectfully submitted,

C. M. JACKSON, *Chairman*

DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

To the President of the University:

SIR: I submit herewith my report as director of the Department of Physical Education and Athletics for the years 1938-39 and 1939-40.

Significant activities.—The department has carried on a varied program of sports, games, and activities for the men of our faculty and student body. Outstanding progress has been made in the teacher training program and in research. A number of items of special importance are briefly listed:

1938-39

1. Conduct of an Intersectional Ice Hockey Series with Southern California.
2. Assistance with the conduct of the Northwest Gymnastic Meet.
3. Conduct of the Northwest Interscholastic Swimming Meet.
4. Conduct of the state high school championship meets in golf, tennis, and wrestling.
5. Conduct of region and Twin City high school basketball championships.
6. Conduct of Northwest Baseball School.
7. Conduct of Twin City high school football championship.

1939-40

1. Conduct of Intersectional Ice Hockey Series with Yale.
2. Conduct of state high school championship meets in swimming, wrestling, tennis, golf, and track.
3. Conduct of region and Twin City high school basketball championships.
4. Assistance with the conduct of the Northwest Gymnastic Meet.
5. Assistance with the conduct of the State High School Coaches Basketball Clinic.
6. Conduct of the Northwest Baseball School.
7. Conduct of the National Collegiate Track and Field Meet.
8. Conduct of the National Track Clinic.
9. Construction of twenty-five asphalt tennis courts.
10. Improvements at the golf course, including a steel fence.

Intercollegiate athletics.—The statistical tabulation gives a detailed account of intercollegiate athletic activities. The important items are summarized below and a comparison with the two preceding years noted.

	1936-38	1938-40
Number of contests	227	245
Number of conference contests	122	121
Number of non-conference contests	105	124
Number of contests won	141	164
Number of contests lost	77	77
Number of contests tied	6	4
Number of varsity men competing	2,624	1,634
Number of freshman candidates	2,644	1,803
Total intercollegiate competition	5,268	3,437
Conference championships	6	4

The championships included one in football, two in ice hockey, and one in gymnastics. The large decline in "number of varsity men competing" in sports is not only hard to explain but is alarming. The qualities of our teams were good and they may continue to be so, even though the number of participants decreases.

Athletic receipts for 1938-39 and 1939-40 did not equal those of the biennium ending June, 1938. They were sufficient to finance the department and to maintain our program.

Intramural sports.—The statistical tabulation gives in detail the participation by sports in the regular scheduled games. An improvement in the past two years has been the requirement of medical examination in the Health Service for in-

INTRAMURAL PARTICIPATION, 1938-40
 (Regular Scheduled Games)

Activity	Number of Men Participating 1938-39	Number of Men Participating 1939-40
Archery	45	76
Badminton	245	270
Baseball	69	121
Basketball	1,096	1,420
Bowling	210	212
Boxing	157	122
Diamondball	1,192	1,248
Fencing	65	74
Golf	437	378
Gymnastics	24	20
Handball	208	205
Horseshoes	143	134
Ice hockey	327	279
Rifle shooting	94	130
Skiing	76	225
Squash	50	42
Swimming	108	75
Table tennis	374	420
Tennis	843	1,410
Touchball	1,113	1,155
Track	218	245
Track relays	72	84
Volleyball	462	450
Wrestling	74	76
Total participants	7,702	8,871
Total individual participants	3,215	3,300

dividual health classification before a person can participate. Our program has shown an increased participation in archery, badminton, skiing, and bowling, and there will be a further increase in bowling when the new alleys are opened in Coffman Memorial Union. We especially recommend the acquisition of additional play fields and the construction of a winter recreation sports building.

Study in physical education.—Thomas R. Gibson has been assisting Professor Carl L. Nordly in the completion of studies which have been undertaken in physical education. During the past year he devoted a part of his time to a study of the "Play Interest of Glencoe and Litchfield Pupils of the First and Second Grades." William R. Griffith is making analyses of "Developmental and Psychological Analyses of Children's Play Activities" from data gathered by means of questionnaires returned by 1,402 Glencoe and Litchfield public school pupils in grades three and above. This investigation was initiated by the Department of Physical Education and Athletics with the co-operation of the University Committee on Educational Research and the Litchfield and Glencoe public schools.

Some progress has been made in the study of "Socio-Economic Status and Other Factors in the Modification of Leisure Time Education and Selected Phases of Health Education," based on questionnaire data of 1,161 pupils in the Glencoe and Litchfield public schools. "The University of Minnesota Study of Facilities and Equipment of the Accredited Public Secondary Schools of Minnesota" is nearing completion. These studies, together with the improved programs of physical education, health education, and recreation in the Glencoe and Litchfield public schools, have exerted a wholesome influence throughout the state and attracted

some national attention. Professor Nordly is continuing to serve in an advisory capacity in the program at Glencoe and Litchfield.

The Laboratory of Physiological Hygiene.—In 1937 the Department of Physical Education and the Medical School jointly set out to create a special division for teaching and research in human physiology with emphasis on direct application to problems of normal men and women. The responsibility for directing this enterprise was given to Dr. Ancel Keys, then associate professor of biochemistry in the Mayo Foundation, who was appointed associate professor of physiology and of physical education. Laboratory space was made available in Millard Hall early in 1938 and the space and facilities there devoted to this project have steadily increased. The laboratory now occupies seven rooms plus a dark room and a dressing-shower room. In 1939 the division was given the official title of the Laboratory of Physiological Hygiene. Much effort has been given to construction and installation of equipment necessary for a wide variety of studies on human physiology and biochemistry and the facilities for such studies are not inferior to those elsewhere in the United States. Outside services have shown interest in this project and already gifts of equipment and money representing over \$4,000 have been received. A recent guarantee has been received of an additional \$9,000 in support of certain research in this laboratory. Moreover, the medical committee of the National Research Council has just recommended an allocation for studies on military fitness to be made in the Laboratory of Physiological Hygiene.

During the biennium experimental studies have been chiefly on the heart and circulation, recovery from fatigue, oxygen lack, and methods for experimental study of men and women. In this period, twenty-five original scientific papers and articles (231 pages) were published by the director of the laboratory.

The teaching program in this field has been improved and enlarged, by changes in existing courses in anatomy, physiological chemistry, and physiology, and by addition of two new graduate courses. Eight graduate students have done special problem work in the laboratory, one of these received the M.A. and two were successful candidates for the Ph.D. There is a definite need for scholarships or fellowships to enable specially gifted students to pursue advanced studies.

The obvious importance of studies which should and could be carried out in this unique laboratory make it apparent that an additional position of faculty rank should be created. It may be noted that the great potentiality of the Laboratory of Physiological Hygiene in the National Defense Program is already being recognized here and elsewhere and plans are under way to extend work in the direction of such practical applications.

Teacher training.—The most significant change in the professional curriculum has been the requirement of two courses in recreation leadership. Studies of community recreation in Minnesota have revealed that many of our graduates have been given responsibility for administration of community programs. Therefore, some training in this field now is required. The minor requirement in physical education also has been increased.

Placements in physical education have dropped slightly. More rigid selection of physical education major students has been discussed in staff meetings. Temporarily, it may be advisable to encourage more minor students.

A bulletin service to our graduates was inaugurated in the fall of 1939. By this means we endeavor to provide in-service training and follow-up of our graduates.

There has been a wholesome increase in Summer Session registrations through the graduate offerings in physical education. This phase of our work is receiving

INTERCOLLEGIATE ATHLETICS, 1938-40

Head Coach and Activity	Total No. Games		No. Confer- ence Games		No. Non- Conference Games		Total No. Receiving Ath. Instr. Including Freshmen		No. Varsity Candidates		No. Varsity Cand. Elig. for Intercol. Competition		No. Having Competition		No. "M" Awards		No. Varsity Plain Garm. Awarded		No. Fresh- man Candi- dates		No. Numerals Awarded		No. Games Won		No. Games Lost		No. Games Tied	
	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40	38-39	39-40
Baseball McCormick.....	29	21	12	10	17	11	225	211	101	84	55	27	25	21	15	11	10	17	124	127	22	21	16	15	13	6	0	0
Basketball MacMillan.....	20	20	12	12	8	8	232	226	96	76	27	28	18	19	10	11	8	10	136	150	22	25	14	12	6	8	0	0
Football Bierman.....	8	8	5	6	3	2	576	559	329	199	67	64	52	52	34	39	18	25	247	360	61	91	6	3	2	4	0	1
Golf Smith.....	14	9	6	2	8	7	44	36	23	13	17	13	7	13	5	5	2	5	21	23	7	6	10	6	4	2	0	1
Gymnastics Piper.....	6	8	4	3	2	5	81	62	52	25	28	10	8	9	7	7	1	2	29	37	4	7	5	7	1	1	0	0
Hockey Armstrong.....	20	16	8	8	12	8	91	87	46	33	27	20	20	19	14	14	6	5	45	54	18	17	15	16	4	0	1	0
Swimming Thorpe.....	9	8	6	5	3	3	110	77	102	40	20	20	17	15	10	11	7	4	8	37	16	20	6	5	3	3	0	0
Tennis Brain.....	10	9	6	5	4	4	96	56	61	24	12	14	8	7	8	6	0	1	35	32	0	11	5	2	4	7	1	0
Track Kelly.....	7	7	3	5	4	2	203	178	117	81	29	25	16	23	14	13	2	6	86	97	9	16	3	4	4	3	0	0
Wrestling Bartelma.....	7	9	1	2	6	7	152	135	80	52	34	23	14	17	9	11	5	5	72	83	11	14	6	8	1	1	0	0
Totals.....	130	115	63	58	67	57	1810	1627	1007	627	316	244	185	195	126	128	59	80	803	1000	170	228	86	78	42	35	2	2

considerable recognition throughout the country. During the first term of the Summer Session in 1940, 140 students from 14 states were registered by major advisers in physical education. Of these students, 15 took all of their work outside our department to fulfill some of the requirements leading to the M.Ed. degree. During the second term 89 students were registered, of whom 10 took all of their work outside our department; 32 students attended both terms. Of the students enrolled in the College of Education during the second term 20 per cent were students in physical education.

In the fall of 1939, our department assumed the responsibility for teaching physical education in the University High School. During 1940-41 a five-day a week program in health education, physical education, and recreation will be inaugurated for these students. This program is similar to the experimental programs conducted in co-operation with this department in the Glencoe and Litchfield public schools.

There is an apparent need for more physical education for the university student body. The National Defense Program will doubtless place emphasis upon the physical condition of college men. It certainly would be in line with this program if more emphasis could be placed upon the desirability of maintaining physical efficiency while attending the University. Resumption of the required physical education program would be desirable at this time. Lacking this, it is hoped that more advisers in the various colleges will encourage students to enter physical education classes.

Sports education (service program in physical education).—The one-year physical education requirement applies only to men in the General College and the College of Education. The enrolment approximates four hundred per quarter including a few men from other colleges who elect the courses. Men who take Sports Education are given a classification test and the activities are adapted to their needs. Various tests have indicated that the physical status of men not in physical education is much lower than those receiving regular instruction and participation. Many of the former are also extremely lacking in the sense of an all-around education, for they lack the knowledge, skill, and attitudes in connection with recreational activities common to adults in society today. In view of these facts and because of the present emphasis on building up the man power of our nation as part of a national defense program, it is the urgent recommendation of this department that the one-year requirement of physical education be made applicable in all colleges.

Recreation.—The Department of Physical Education and Athletics has extended full co-operation in the development of the recreation curriculum. The rapid development of recreation in Minnesota places important emphasis on the recreation curriculum. Since the passage of the recreation law in 1937, the number of part-time systems has increased from 26 to 208 and the full-time systems from 7 to 13, 6 of which were within the last year. This rate of growth far exceeds that of the United States as a whole. The state of Minnesota now has year-around recreation leadership in 13 of its 26 communities of over 7,000 people, the standard set by the National Recreation Association as the size of the community demanding full-time leadership.

Respectfully submitted,

FRANK G. McCORMICK, *Director*

DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

To the President of the University:

SIR: Herewith I submit my report of the Department of Physical Education for Women for the biennium 1938-40.

The program for academic students.—During this biennium an experiment has been conducted in which guidance and advice before selection of courses have largely replaced specific direction. Most students who come to the University have given no thought to appraising their abilities in the field of physical education activities and are not ready to select from the department's wide range of courses the ones which will round out satisfactorily their preparation in this field.

The method of the experiment has been to encourage the student to study her needs in the light of her background and interests and to plan a program of physical education activities for herself that will satisfy immediate needs and supply her with health giving resources for the future. Recommendations from the Health Service, answers to student questionnaires, and personal conferences have assisted the faculty in their advising.

The course offerings have continued to express the department's belief in the importance of good posture, fundamental motor skill, measurable proficiency in selected physical education activities, and elements of knowledge of the care of health and the use of the body.

The selection of activities by the students has been influenced strongly by social usefulness. The trend toward individual sports and away from team sports has continued in accelerated tempo; the attention to good posture has been marked. There is increased interest in courses for developing higher levels of skill, on the one hand, and on the other, for courses in activities which the girl has never before had opportunity to learn, such as figure skating and badminton.

Now that this experiment has gone on for two years, during which many students have completed their two-year requirement in physical education, an evaluation is being undertaken to study the relation between the courses chosen and the students' needs as expressed by the physical examination and the physical education background in secondary school.

The average total registration for the two years of the biennium was 3,567. This represents an increase of 522 (17 per cent) over the average total registration of 3,045 for the previous biennium. During this time the records show that the enrolment of women in the University has risen approximately 3 per cent.

Teacher training.—Study and revision of the major and minor curricula for teacher training have been in progress during the past two years with the purpose of closer correlation with the needs of Minnesota schools for teaching services. Since the great majority of Minnesota schools do not employ full-time teachers of physical education, it is important for our graduates to be prepared to teach in one or more minor fields. Certain members of the staff have worked with committees appointed by the state supervisor of health and physical education in setting up minimum standards for certification of teachers of physical education. The revision of our curricula has profited by this committee work.

Among the curricular changes has been increased flexibility of the sequences secured by reducing the number of required courses and increasing the opportunity for electives. Subject matter for secondary teaching fields is made more accessible.

Five graduate courses that count toward the new M.Ed. degree have been developed and taught during the two years.

The usual comprehensive plan of student teaching has been carried out on the elementary, secondary, and college levels, using the city schools, the University High School, and the college classes at the University. It has included observation, demonstration, the teaching of both general and corrective physical education, and the teaching of health. The frequency and care with which it has been supervised form one of the strengths of our set-up at the University of Minnesota.

Recreation.—One problem has been to find a way to increase voluntary use of facilities and participation in activities in the hours after half-past four. The size of the campus makes it difficult for many students to get to the Women's Gymnasium, and the convenient proximity of commercial entertainment makes it easy to drift into that kind of recreation. During this biennium an experiment has been in progress to extend the services of the department beyond the limits of the gymnasium. Game and sports equipment have been taken to certain groups of students instead of requiring them to make use of the gymnasium. The centers which were chosen are Sanford Hall, Powell Hall, the Farm Campus Gymnasium, the Minneapolis General Hospital, the co-operative cottages, and Panhellenic. The students to whom this opportunity has been extended have given it enthusiastic response.

The Women's Athletic Association has formed an affiliated club, the Recreational League, for planning this new program. Any group of girls may organize for participation. Tournament competition between the groups has developed, and enrolment has steadily increased. One of the staff members of the department has been designated to foster this development. Seven activities were included in the program this year: baseball, basketball, bowling, riding, swimming, table tennis, and volleyball. Seventy-two teams competed, 26 organized groups were involved, and 986 individuals participated.

The regular program of the W.A.A. has proceeded much as in the past few years. A Badminton Club and a Masque and Foil Club have been organized and are functioning. The organization has sponsored an evening recreation hour for women alone and a noon co-recreation hour for men and women during every quarter. Each autumn it has conducted a high school play day the attendance at which in 1939 was nearly 300 girls. It carried on highly successful balloon sales at Homecoming football games in 1938 and 1939, the profits of which went a long way toward supporting its program. Each year Aquatic League presented a swimming pageant and Orchesis gave a recital. As usual, half of the profits went to the W.A.A. treasury.

The figures for all participation in 1939-40 are:

Fall quarter	2,600
Winter quarter	2,945
Spring quarter	2,800
	8,345

Awards for participation to the extent of one or more full quarters were given to 434 women.

Miscellaneous items.—Two of the staff and some of the students have been carrying on an experiment during 1939-40 in the Laboratory of Physiological Hygiene under the direction of Dr. Ancel Keys. The study is concerned with the rate of recovery from fatigue after exercise; it will continue in 1940-41.

"Posture clinics," first tried in 1938, met with such good response that they have become a recognized service.

The department has co-operated with the Red Cross program for the reduction of swimming fatalities by opening the pool for testing applicants for water safety instructors. One of the staff has conducted a course of refresher lessons for those who were planning to take the tests. Water safety demonstrations were given in the spring each year and were attended by 150 students.

The department now is the center for a national Women Officials' Rating Board which is an outgrowth of the Twin City Board organized two years ago. The Rating Board conducts a short series of lessons each winter for women who wish to receive its endorsement. This endorsement is recognized by the recreation departments of both Minneapolis and St. Paul, who, if possible, use only women officials for tournaments in which women compete.

The building.—The administrative offices have been remodeled by removal of certain partitions, converting four small rooms into two larger ones, a general office, and a director's office. Remodeling one end of the locker room has created a central equipment room where the equipment which the department dispenses to students—towels, costumes, and activity equipment—is given out over a counter. Losses of university equipment can be almost eliminated by efficient functioning at this counter, and a strategic view over the locker room has led to greater safety for students' property.

Remodeling of instructors' and students' dressing and rest rooms has resulted in an adequate and comfortable dressing room for a staff that had long ago outgrown the original one. The students are more conveniently accommodated.

Respectfully submitted,

J. ANNA NORRIS, *Director*

EMPLOYMENT BUREAU

To the President of the University:

SIR: I submit this report of the Employment Bureau for the years 1938-39 and 1939-40. It is the first biennial summary of the activities of the bureau since the inauguration of the classified system for nonacademic personnel July 1, 1937. The data present a statistical measure of an office which now administers the following:

1. A student employment agency for more than 4,500 student applicants.
2. A personnel office for a nonacademic staff numbering about 1,500 on regular payroll and 2,500 to 3,000 on miscellaneous payroll.
3. A central stenographic and typing service for faculty and students.
4. An NYA program for an average of 1,000 students.

Work of student employment agency.—Exclusive of NYA assignments, Table I includes all placements of students made by the bureau in both university and non-university jobs. Despite the upward trend of general employment since 1937, placement of students in part-time employment decreased from 3,942 in 1937-38 to 3,832 in 1939-40. A comparison of the total number of applicants requested, 4,454, with total placements made, 3,832, during the year 1939-40 reveals that there were 623 jobs for students that were not filled.

Placements made were divided between off campus and the University as shown in Table II which includes NYA assignments.

The aggregate of student placements made by the Employment Bureau during the biennium was 9,965.

Employment Bureau placements do not represent the entirety of student employment on the campus. A special study of university miscellaneous payrolls for the year 1938-39 showed 2,217 individual students employed during that year for cash or maintenance, amounting to \$258,908.78. The number of jobs could not be ascertained. This might safely be regarded as a typical year. The centralization of nonacademic employment in the bureau has the effect of encouraging departments to enlist more of their student help there, as is evidenced by the increase in campus placements subsequent to 1937-38. Unfilled jobs were for the most part from off campus.

During 1939-40, the number of student applicants with the bureau increased 11.78 per cent over the preceding year, from 4,177 to 4,669. An analysis of the applications for the biennium was made to determine the prevalent earning needs of students as stated on their applications. According to the tabulation (Table III) an average of 14 per cent of the women and 17 per cent of the men were entirely self-supporting. A portion of these were NYA students who registered for work that would supplement their incomes from the NYA. The numbers who needed to earn their maintenance were approximately equal to those who had maintenance provided but needed to earn enough to meet all other expenses: tuition, books, and incidentals. Each constituted about 35 per cent of the total. The remaining and smallest group required money for incidentals only. A broad interpretation of these percentages would be that over 50 per cent of the self-help students need to earn from half to all of their expenses while attending the University.

Experience has demonstrated that the student registration of the Employment Bureau each year follows a rather consistent pattern. This is shown in distributions made of the 1938-39 registration. (The table is not included because of

TABLE I. STUDENT EMPLOYMENT: PLACEMENTS AND EARNINGS, 1938-40

	Applicants Requested				Applicants Accepted				Amount Earned		
	Men		Women		Men		Women		1938-39	1939-40	Total
	1938-39	1939-40	1938-39	1939-40	1938-39	1939-40	1938-39	1939-40			
Athletic events	1,291	1,396	.....	.....	1,291	1,396	.....	.....	\$ 7,776.33	\$ 8,910.86	\$ 16,687.19
Chauffeur	15	5	.....	1	9	4	.....	1	506.82	137.00	643.82
Clerk—soda fountain	5	7	1	2	4	5	.....	1	371.00	235.00	606.00
Clerk—store	183	190	48	55	176	163	45	50	3,788.70	7,145.00	10,933.70
Draftsman	46	34	3	.....	41	32	3	.....	1,130.45	1,169.15	2,299.60
Domestic helper	330	309	358	306	319	291	237	165	40,183.85	35,586.70	75,770.55
Janitor	3	5	.....	.....	3	4	.....	.....	1,020.00	550.00	1,570.00
Laboratory helper	2	.....	.....	3	1	.....	.....	.....	100.00	.....	100.00
Library .....	.....	1	.....	3	.....	1	.....	2	.....	1,051.00	1,051.00
Manual labor	119	243	5	.....	115	229	5	.....	5,585.20	12,423.28	18,008.48
Musician and entertainer	30	35	19	.....	25	26	18	24	318.75	982.75	1,301.50
Nursemaid	3	1	65	51	3	1	52	41	1,246.65	1,508.25	2,754.90
Odd jobs	316	261	3	12	305	247	3	12	1,578.60	1,914.09	3,492.69
Office work	171	148	462	427	160	133	451	412	20,038.97	19,586.32	39,625.29
Oil station	5	7	.....	.....	4	4	.....	.....	981.00	1,048.00	2,029.00
Service jobs	129	214	10	64	124	187	10	44	4,218.10	10,342.00	14,560.10
Settlement house	6	1	7	4	5	.....	5	2	2,810.00	370.00	3,180.00
Summer resort and camp work	16	27	12	14	8	11	9	8	3,065.00	2,649.00	5,714.00
Telephone operator	6	4	14	3	6	4	10	2	2,115.50	1,878.00	3,993.50
Translation	10	11	2	2	10	9	2	2	87.35	85.50	172.85
Tutoring and teaching	149	112	27	48	128	102	26	45	1,205.67	3,732.65	4,938.32
Usher	19	20	.....	8	18	16	.....	8	568.80	4,001.00	4,569.80
Sales on commission	84	122	3	12	49	39	1	3	2,393.00	6,078.00	8,471.00
Miscellaneous	14	44	76	1	12	40	7	.....	1,761.50	2,268.20	4,029.70
Full-time permanent work	116	139	8	80	59	32	49	34	106,531.00	77,509.00	184,040.00
Totals	3,068	3,336	1,123	1,118	2,875	2,976	934	856	\$209,382.24	\$201,160.75	\$410,542.99
Number of applicants given work who are on NYA					99	94	46	41			

TABLE II. SOURCE OF STUDENT JOBS, 1938-40

Employer	Placements 1938-39			Placements 1939-40		
	Men	Women	Total	Men	Women	Total
University	1,652	429	2,081	1,934	406	2,340
NYA	839	321	1,160	837	328	1,165
Off campus	1,223	505	1,728	1,041	450	1,491
Total	3,714	1,255	4,969	3,812	1,184	4,996

TABLE III. STUDENT EARNING NEEDS, 1938-40

Amount Needed	1938-39			1939-40		
	Men	Women	Total	Men	Women	Total
Entire self-support	528	190	718	558	173	731
All or part maintenance	1,081	310	1,391	1,290	380	1,670
All except maintenance	1,083	471	1,554	1,151	538	1,689
Incidentals	294	220	514	310	269	579
Total	2,986	1,191	4,177	3,309	1,360	4,669

length, but the important particulars are listed here.) (1) Each school was represented in the registration. (2) Of the 4,177 students registered, there were 1,437 College of Science, Literature, and the Arts, 718 Institute of Technology, 524 College of Agriculture, Forestry, and Home Economics, 455 Graduate School, 355 College of Education, *et seq.*, to 13 applicants from the University College. (3) From 1,316 first year students to 628 fourth year students there was a steady decrease as classification advanced. (4) The ratio of women applicants to men applicants remained almost constant at 1 to 2.5. These figures are meaningful in what they imply regarding the applicant material of the bureau and the requirements in jobs if vocational experience could obtain as the criterion of placement.

The NYA program, administered through the Employment Bureau, is elsewhere reported by the chairman of the Committee on Student Work-Relief (page 350).

The nonacademic staff.—The classified system for nonacademic personnel has now been in operation for three years. During that time some administrative snags involving policies, procedures, records, etc. have been encountered and resolved. These have been minor when weighed against the complexities of the system and the improvements already demonstrated through its use. The importance to the University of adequate personnel records can scarcely be over-

TABLE IV. CERTIFICATIONS—NONACADEMIC STAFF REGULAR PAYROLL, 1938-40

	1938-39			1939-40		
	Men	Women	Total	Men	Women	Total
Appointments	188	203	391	142	200	342
Promotions	26	49	75	28	34	62
Transfers	8	6	14	6	6	12
Demotions	0	3	3	2	3	5
Retirements	16	6	22	5	1	6
Resignations	52	135	187	61	171	232
Total	290	402	692	244	415	659

estimated, judged by the daily use made of those records. Equally impressive has been the facilitation of administration by comprehensive rules and regulations. Not until the Employment Bureau is fully equipped with qualifying examinations, promotional flow charts, and ratings and performance records of all nonacademic employees can maximum benefits of the system be realized. Each step in this direction has proved its merit.

TABLE V. CERTIFICATIONS—NONACADEMIC STAFF MISCELLANEOUS
PAYROLL, 1938-40

	1938-39			1939-40		
	Men	Women	Total	Men	Women	Total
Appointments	1,757	1,052	2,809	1,683	893	2,576
Change of status	498	240	738	450	180	630
Total	2,255	1,292	3,547	2,133	1,073	3,206

Added to the certifications of the nonacademic staff shown in Table IV were certifications of appointments, adjustments, and resignations for the teaching and research assistant group amounting to 660 in 1938-39 and 686 in 1939-40. On these appointments and adjustments the Employment Bureau certifies only the correctness of classification and rate of pay.

The sum total of certifications made by the Employment Bureau during the biennium was 9,450.

The Employment Bureau recruited and placed candidates in full-time non-academic positions as shown in Table VI.

TABLE VI. PLACEMENTS IN NONACADEMIC STAFF--
FULL TIME, 1938-40

Year	Nonstudent			Student		
	Men	Women	Total	Men	Women	Total
1938-39	80	459	539	40	200	240
1939-40	206	579	785	158	267	425
Total	286	1,038	1,324	198	467	665*

* Of these, 71 were full-time permanent placements reported in Table I.

"Student" in the above table refers to those who were not at the time attending the University and those few who were at once full-time employees and registered students. Both miscellaneous and regular payroll are included. These people were selected by qualifying examinations wherever possible.

We now are prepared and have administered qualifying tests, other than clerical, for selection and promotion in the following classes: technician, photographer, laboratory mechanic, maintenance mechanic, mechanical foreman-roofer and sheet metal worker, mechanical foreman-plumber, chief operating engineer, engineer-fireman, and fireman. Examinations for assistant dietitian, mechanical foreman-elevator maintenance, janitor, floorman, and a few of the skilled trades are available but have not yet been applied.

Table VII summarizes the tests given for positions in the nonacademic service, administered under the supervision of the University Testing Bureau. The Employment Bureau selects the candidates to be tested, specifies the tests to be given, and analyzes the test results before recommending candidates for positions.

TABLE VII. TESTS ADMINISTERED—NONACADEMIC STAFF, 1938-40

Year	Persons Tested	Tests Administered
1938-39	1,444	4,252
1939-40	1,564	4,502
Total	3,008	8,754

Examinations administered orally by the director of the Employment Bureau for some supervisory positions are not included. For such positions the interview examination has proved the best aid to selection.

Physical examinations given to individuals entering the nonacademic service are reported in Table VIII.

TABLE VIII. PHYSICAL EXAMINATIONS—NONACADEMIC STAFF, 1938-40

Year	Men	Women	Total
1938-39	71	195	266
1939-40	88	163	251
Total	159	358	517

These examinations were given in the Health Service. Entrants into positions in the nonacademic service in the agricultural substations are examined by local physicians who report their findings to the Health Service. The latter sends a physical rating for the individual to the Employment Bureau for the records.

Stenographic Bureau.—Table IX gives a summation of the services of the Stenographic Bureau for the biennium. The most significant point is the decrease in output and income for 1939-40, when, for the first time in its history, the bureau was forced to refuse requests for typing service. There is a concentration of student typing shortly before term papers, colloquiums, and theses are due. When necessary the bureau operated to capacity from 7:30 a.m. to 11:30 p.m. with two shifts of typists. Further expansion would have been possible had the Employment Bureau staff been able to devote the necessary time to arranging it. Practically all of the work was done by students or wives of students. This is the one factor that would seem to justify the continued operation of a service enterprise by the Employment Bureau.

TABLE IX. TYPING JOBS, SOURCE, AND INCOME, 1938-40

Year	Faculty	Department	Student	Income	Total
1938-39	57	38	1,344	\$3,193.75	1,439
1939-40	56	34	1,278	2,819.30	1,368
Total	113	72	2,622	\$6,013.05	2,807

Conclusion.—The preceding tables give testimony to the effectiveness of combining the functions that have been centered in the Employment Bureau. Representing the University as employer, the Employment Bureau draws whenever possible from the student registration for nonacademic employment. Obviously the advantages are reciprocal.

The NYA program has demonstrated how wider vocational benefits can come from a controlled program of student part-time work. While there can be no control over jobs that come to the student employment agency, the same care can

and should be exercised in placement, follow-up, and guidance. Without this, the Employment Bureau has no hope of co-ordinating its aims with those of other student personnel services.

With the great volume of student registration, placement, and follow-up depending upon one individual on the regular staff of the Employment Bureau, it is manifestly impossible to do more than strive to keep up by giving a minimum of attention to each student and each job. Despite all efforts, this year 623 jobs went unfilled, and several hundreds of students received no employment aid. There is no surer way to lose the patronage of off-campus employers and to lower the quality of placement work.

One development that seems related to our limited ability to aid College of Agriculture, Forestry, and Home Economics self-help students appears in the increasing proportion of NYA funds going to those students. In 1936-37 the students of the college received 15.8 per cent of the total NYA funds expended. In 1939-40 they received 24.3 per cent. (This is exclusive of the branch school allotments.) Total enrolment of the College of Agriculture is approximately 9 per cent of the university total.

In brief, the history of the Employment Bureau for the biennium 1938-40 has been one of increase in volume and extent of service beyond the capacity of the small staff to absorb efficiently, and our future progress depends upon being in a position to develop our techniques of selection and placement.

Respectfully submitted,

DOROTHY G. JOHNSON, *Director*

UNIVERSITY ART GALLERY

To the President of the University:

SIR: This is the University Art Gallery's report for the biennium 1938-40.

Changes and adjustments.—One of the significant changes of this past year was the inclusion of a museum course for advanced and graduate students in the curriculum of the College of Science, Literature, and the Arts. This course is experimental in that it is not patterned after the accepted form in other institutions offering such study. We have few students with specialized fields of concentration. Therefore, the course stresses the effective operation of a small gallery with the probability of its having a limited staff and budget; and the very practical side or business operation of such a gallery.

We operate the gallery largely with a WPA project and NYA students. There are many obstacles in servicing and operating with such a staff, but our one main objective was to produce as effective and as smooth-running an organization as possible which would adequately service our students, faculty, and those who come to us for aid and assistance. During the biennium the WPA project grew from 20 to 50 workers.

Within the last biennium we were allotted new space consisting of the third and fourth floors of Northrop Memorial Auditorium and a receiving and packing room on the first floor, which greatly improved the physical operation.

New installations in the form of cabinets, shelves, cases, etc., with new equipment such as tables and desks, were made in our WPA shops to house our collections and to equip our offices.

Growth in services.—A library of reference material in printed and pictorial form is growing in size and value. As instructors work with the gallery more closely, our services become an articulated part of the teaching in the University. As this idea of service has evolved it develops as a unique idea in the field of education. It would therefore appear that our exhibitions are planned with a broader value and more directed aim than is ordinarily conceived in most art gallery or museum programs.

The tabulations indicate that the Student Framed Print Collection, the Pictorial File of illustrative material, and the Pamphlet File are expanding in usefulness. These services are being extended to all parts of the state and to bordering states.

Changes in objectives.—There have been changes in our aims and objectives during the period. Altering concepts have taken form as to the real position of an art gallery on a large university campus such as ours. In our early years, the principal aims were to show exhibitions and to loan framed colored reproductions to the student, hoping to lead him to an appreciation of the cultural aspects of life. But gradually it was seen that the gallery could keep its original objectives and also increase its value by becoming a laboratory or place of demonstration for our art classes at work. By working more closely with the instructors, we are now able to synchronize the many exhibitions we bring, and plan them with the primary thought of our teaching in mind.

It has become increasingly evident that one great lag in art teaching all over the country has been a lack of vision of the possibilities in teaching art, due to dearth of pictorial material to illustrate that art which is produced. Recognizing this, two years ago the General Education Board gave grants to five museums

to experiment in the field of secondary education with exhibition materials and to make a study of the situation and its cure. For four years, with no outside aid, we have been working on this problem and we feel our observations and findings are valuable, and our thinking well advanced.

STATISTICAL SUMMARY, UNIVERSITY GALLERY, 1938-40

	1938-39	1939-40
Attendance record (approximation)		
Gallery and corridors.....	36,636	59,574
Fine Arts Room.....	14,787	21,732
Arts Reference Room*.....	1,127	7,460
Attendance at lectures	2,560	3,452
Total attendance	55,110	92,218
Exhibitions		
Exhibitions in gallery†.....	47	56
State traveling exhibitions.....	1	8
Places shown	10	59
National traveling exhibitions.....	4	5
Places shown .....	.....	13
Catalogs published		
American Painting, 17th, 18th, 19th Centuries (February, 1939)		
Oscar Bluemner Exhibition (March, 1939)		
Primitive Art (March, 1940)		
Radio broadcasts		
Thursday broadcasts	49	52
Saturday broadcasts	50	52
Possessions department		
Framed prints in Student Framed Print Collection.....	397	441
Prints rented to students.....	1,044	1,119
Unframed prints	1,156	1,202
Unframed prints used for study purposes.....	1,750	2,437
Originals in Originals Collection.....	502	805
Originals hung in offices	69	136
Originals used by schools and classes.....	345	390
Pictorial File		
Mounts in file.....	10,847	19,906
Mounts borrowed	5,073	10,136
Departments using mounts	9	9
Individuals using mounts (practice teachers, etc.).....	947	1,254
Pamphlet File		
Pamphlets in file.....	4,732	7,343
Pamphlets borrowed	647	1,383
Departments using pamphlets.....	9	9
Individuals using pamphlets.....	732	1,181
Packing and unpacking		
Shows packed and unpacked.....	47	56

* Arts Reference Room opened, January 13, 1939.

† Does not include 70 separate exhibits in WPA show, May 20-25, 1940.

One weakness on which the program of the General Education Board study proceeds was the one of using only museums instead of tying in as well the universities that had existing programs. There is, therefore, not a close integration of exhibition material with the teaching that is going on, nor a comprehension of the factors which limit the teachers of art. The University is a logical center to which teachers and people with educational problems should come. A museum is not as closely tied into the educational problems of teachers and children as is a university. This might possibly be a reason for the complaint by museums that their efforts are not appreciated nor used by teachers to the extent that had been hoped.

Our early ventures into the exhibition field with schools convinced us that we could service schools in a different way. Teachers, informed of our services through a catalog, make their own selections of the materials they need. In addition,

eight exhibitions based on teacher demands were sent out. These were circulated by the Junior Leagues of Minneapolis, Duluth, and St. Paul. Thus a heavy and persistent demand is being made on our files by teachers who want special material quickly. There is an almost alarming growth of this service because without WPA aid in this program, the University would have difficulty in carrying it on.

Existing services.—Turning from aims and objectives, we now come to a listing of the existing services of the University Art Gallery:

1. Exhibitions of national and international importance are brought for our visitors, students, and general public.
2. Special exhibitions are brought for class work or demonstration purposes.
3. Five exhibitions were offered and circulated by the gallery on a nation-wide basis.
4. Special exhibitions are planned and built for the public schools of our state, circulated by the Junior Leagues.
5. In the Pictorial File and Pamphlet File is reserve material which may be secured on call by the public and private schools, by faculty who wish material for their class use, by students interested in art, by practice teachers, and by individuals wishing such material for special purposes.
6. At a fee of 25 cents per academic quarter framed colored reproductions of the old and modern masterpieces in art are loaned to students for their rooms, to aid in familiarizing them with good art.
7. As an aid in appreciation, originals and good reproductions are hung in classrooms and offices where students may come into contact with them.
8. A master index of the art slides in nine departments on our campus is being made and all art slides are classified under our one system of cataloging.
9. At least two radio broadcasts on art are given each week over WLB.
10. Lectures on the gallery exhibitions are given throughout the year.
11. Catalogs and informative materials are compiled which will aid in understanding the exhibitions.
12. The Fine Arts Room is a popular place where students may come to read the books and magazines placed on reserve there, or to contemplate the one work of art which is always on view in the niche.

Gallery problems.—Many of the gallery problems arise out of the broader problems that face the arts on our campus today, and I shall touch lightly on our specific problems in order to stress the broader ones. I trust I am not overstepping the gallery's boundaries of function by mentioning here the lack of unification and wasted money and effort in our arts program. Studies have been made, the matter has been discussed, and I believe we all agree something must be done about it. One study concluded that we need a new building; another that we need a person capable of heading a unified arts program. But neither could be effected. Neither of these recommendations, as I see it, comes first. Let us here on our campus, with what we have, get our house in order! We need not be stalemated in working this out. Must we let the status quo continue indefinitely? To express our problem briefly, we need first to cut out the duplication of courses and effort that now diffuse our teaching staff's energies. We have various objectives and aims in the different colleges where art is taught, different policies, philosophies, and ideals. This is valuable, but only up to a point. There is one ideal, one philosophy, one program on which art at Minnesota could stand; there must be. This could be realized by harmonizing viewpoints through sympathetic appreciation and discussion, for we are all really working for the same thing, namely, that art be well taught on our campus. This is possible, I believe, and certainly is worth putting to the test.

Possibilities are seen in working out the above problems, which are now submitted. In the general arts program a plan can be followed without materially changing our staff or waiting for nearer ideal conditions in physical plant.

Our present Arts Committee has been set up more as a gesture of good will among the departments than as a real functioning body. This committee should work to find and establish a platform on which we could all build effectively.

Through round-table discussion a program could evolve which would establish basic principles and procedures to which we could all agree, and in terms of which all work could be integrated.

A subcommittee or small group, unbiased and divorced from departmental attitudes, should be charged to study carefully:

1. Curriculum changes, with a view to cutting out duplication and focusing on necessities.
2. With this would naturally come recommendations for a reorganization of the present staff into more effective teaching units.
3. Budgetary needs in such a reorganization. (This would cut out duplication and diffusion of funds, since it is vital that funds must be most wisely spent in the coming years.)
4. Without an excessive outlay of funds, study the rehousing called for by reorganization changes. (It is to be hoped that ultimately we can have an arts building and that this rehousing would be on a relatively temporary basis.)
5. After it has been proved that we are working as a unit, give thought to a head who might provide continued leadership in the University's art program.

This program should be carried out this coming year, so that by 1941-42 unification could be made effective.

The gallery problems, as well as each and every art department's problems, would be studied in this proposal, since all of us would be a part of the greater whole, and working for a common good.

The future of the arts.—What do we see for the arts when we look into the future? In these perilous and anxious days, the first impulse will be to shift patronage from the more cultural aspects of life to the stern necessity of building armaments, to procuring protection, and to aiding people in securing the bare necessities of life. But for many ages past, lands have been laid waste by conquerors before. What has really survived this carnage?

Practically all that posterity knows of those civilizations which have been destroyed is in the arts that they have produced; these have survived the hand of the conqueror. With us, likewise, there is an obligation to posterity to nurture and preserve the best we have in our civilization.

Most great philosophers agree that man finds through his arts his first great liberating forces. Art is concerned with ideas of pure contemplation and is the mirror of what we are. The art we produce is our triumph over the material conditions surrounding us; it is the method of communicating our ideals and the objectification of those ideals. In art are the spiritualizing factors, and through them man will find release for his spirit and deliverance from his material woes. Therefore, as long as it is humanly possible, let us cling to and preserve what we know of "the good, the beautiful, and the true."

Respectfully submitted,

RUTH LAWRENCE, *Director*

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UNIVERSITY LIBRARY

To the President of the University:

SIR: I submit herewith a summary report of the library activities of the University for the biennium, 1938-40.

Growth of the Library.—Though statistics of growth in the number of volumes are not a complete measure of the value of a library, such statistics are among the most concrete evidences of growth in value as well as in size. During the biennium the General Library increased by 95,726 volumes. Worn out and discarded volumes totaled 1,210, a net increase of 94,516 volumes. The increase was 47,346 in 1938-39, and 48,380 in 1939-40. The report for the biennium 1936-38 showed an unusual increase of 153,466, mainly accounted for by the accessioning and partial cataloging, through WPA help, of about 70,000 theses which had been in the possession of the University Library, but unrecorded. The increase of 1938-40 is more nearly what we may expect under average conditions and is actually larger, when the abnormal number of theses is deducted, than for the preceding biennium.

Exclusive of the 9,001 volumes reported for the libraries of the schools and stations outside the two university campuses proper, the total number of accessioned books and bound volumes of serials in the University Library (including Law, the University High School, and Agriculture, and the other recognized branches of the University Library system) was 1,117,072 on June 30, 1940. Because of the unavoidable delay in paying for books ordered but not received, and the demoralization of foreign book markets on which we are forced to depend for many of our research books and periodicals, the exact figures for expenditures are not yet available but it is practically certain that they will prove to be considerably less than for several preceding bienniums.

Gifts.—On the other hand, there has been a decided increase in the number of gifts from various sources. Some of these come to us because of the size and prominence of the University. By far the greater part comes from the steadily increasing number of former students and friends of the University who have become interested in its library as well. During 1939-40 alone, 12,030 volumes, or more than one fourth of the entire number of accessions, were gifts. Many others were of value as exchange material with other libraries. These gifts should be considered supplementary to, rather than substitutes for, definitely selected purchases. Many volumes and standard works included in these gifts have been added to the copies we already have, or used to replace missing or worn-out copies, or held in reserve for the replacements which the heavy use of the library will make necessary in a short time. To counteract the value of these gifts, there is the amount of routine work required in their acquisition (a condition profoundly affected by the amount of WPA and NYA help available) and the question of storage which the regular growth of the library is already making acute.

Official documents.—The system of international and nation-wide exchange of books and periodicals, organized some years ago, has been continued with profitable results. We have an unusually good collection of official documents from practically every organized government of the world, including several now no longer with

separate identities. Naturally the number of these received will decline as the sendings become limited to current issues, or as other drastic changes in governmental organizations occur.

Curiously, the greatest difficulty is experienced in connection with federal and state documents of the United States. It is almost essential to maintain two sets as nearly complete as possible of the former, one for depository purposes and noncirculating use within the library building and the other for more general use. In many cases several copies are needed for special purposes. Duplicates, "fills," and replacements of these documents are difficult to procure in any systematic fashion, even by purchase at high prices. The case is even more difficult with state documents. The use of these is steadily increasing, but our files are only passably good.

The bindery.—The increase in accessions has increased binding needs, although the bindery staff has not correspondingly increased. Some aid has been received through WPA help in the preparatory processes, leaving the regular binders free for their own work, but even with this help and the installation of some labor-saving machinery, it has not been possible to make much headway against the binding arrears.

Cataloging.—After the books have been acquired they must be card-cataloged so that with the least practicable effort a user of the library may not only know what books by any given author the library has, what books there are on specific subjects, but many other details which will enable him to know whether or not it is the particular book or edition he wants. Cataloging is a job requiring wide linguistic knowledge (the library has books in more than thirty languages) and enough knowledge of the contents to insure the proper subject headings and volume numberings, so that each book will be placed on the shelves with other books in its field. The head of our catalog department calls attention to the inadequate size of the staff, our inability under present conditions to replace, with others of equal experience and ability, the experienced catalogers who leave, and the storage problems arising from the unavoidable increase in the number of books awaiting cataloging. The catalog is an essential record, and the need of accuracy and judgment in making it increases as the library grows. Uncataloged books are, it is true, partially available through other records, but only at a wasteful and troublesome expenditure of time and effort on the part of user and staff.

Circulation.—One concrete measure of the efficiency of a library is the number of books regularly added. An even better, though still incomplete measure, is the number and kind of books used. At the University of Minnesota, as in other university libraries, statistics of *recorded* use give only a partial picture. Access to the book stacks and open shelf collections bring increased use of many books, but the very freedom of use is conditioned on freedom from formal records of the books used. The greatest part of the recorded circulation is that of books "on reserve" for required class reading. A better index to individual use is the number issued for other purposes. The total circulation for 1938-39 was 995,883; for 1939-40, 1,074,266. In 1939-40 in the General Library, 291,844 out of a total circulation of 722,097 (or about 31 per cent) was for other than required class reading. A total of 19,284 volumes was placed on reserve shelves in 1939-40, an increase of 691 over the preceding year. The total number of graduate and undergraduate cards issued in 1939-40 was 14,934, an increase of 437 over 1938-39. The large number of students who never borrow books from the Library is perhaps little, if any, worse than elsewhere, but it is too large.

A disturbing element is the rapid decrease in available shelf space. A detailed study indicates that in another year or two at most, the most usable limit of shelving in the present stack will be reached. Possible shifts of material and disposal of some duplicates will give only slight relief. Some early expansion of stack facilities seems imperative. Fortunately there is still a fairly large amount of available unused space in the subbasement in which an additional stack of considerable capacity can be erected.

Reference.—Here the record of the biennium is one of steady growth in use with no corresponding increase in staff. The demands on the department have nearly doubled in ten years while the increases in the staff have not in any way kept pace. In this ten-year period the use of periodical material alone has increased nearly 88 per cent. Interlibrary loans have increased. In addition to the heavy use of the open shelves and the reference questions resulting from it, in 1939-40 the reference staff procured for readers 193,394 periodicals, books, documents, and other items on individuals calls. The department has also supervised, largely as WPA or NYA projects, the listing of pamphlets, theses, government documents, maps, microfilms, and other material for immediate and future use. Of these varied items, 66,433 have been recorded and added.

Staff.—Although the salary scale for the library staff is in many instances lower than for similar positions in smaller institutions, there have been relatively few changes. The Division of Library Instruction has made it possible to obtain well-trained local candidates at salaries which are not fair compensation for the training required for the positions to be filled. It is easy in time for this to become a handicap through the development of general permanence of tenure for mediocrity. Whether it will actually become so will depend largely on the opportunities for promotion, freedom of choice in appointment, control by the library of its own internal administration, and a distinction between clerical and professional service and the financial rewards for each.

Branch libraries.—The law library, with 113,596 volumes, has become one of the important law libraries of the nation. The agriculture library, on the Farm campus is doing excellent work, considering physical handicaps that are deplorable. A comparatively small collection is unavoidably so widely scattered that it loses much of its general availability. Enlarged quarters, preferably in a building restricted to library use, are eminently desirable as early as university finances permit.

The reports of the schools and stations with their total of 9,001 volumes, indicate some increase in their library use, but an inadequate supply of books and periodicals, even for the relatively small numbers of pupils, is also rather generally indicated.

Relative rank of the University Library.—There is no absolute standard for judging the efficiency of a university library. The number of volumes, the recorded circulation, and the number of users are all significant indications of value. None of these measures adequately the quality of service, which should be the real measure. There is reason for believing that the conditions which have made our library one built up by selective purchases, more than by extensive donations, have given our collection a high degree of utility. Even in size the library is gaining recognition. Here again, variations in the methods of counting make it possible only to estimate approximately. The latest comparative statistics available are for the year ending June 30, 1939. These give the University of Minnesota

Library the following rank among 44 of the leading American colleges and universities:

	Rank
Volumes in library	6
Volumes added, 1939-40	3
Expenditures for books, periodicals, and binding	6
1939-40 appropriations for books, etc.	6
Number full-time staff members	8
Expenditures for staff salaries	8
Full-time student enrolment in the University	2

Satisfactory as its progress has been, the library has not kept pace with student registration nor the increasing and varying demands made upon it by undergraduates, graduates, the faculty, and research workers. If the University continues to grow in size and influence, the library must also grow even more and become in the quality of its collections as well as in size, a still greater library of a great university.

Respectfully submitted,

FRANK K. WALTER, *University Librarian*

GEOLOGICAL SURVEY

To the President of the University:

SIR: I submit herewith a report of the work of the Minnesota Geological Survey from July 1, 1938 to June 30, 1940.

The survey was allotted \$14,000 for the biennium. Of this amount practically one half was expended each year to continue projects outlined in previous reports.

Field work and investigations.—Professor F. F. Grout was engaged in studies in Cook County, particularly of lavas and flows of Brule Lake. With members of the State Board of Health he and Professor G. M. Schwartz investigated the water supplies along the north shore of Lake Superior. Bulletin 28 on the Anorthosites of Minnesota, was issued in 1939 in collaboration with Professor Schwartz.

Professor C. R. Stauffer was employed by the State Geological Survey during the latter part of the summer of 1939 and was engaged in the study of Cambrian rocks in southeastern Minnesota. The classification of the system has been revised. One of the most important divisions recognized as a part of the Franconia formation is the Bad Axe member. This is well developed in Wisconsin where it carries a distinctive fauna, but in Minnesota it is mostly barren glauconitic sand. This member has been thoroughly searched, in some of its better outcrops, and a meager but important fauna was found which will aid in its correlation and classification. Manuscript is now being prepared on the southeastern part of the state and a bulletin will be published on the whole Paleozoic stratigraphy of that area.

Professor J. W. Gruner was engaged in field work near Rainy Lake, in completing his field work on the Knife Lake slates, and in field conferences with geologists of the United States Geological Survey and of the Michigan Geological Survey.

Professor G. M. Schwartz and a field assistant carried on detailed mapping in the Duluth metropolitan area. In 1938 the region between Duluth and Two Harbors was completed. In 1939 an area of four townships including Cloquet and Carlton was largely mapped. In 1937 a grant of \$575 was received from the Geological Society of America to permit detailed chemical analysis of several rock series from Duluth. This work has been completed and a paper giving the results appeared in the August number (1940) of the *Bulletin of the Geological Society of America*. In connection with the work on the Thomson slate of Carlton County, papers are being prepared treating the structures, the correlation, and the unusual concretions of the slates.

Professor George A. Thiel continued field work on the subsurface structure of southeastern Minnesota with special reference to the water resources of the region. A subsurface structural contour map is now in press. Part of the field season was spent with members of the engineering staff of the State Board of Health in a survey of problems of sanitation in the regions with extensive underground drainage through limestone sinks. Numerous public water supply systems were investigated and plans for new installations discussed.

In 1939 Professor Thiel worked with Professor Stauffer on the Cambrian and Ordovician stratigraphy of southeastern Minnesota and adjoining areas in Wisconsin and Iowa. This work resulted in a reclassification of the Cambrian formations. A report setting forth the new classification was published in a bulletin of the Geological Society of America.

Progress has been made in the compilation of maps and structural sections and in the tabulation of chemical data for the water supply bulletin of southern Minnesota.

Mr. F. B. Hanley was engaged in physiographic studies in Cook County and also in western Minnesota, particularly in Traverse and Bigstone counties.

The Minnesota Resources Commission has planned commercial development of certain products that involve mineral resources and the State Survey staff is co-operating in work on kaolins, fuller's earths, marl, lime, and rock for rock wool. Preliminary visits and studies of the requirements in raw materials and processing have already been made.

Special services.—In addition to the special investigations outlined above, the State Geological Survey has answered numerous inquiries covering a great variety of subjects. Such service is rendered without charge to all applying for it, and the demand for the service has steadily increased in recent years.

Respectfully submitted,

W. H. EMMONS, *Director*

NORTHWEST RESEARCH INSTITUTE

To the President of the University:

SIR: I submit a brief report of the work of the Northwest Research Institute for the biennium 1938-40.

Research in progress.—During the summer of 1938 large-scale experiments for the production of hydrogen from lignite and lignite char were carried out at the Oak Street Laboratories. These experiments indicated that additional work should be conducted with the view of producing hydrogen from lignite char by internal heating. During the summer of 1939 these experiments were conducted and completed. The results were satisfactory and during the remainder of the year 1939 and up until July 1, 1940, necessary small studies were finished and the calculations on all of the runs were completed. The evidence pointed to the proficiency of the process for the production of hydrogen. It seems likely that a large chemical industry may ultimately result from these investigations.

Additional studies have been continued in perfecting the method developed by Professor Ralph E. Montonna and his co-workers on alpha-cellulose from Minnesota aspen. These investigations indicate additional savings in chemical costs for this operation, leading us to believe that it will also be an economically feasible development.

Various methods have been investigated on the special manganese project with the result that the complex South Dakota ores might become an available source for manganese. This element is one of the strategic war materials which the United States imports at present from abroad. The South Dakota deposits constitute the largest reserve of this mineral in the United States, and the investigations pursued here have had as their object the making available of these resources for the necessary industries of the country.

The ores are complex, and it appears evident that chemical leaching will have to be used in this connection instead of the usual techniques now operated by the steel industries. The results to date indicate that such chemical processes may become feasible, especially during periods of emergency when prices are not the important factor.

Relation to national defense.—Recent discussions with members of the National Defense Council in Washington lead us to believe that they are keenly interested in these two matters. It has been suggested that since both of these processes are important for national defense, some method be devised whereby plants can be erected in this part of the country to produce these needed materials.

There was no thought of developing these natural resources for national defense when the work was originally undertaken. But if they can be made to insure our country needed materials in times of stress, it is desirable that they be pushed, and that the chemical industries involved be established as rapidly as possible. The Northwest Research Foundation is attempting to aid in the establishment of such industries at the present time.

Respectfully submitted,
L. H. REYERSON, *Director*

MINNESOTA MUSEUM OF NATURAL HISTORY

To the President of the University:

SIR: I have the honor of submitting the report of the Minnesota Museum of Natural History for the biennial period of July 1, 1938 to June 30, 1940.

Museum.—For the year 1938-39 the museum continued to function as usual in the Zoology Building. During the summer and fall of 1938 plans were drawn for a new museum building and excavation for the foundation was begun in November of that year. The site selected was on the corner of University Avenue and Seventeenth Avenue S.E. Mr. James F. Bell was the donor of the major part of the cost (\$150,000) and the Federal Public Works Administration supplied the remainder (\$122,000). The architects were C. H. Johnston of St. Paul. Work was discontinued during the winter but in the spring of 1939 construction was begun in earnest and by late fall the removal of the museum from the old to the new quarters was well under way. The new offices were occupied before Christmas but it required all winter and spring to transfer and reinstate the exhibits and other appurtenances of the museum. By the end of the period covered by this report a fair degree of order had been restored.

Attendance.—The museum was open to visitors during the period from July 1, 1938 to the fall of 1939 but was of necessity closed thereafter during the moving period. The attendance at the museum on Sundays during January, February, and March, 1939, was 5,136.

Lectures by staff members.—During the biennium, 287 lectures were given, with a total attendance of 28,139 distributed as follows: school children at the museum 5,026, school children elsewhere 9,050, adults 12,238, Sunday lectures 1,825. The fact that the museum was closed for nearly a year greatly reduced the number of lectures for this biennium. The lectures to school children include those given to Boy and Girl Scout and 4-H Club groups. The lectures, illustrated with slides loaned by the museum, have been given by members of the museum staff (mostly by Mr. Walter J. Breckenridge) with the exception of four in the northern part of the state by Mrs. J. A. Thabes, Sr.

Other museum activities.—March 2, 1939, Dr. A. A. Allen of Cornell University gave an illustrated lecture in Northrop Memorial Auditorium under the auspices of the museum.

February 8, 1940, the Minnesota Academy of Sciences held its annual meeting in the museum, and this was followed on May 18, by the annual meeting of the Minnesota Ornithological Union.

June 20, 1939, the cornerstone of the new museum was laid without special exercises.

For the twenty-fourth year the course in ornithology has been handled by the museum.

New exhibits.—The dismantling and moving of the museum occupied the time and attention of the preparator and precluded the building of new exhibits during that period, but during the previous year three medium sized and ten portable school groups were added, as follows: Canada lynx, red fox, red-breasted merganser, redhead duck, baldpate duck, indigo bunting, Blackburnian warbler, scarlet tanager, copperhead snake, swamp rattler, carnivora skulls, rodent skulls, and geologic history of man. The portable school or loan cases now number 163.

The backgrounds of two large new groups have been painted. They are the gift of Mr. James F. Bell and were painted by Mr. F. L. Jaques of the American Museum of Natural History, New York City, one of the foremost artists in this line of work in the country. We have to thank the American Museum for its generosity in loaning Mr. Jaques to us from April 7 to July 1, 1940.

In the reinstallation of several of the large groups they were rearranged by Mr. Breckenridge in ways that have made them more attractive and realistic. The backgrounds of the old groups varied in width and height and this, with more or less unavoidable damage sustained in the moving, required considerable adjusting and restoring. This was most satisfactorily accomplished by Mr. Edwin V. Brewer of St. Paul.

Accessions to museum.—Donations have been received from 82 different sources. The Minneapolis Park Board presented two mute swans, the Rose Brothers Fur Company of St. Paul, a musk ox skin, and the Minnesota Department of Conservation, a number of valuable birds and a porcupine. By purchases and by field work many books and specimens have been added.

Photography.—Nineteen hundred feet of 16 mm. colored motion picture film, 204 negatives, and 10 lantern slides have been added to the photographic library.

Publications.—A volume of 183 pages entitled *Annals of Museum of Natural History, University of Minnesota, 1872-1939* was issued as a museum publication in the spring of 1940 and widely distributed among museums and individuals. The bimonthly reports to *Bird-Lore* have been continued.

Co-operation.—Museum property has been loaned as follows: lantern slides 900, reels of motion pictures 101, portable school groups 383, bird and mammal skins, prints, etc. to various persons and institutions including the Carnegie Museum at Pittsburgh and the Biological Survey at Washington. Thirty-nine sets of birds' eggs (188 specimens) were donated to the Educational Department, Company 791, CCC, Custer, South Dakota.

Field work.—In April, 1939, and in June, 1940, Mr. Breckenridge visited the western part of the state to secure motion pictures of migratory waterfowl. He was successful in these expeditions and added important films to our collection. Much field work of a similar nature has been done in the eastern part of the state.

Museum donation fund.—Mr. James F. Bell has continued his monthly contribution of \$75 throughout the two years. This fund is used in various ways to augment the material property of the museum. It serves to supplement the inadequate museum maintenance budget.

Respectfully submitted,

THOMAS S. ROBERTS, *Director*

FIELD SECRETARY AND GENERAL ALUMNI ASSOCIATION

To the President of the University:

SIR: I submit herewith a report on the work of the field secretary of the University and the secretary of the General Alumni Association for the years 1938-39 and 1939-40.

Alumni board.—The directors were as follows:

Lillian Mayer Fink and Mary Shepardson representing the College of Science, Literature, and the Arts; William T. Ryan and George Shepardson, Engineering and Architecture; Spencer B. Cleland and Thor W. Gullickson, the College of Agriculture, Forestry, and Home Economics; John K. Fesler and C. F. E. Peterson, the Law School; Douglas Head, Adam Smith, and Robert Wilder, the Medical School; Coates P. Bull, the School of Agriculture; Joseph Shellman and Lewis W. Thom, the School of Dentistry; Walter H. Parker, the School of Mines and Metallurgy; Charles V. Netz, the College of Pharmacy; N. Robert Ringdahl, the College of Education; Frank J. Tupa, the School of Business Administration; Dr. William F. Braasch, First District; Dr. W. L. Burnap, Ninth District; Dr. W. H. Aurand, Arthur B. Fruen, Harry Gerrish, Rewey Belle Inglis, Carroll Michener, Arnold C. Oss, Ben W. Palmer, Frank W. Peck, George A. Pond, and Orren E. Safford, directors-at-large; Charles G. Ireys, Charles F. Keyes, Henry F. Nachtrieb, and Edgar F. Zelle, honorary members. The officers were Dr. Erling S. Platou, Medicine '20, president; Ben W. Palmer, Arts '11, Law '13, vice-president; Thomas F. Wallace, Arts '93, Law '95, treasurer, and E. B. Pierce, Arts '04, secretary.

Alumni Weekly.—With approximately 10,000 subscribers the *Minnesota Alumni Weekly* is third in circulation among the 172 alumni journals published in the United States. The results of a survey of the reading habits and preferences of college alumni conducted recently by a national advertising agency in connection with a study of alumni publications indicate that the *Minnesota Alumni Weekly* rates high in reader interest and appeal. In advertising revenue the *Minnesota Alumni Weekly* is among the first ten alumni magazines. The two volumes of the magazine published during the past two years totaled approximately 1,200 pages of printed material. A project of the *Minnesota Alumni Weekly* is the publication of directories of all the graduates of the University by colleges.

Alumni Advisory Committee.—This group, composed of representative alumni from points in the state outside the Twin Cities, meets with the Board of Directors of the General Alumni Association, the president of the University, and the Board of Regents at homecoming time in the fall and on Alumni Day in June. The president conducts a graduate seminar on university matters and these alumni go back to their constituencies feeling more familiar with the important facts concerning the institution. It is significant that a member who attends once generally repeats.

Alumni meetings.—The records show the following functions held under alumni auspices during the biennium:

1938-39.—September 14, New York, Class of 1908 civil engineers, Minneapolis; October 13, business alumni banquet; October 14 (Homecoming), medical alumni annual business meeting and luncheon, dental alumni luncheon, general alumni dinner; October 15, Detroit; October 28, Chicago and Northwestern luncheon, Chicago stag dinner; October 29, Cleveland; November 2, Brainerd; November 11, M Club at Minneapolis; November 18, Washington, D.C. (Big Ten Roundup); December 2, Chicago; December 27, New York City; December 6, St. Louis; December 29, Miami Beach; January 25, Red Wing; January 30, St. Cloud; January 31, Waseca; February 4, Fox River Valley; February 8, Mankato; February 10, Minneapolis (technology alumni); February 17, Class of 1925 electrical engineers at Minneapolis; February 21-23, Minnesota State Dental Convention (class meetings), Minneapolis; February 27, Cleveland; March 6, Albert Lea; March 13, Olivia; March 20, Rochester; March 31, Mankato;

April 3, Winona; April 4, Rochester, Austin, Wilmington, Del., chemists' dinner in Baltimore; April 13, Philadelphia; April 14, New York City; April 29, Kansas City; May 1, Redwood Falls; May 2, Marshall; May 3, Worthington; May 5, Livingston, Montana (dental graduates); May 8, Montevideo; May 9, Clarkfield; May 10, Marshall; May 11, Alexandria; May 12, Fergus Falls; May 15, Detroit Lakes; May 16, Moorhead; May 17, Crookston; May 18, Thief River Falls; May 19, Detroit, technology alumni at Minneapolis; May 22, Grand Rapids; May 24, Milwaukee, Chisholm; May 25, Buhl, Virginia; May 26, Duluth; June 4, Philadelphia; June 19, San Francisco; monthly meetings in Seattle and Los Angeles; weekly luncheons in Chicago; monthly luncheons of Alumnae Club in Minneapolis and St. Paul.

1939-40.—August 2, Winnipeg; September 8, alumni of Black Hills at Lead; September 10, Billings; September 12, Great Falls; September 15, Spokane; September 17, Seattle; September 20, Portland; September 26, San Francisco; September 29, Los Angeles; October 6, Omaha; October 14, medical alumni annual meeting at Minneapolis; October 12-14, medical alumni clinics; October 19-20, dental alumni clinics; October 20 (Homecoming), Alumni Advisory Committee luncheon, general alumni dinner (Minnesota and Ohio State); October 26, Kansas City; November 10, Chicago; November 11, Detroit at Ann Arbor, Fox River Valley at Appleton, Wisconsin; November 19, Philadelphia; November 24, M Club; November 25, Big Ten Roundup at Washington D.C., Cincinnati (Minnesota and Wisconsin alumni); December 8, Chicago; December 14, Board of Directors of General Alumni Association; December 22, San Francisco (Big Ten); December 27, Class of 1927 civil engineers at Minneapolis; December 28, Winnipeg, alumni of Geology Department at Minneapolis; January 15, Miami Beach; January 17, Red Wing; February 20, Spokane; February 26, Tyler; March 13, Milwaukee; March 14, St. Cloud; March 18, Albert Lea; April 14, Philadelphia; April 17, San Francisco (Minnesota nurses); April 19, Detroit; April 20, New York City; April 22, medical alumni residing in Minnesota at Rochester; April 30, Chisholm, Akron, and Cuyahoga Falls; May 4, Duluth; May 8, business administration alumni; May 11, law alumni; May 20, technology alumni; May 22, Philadelphia, Milwaukee; June 4, M Club.

Alumni Day.—In recent years commencement exercises have been held on Monday evening and this made it necessary, or at least desirable, for the alumni meeting to be held earlier the same evening. However, changing commencement from Monday to Saturday has made it possible for the Alumni Association to hold its meeting the night before (Friday). June, 1939, saw the beginning of the new schedule and the change appears to be satisfactory. Alumni Day fell on June 16. The special reunion classes were those with numerals ending in 4 and 9. The Class of 1914, headed by Harvard Rockwell, celebrated its twenty-fifth anniversary with a luncheon at noon and a splendid attendance at the evening dinner, when Mr. Rockwell acted as toastmaster. Luncheons were held by the Classes of 1889, 1904, and 1909. The Class of 1929 held a reception in the Minnesota Union before the dinner and the Class of 1896 had its annual meeting in Shevlin Hall in the afternoon. The Class of 1899 met at a dinner in the Center for Continuation Study on June 15 and the Class of 1902 held its annual dinner meeting on May 26. All the five-year classes were represented at the general alumni dinner. The banner for attendance went to the Class of 1929, which had the publicity advantage of having Governor Stassen as one of its number. This is the first time that the prize for numerical attendance has gone to other than the twenty-five-year group. The fifty-year class holds the distinction of having two members with honorary degrees from the University of Minnesota: Gratia Countryman and Henry Johnson. Both were present at the reunion.

Most of the alumni reunions in 1940 were held on Friday evening, June 14. The special reunion classes were those with numerals ending in 5 and 0, the 1915 group being the center of the picture and providing the toastmaster in the person of Donald B. Lundsten, chairman of the class, for the evening dinner. Luncheons were held by the Classes of 1900, 1910, and 1915. The Class of 1890 had a special meeting at 3:30 in the Minnesota Union and attended the alumni dinner in a body. Other meetings were held by 1920, 1930, and 1935. The Class of 1902 had its

annual dinner meeting in the Minnesota Union, May 21, and the Classes of 1892 and 1896 also had special meetings. About 400 alumni attended the dinner in the ballroom of the Minnesota Union. One of the special guests at the dinner was Charles P. Berkey of the Class of 1892, head of the Department of Geology at Columbia University, who was the recipient of an honorary degree from the University the next evening.

Alumnae Club luncheon.—The Alumnae Club luncheon has developed a distinct tradition in connection with Alumni Day festivities. Alumni from the fifty-year class and older classes are guests of the Alumnae Club on this occasion.

Alumni College.—An innovation in the 1940 Alumni Day program took the form of an Alumni College program. Two lectures were given by prominent members of the university faculty on Friday afternoon: "Economic Aspects of the War," by Arthur W. Marget, and "Effects of the War on American Agriculture," by O. B. Jesness.

Coffman Memorial Union.—The interest of all alumni was focussed on the campaign to secure funds for the erection of the Coffman Memorial Union. The project was under the direction of the Greater University Corporation of which George K. Belden is president. John M. Harrison was the campaign director. The firm of Pierce and Hedrick, the same organization that was employed in the Stadium-Auditorium campaign, gave professional direction. The objective was \$650,000; the campaign resulted in securing only half that amount. There were many factors responsible for the failure to reach the goal. The times were not propitious. Minneapolis had just finished a campaign to raise over \$1,000,000 for the Community Fund. There were campaigns under way for relief and in the offing was the drive for the Northwestern Hospital Fund. Furthermore, war premonitions gave a feeling of economic uncertainty. Following the Twin City campaign of April, 1939, subscriptions were solicited by mail among all alumni not reached by direct contact. The returns were not impressive. New York alumni through a committee headed by John Ray, Vincent Fitzgerald, and Carl Painter undertook a solicitation of Minnesotans in that area and secured subscriptions totaling a little over \$5,000. In Winnipeg, where the first foreign unit was organized, a few subscriptions were secured.

In April and May, 1939, the campaign was carried to the towns in Minnesota outside the Twin Cities. The response, in the main, was most encouraging and alumni interest gratifying. In practically all the towns visited alumni meetings were held and the project was explained. On the following day solicitations were made. Subscriptions were secured in fifty-four towns aggregating \$33,000. The principal points visited were Albert Lea, Alexandria, Austin, Brainerd, Buhl, Chisholm, Clarkfield, Crookston, Detroit Lakes, Duluth, Ely, Fairmont, Fergus Falls, Grand Rapids, Granite Falls, Hibbing, Luverne, Mankato, Marshall, Montevideo, Moorhead-Fargo, New Ulm, Owatonna, Pipestone, Red Wing, Redwood Falls, Rochester, Thief River Falls, Virginia, Willmar, Winona, and Worthington.

Upon the suggestion of alumni on the Pacific Coast the Greater University Corporation authorized an exhibition golf tour, conducted by the secretary, which featured Patty Berg, then national woman golf champion, in matches to be held in towns having Minnesota alumni organizations; the matches to be sponsored by the alumni clubs and the proceeds to be contributed to Coffman Memorial Union. The tour started the second week in September and closed the first week in October. Alumni meetings were held and golf matches played at Lead, Billings, Great Falls, Spokane, Seattle, Portland, San Francisco, and Los Angeles. Three

independent matches were played at Cutbank, Montana; Pebble Beach and Sacramento, California. At each of the meetings the secretary discussed current university affairs and told the story of the Coffman Memorial Union, urging contributions to this project. Patty Berg also addressed these gatherings and contributions were made at each center. On the return trip an alumni meeting was held at the Paxton Hotel, Omaha. This virtually closed the campaign so far as active solicitation is concerned, although later campaign meetings were held in Detroit, Kansas City, and St. Cloud, resulting in additions to the fund.

Respectfully submitted,

E. B. PIERCE,

*Field Secretary of the University and
Secretary, General Alumni Association*

THE UNIVERSITY OF MINNESOTA PRESS

To the President of the University:

SIR: With scholarship and science in the Old World either wiped out or harnessed to military aims, and publication rigidly controlled, the outlook for books and learning in the summer of 1940 is discouraging; discouraging and yet challenging. At the University of Minnesota we occupy one of the securest places on the planet and may well become a world refuge and stronghold of liberal education and culture.

As the free world market for books has gradually shrunk and practically disappeared, the University Press and the University Library have combined to substitute a system of priced exchange with other educational institutions all over the world, especially for those books and monographs by and for specialists through which knowledge and international understanding are preserved and advanced. The University Press began active operation in 1927 at the beginning of the period of world depression. Since that time it has turned over to the University Library approximately 60,000 volumes, for the most part at a merely nominal price. Library reports will show the use that has been made of them in securing materials often to be got in no other way, and in building up the collections essential for research.

In spite of the world situation, the University Press closed the biennium 1938-40 with book distribution and public appreciation as measured by dollar sales at the highest point in its history. The index number for 1939-40 is 402 on a base of 100 for 1927-28. The percentage of income from sales also reached a peak of 66 per cent of total income. This favorable showing is in part due to the fact that while the number of titles issued decreased (52 in 1936-38, 40 in 1938-40) the proportion of titles published in editions large enough to earn royalties increased. (Physical volume was 198,011 copies in 1936-38; 254,462 copies in 1938-40.)

It remains true, however, that a small number of titles account for the bulk of our sales (5 per cent of our titles produce 63 per cent of our net sales; 58 per cent of our titles in print produce over 98 per cent of our net sales) and that the great majority of titles are not self-supporting but must be subsidized. These subsidies in the past have come in about equal amounts from the University and from outside sources. The necessity for them will continue as long as the University continues to conduct research.

Another factor in increasing our sales volume is intensive activity in our sales department. In addition to direct mail circularization, we now have three commission salesmen carrying our books to the "trade" and covering most of the larger cities of the United States. We have exhibited our books at every important convention of the learned and professional associations of the country, usually in co-operation with other university presses. During the biennium we have put on 129 exhibits, 38 within the state.

We have increased our space advertising and have employed a New York agency in preparing it. Our less-than-page ads in the *New York Times Book Review* won third place in the Publishers' Admen's Club contest in May, 1940.

A signal recognition of the quality of our production was the choice by the American Institute of Graphic Arts of both *Modern Mexican Art* and *The Geese Fly High* for inclusion among the Fifty Books of the Year 1940. The only publisher between the Atlantic and Pacific coasts to have two books among the fifty, we were invited to open this exhibit simultaneously with New York and San

Francisco. As a part of our contribution to the celebration of the Five Hundredth Anniversary of the Invention of Printing, we held a five-day show of the Fifty Books in our newly furnished editorial offices in February, 1940.

At the request of the University Senate Committee on Printing, we redesigned the official bulletin cover and made recommendations for improving the quality of university printing. Assistance also has been given many departments in the preparation of bulletins.

Most important, the excellence of the editorial content of our publications is attested by hundreds of reviews and articles in scholarly journals and popular periodicals. The Carnegie Endowment for International Peace distributed 800 copies of *Dictatorship in the Modern World* to international relations clubs in colleges. *Guatemala, Past and Present* was chosen as an outstanding book on Latin America for exhibit at the New York World's Fair. *The Northern Garden* and *The Indoor Gardener* were selected for the Floriculture Library at the Golden Gate International Exposition. The American Library Association *Booklist* has recommended almost all of our nontechnical books for purchase by public libraries, and many technical ones as well. The *Book of the Month Club News* has recommended *Dictatorship in the Modern World*, *Guatemala, Past and Present*, *Let's Talk about Your Baby*, *Canoe Country*, *The Geese Fly High*, and *The Indoor Gardener* to its 150,000 subscribers, and sold many copies as a result.

Barring catastrophes of unexampled magnitude, our list for 1941 will be one of the best in our history. At least ten books in the field of education are projected, reporting many significant developments in the program of the University. Many other fields will be represented by one or more volumes. Long and widely anticipated, the history of the Mayo Clinic and Foundation is now nearing completion and is scheduled for publication in the fall of 1941.

A list of publications for this biennium, July 1, 1938 to June 30, 1940, follows in chronological order:

Enrichment of the Common Life. (Owatonna Art Education Project, No. 3.) By Melvin E. Haggerty. 36 pages. Paper.

The Effect of Praise and Competition on the Persisting Behavior of Kindergarten Children. (Child Welfare Monograph Series, No. 15.) By Theta Holmes Wolf. 138 pages. Cloth.

Some Factors Affecting Resumption of Interrupted Activities by Preschool Children. (Child Welfare Monograph Series, No. 16.) By Evelyn Katz. 56 pages. Flexible cloth.

Canoe Country. By Florence Page Jaques with illustrations by Francis Lee Jaques. 84 pages. 37 drawings. Cloth.

Minnesota Check List for Food Preparation and Serving. By Clara M. Brown. Test: 1 page. Paper. Manual accompanying test: 5 pages. Paper. Mimeographed.

The Judges of the Supreme Court, 1789-1937: A Study of Their Qualifications. By Cortez A. M. Ewing. 124 pages, 17 graphs. Cloth.

Father Louis Hennepin's Description of Louisiana Newly Discovered to the Southwest of New France. Translated by Marion E. Cross, with an introduction by Grace Lee Nute. 190 pages, illustrated. Cloth.

Owatonna: The Social Development of a Minnesota Community. By Edgar B. Wesley. 168 pages, illustrated. Cloth.

Arcadia Borealis: Selected Poems of Eric Axel Karlfeldt. Translated with an introduction by Charles Wharton Stork. 145 pages, illustrated. Cloth. Limited numbered edition.

Frivolities of Courtiers and Footprints of Philosophers: Selections from the Policraticus of John of Salisbury. Translated by Joseph Pike, with a foreword by John Dickinson. 436 pages. Cloth.

Ninety Days of Lawmaking in Minnesota. By the Minnesota League of Women Voters. 16 pages. Paper.

The Bruce Proper Motion Survey: I. First Report. (Publications of the Astronomical Observatory, Vol. II, No. 5.) By Willem J. Luyten. 5 pages. Paper.

The Bruce Proper Motion Survey: II. A Catalogue of 2,350 Variable Stars Found with the Blink Microscope. (Publications of the Astronomical Observatory, Vol. II, No. 6.) By Willem J. Luyten. 40 pages. Paper.

Why Agricultural Gluts Develop. (Day and Hour Series, No. 21.) By Alonzo E. Taylor. 32 pages. Paper.

Letters of William Shenstone. Edited by Duncan Mallam. 548 pages. Cloth.

- Parent Education: A Survey of the Minnesota Program.* (Child Welfare Monograph Series, No. 17.) By Edith A. Davis and Esther McGinnis. 175 pages. Cloth.
- Taxation in Minnesota, 1939 Supplement.* By Roy G. and Gladys C. Blakey. 32 pages. Paper.
- Iodine and the Incidence of Goiter.* By Jesse F. McClendon. 128 pages, illustrated. Cloth.
- The Activity of Young Children during Sleep.* (Child Welfare Monograph Series, No. 18.) By Chester R. Garvey. 136 pages. Cloth.
- The Family Meets the Depression.* (Child Welfare Monograph Series, No. 19.) By Winona L. Morgan. 144 pages. Cloth.
- Sweden: A Modern Democracy on Ancient Foundations.* By Nils Herlitz. 160 pages. Cloth.
- Dictatorship in the Modern World.* Edited by Guy Stanton Ford. 362 pages. Cloth.
- Civil Service Law.* By Oliver P. Field. 286 pages. Cloth.
- The Bruce Proper Motion Survey: III. Stars of Large Proper Motion and the Luminosity Function.* (Publications of the Astronomical Observatory, Vol. II, No. 7.) By Willem J. Luyten. 156 pages. Paper.
- The Bruce Proper Motion Survey: IV. The Frequency of Proper Motions in the South Polar Cap.* (Publications of the Astronomical Observatory, Vol. II, No. 8.) By Willem J. Luyten. 181 pages. Paper.
- The Bruce Proper Motion Survey: V. A Discussion of Double Stars with Common Proper Motions.* (Publications of the Astronomical Observatory, Vol. II, No. 9.) By Willem J. Luyten. 209 pages. Paper.
- Modern Mexican Art.* By Laurence E. Schmeckebier. 346 pages, 216 halftone illustrations, 2 in color. Cloth.
- The Geese Fly High.* By Florence Page Jaques with illustrations by Francis Lee Jaques. 102 pages, 55 drawings. Cloth.
- Marshall and Taney: Statesmen of the Law.* By Ben W. Palmer. 281 pages. Cloth.
- Labor's Right To Organize.* (Day and Hour Series, No. 22.) By William M. Leiserson. 23 pages. Paper.
- The Geology of the Anorthosites of the Minnesota Coast of Lake Superior.* (Geological and Natural History Survey, Bulletin 28.) By Frank F. Grout and George M. Schwartz. 119 pages. 6 large folded plates in back pocket, 49 halftones and zincs. Cloth.
- The Indoor Gardener.* By Daisy T. Abbott. 117 pages, illustrated. Cloth.
- Normal and Abnormal International Capital Transfers.* (Studies in Economic Dynamics, No. 1.) By Marco Fanno. 120 pages. Paper.
- Guatemala, Past and Present.* By Chester Lloyd Jones. 420 pages, 62 halftones, 19 zincs. Cloth.
- Problems of Administration in Social Work.* By Pierce Atwater. 319 pages, 1 zinc. Cloth.
- Food Score Cards.* By Clara M. Brown and others. 4x6 inches.
- The Kosher Code of the Orthodox Jew.* By S. I. Levin and Edward A. Boyden. 243 pages. Cloth.
- Let's Talk about Your Baby.* By Dr. H. Kent Tenney, Jr. 115 pages, line drawings (7 halftones, 7 initial letters). Cloth.
- The Privy Councillors in the House of Commons, 1604-1629.* By David Harris Willson. 332 pages. Cloth.
- Chemistry and Medicine.* Edited by Maurice B. Visscher. 296 pages, 26 pages of zincs, 9 halftones. Cloth.

Respectfully submitted,

MARGARET S. HARDING, *Director*

MINNESOTA UNION

To the President of the University:

SIR: I submit the report of the Minnesota Union for the years 1938-39 and 1939-40, as prepared by G. Ray Higgins, manager.

The biennium 1938-40 has marked the close of a quarter of a century of service as well as terminated an interesting period of development. The Union has experienced a maturing process through the construction of the Coffman Memorial Union building and the enlargement of its sphere of influence.

Changes have always been the fortune of the Union. In the early years the difficulties were mainly financial and were the outgrowth of a policy of voluntary membership. Later came the necessity for enlarging and improving the available facilities of the building. Recently the task of formulating and directing a program which would contribute to the educational development of all the students has occupied a major share of time and energy.

One of the major difficulties, which, until recently, seemed insurmountable, has been the need for larger, finer physical facilities which would combine the social and recreational interests of both men and women students. The construction of the Coffman Memorial Union removes this problem.

New Union campaign.—The efforts which have made the new Union building an actuality began almost twenty years ago. The steps were enumerated in the *President's Report for 1936-38*, pages 73-74. In July, 1938, the Greater University Corporation agreed to assume responsibility for a drive to raise funds which would supplement the \$891,000 from the Public Works Administration and the \$750,000 available from other university sources. Toward this latter total, the Union Board by its farsighted policy of maintaining a large financial reserve was able to provide \$125,000.

New Union organization.—While the construction of the building was in progress, a special committee appointed by the president gave consideration to the problems created by the centralization of all the agencies and activities within the one building. The committee, composed of faculty, staff, alumni, and student members, was charged with the responsibility of recommending a plan of organization and control which would be adaptable to the new conditions and facilities.

On April 24, 1940, the committee presented its findings and recommendations to the student body for ratification. Following approval by the students, the Regents approved the new Union constitution on May 10, 1940.

The plan established the Minnesota Union as a department of the University responsible to the president. A division of responsibility in the operation and control of the building was also provided. The Service Enterprises will direct all food service activities; the Department of Buildings and Grounds, the custodial activities; the Minnesota Union Board, the remaining operating problems, and the direction and planning of the social, recreational, and cultural programs.

The Union Board is to be comprised of six women and nine men students elected from the University at large by the proportional representation method; four faculty members appointed by the president of the University; and one alumni member appointed by the General Alumni Association.

At a special student election on May 23, 1940, the 15 student members were elected to the governing board as provided for in the constitution. William T. Middlebrook, comptroller, Roland Vaile, professor of economics and marketing, E.

G. Williamson, co-ordinator of student personnel, and Evron M. Kirkpatrick, assistant professor of political science, were appointed by President Ford; and E. B. Pierce was appointed by the General Alumni Association.

Following the elections and appointments, the first meeting of the board was held on May 31. At this and succeeding meetings the board proceeded rapidly to cope with the many problems confronting them in the new situation.

Union staff.—G. Ray Higgins, who has served as manager of the old Minnesota Union for ten years, was named as director of the Coffman Memorial Union. Harvey W. Stenson, who has been assistant to the dean of student affairs for four years, and Miss Mary Hamilton, who has been on the staff of the General College during the past year, were appointed program consultants.

Budget.—Of major concern to the board was the preparation of a budget for the year 1940-41. After careful study it was deemed necessary to employ fourteen full-time Union staff members in administrative and supervisory capacities and ten as a custodial staff. Other items of expense were estimated upon the basis of past experience in other comparable Union buildings and upon costs based upon Buildings and Grounds averages on this campus.

The total budget was estimated at \$105,000. Of this, \$35,850 was set as salary expense for the full-time and part-time staff who will give the necessary administrative, supervisory, and operating control, while \$12,400 was set aside for custodial and maintenance salaries. In addition, custodial and maintenance costs were figured at \$25,000, with operating expenses totaling \$31,500. Of the latter, an estimated total of \$14,000 was provided for a Union program.

In preparing the budget, the board was cognizant of the fact that a bonded indebtedness of \$400,000 is outstanding against the Union. The necessity of meeting interest and principal payments will be always in mind during the next decade.

National conference.—A major activity in 1938-39 was the planning and direction of the National Conference of the Association of College Unions. The association was formed in 1920, "to provide a medium through which its members may co-operate in advancing their common interests, and to encourage and assist in the organization of Unions in colleges and universities." Of the 72 organizations which either control or contemplate construction of Union buildings, 56 are affiliates of this association.

The nineteenth annual conference of the association was held here on December 1, 2, and 3, 1938.

Attending the session were 115 visiting delegates representing 36 colleges and universities. Of the delegates, 46 were directors and Union staff members, one was a dean of men, another a dean of women, and the remainder were student officers.

Farm Campus Union.—Prior to the reorganization of the Union on the Main campus the University Farm Union underwent a constitutional and material readjustment. This included an expansion and remodeling program to improve the facilities, as well as the combining of social and recreational opportunities for men and women students on the Farm campus. The Farm Union Board remodeled and equipped space in Old Dairy Hall which doubled the area already devoted to Union functions in the building. To the original facilities which included a men's lounge, a game and lunch room, and a reading room, there were added a co-educational lounge, a women's lounge, a small soda fountain, and a kitchenette.

The necessity of changing the organizational structure to provide for the inclusion of women led to the drafting of a new constitution which was ratified by the students, and approved by the Board of Regents on May 10, 1940. This provides

for control of the Union by a Board of Governors of ten student members, nine of whom are elected as representatives of the three college groups: Agriculture, Forestry, and Home Economics; and the president of the Farm Students' Council; the dean of Agriculture, Forestry, and Home Economics; the dean of women; and two faculty members appointed by the dean of the college.

By action of the Board of Regents the Farm Union will receive 80 per cent of the general Union fee paid by Farm campus students.

Union program.—The Union Board of Governors and its committees have continued the expansion of the social, recreational, and cultural program. Greater emphasis has been given to those programs which stimulate an appreciation of music, art, and creative use of leisure time. In the area of social and recreational interests the trend has been toward informal and inexpensive functions which have enabled the socially inexperienced student to find a social outlet. Surveys have shown a 15 per cent increase in the student participation in Union programs over the 70,000 as reported in the last report.

Conclusion.—Before the Minnesota Union Board and its staff lies a future which presents an interesting and stimulating challenge as well as numerous difficult problems. Of special interest to the Union will be the task of securing a general student acceptance and utilization of the facilities and participation in the Union program. Complicating this problem are the established "time and place" habits of the present student population, the somewhat distant location of the building, and the Washington Avenue traffic difficulties. Combined with this student utilization will be the necessity of creating in the minds of students an attitude of personal pride, ownership, and responsibility for the fine building, its artistic decorations, and furnishings.

The challenge which awaits the Union lies in its unique opportunity for creating and directing a program of social, recreational, and cultural activities which will provide opportunities for students in extracurricular experiences that will develop qualities of personality, character, and leadership. To accomplish this task without disrupting the effective programs of other campus agencies is the avowed aim and objective of the Union Board.

Respectfully submitted,

E. B. PIERCE, *President,*

Minnesota Union Board of Governors

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

To the President of the University:

SIR: The following report of the Department of Military Science and Tactics is submitted for the biennium 1938-40.

Units.—Coast Artillery, Signal Corps, and Medical ROTC units are maintained at this University. Enrolment in the Signal Corps is restricted principally to students in the Department of Electrical Engineering. Enrolment in the Medical Unit is restricted to students in the Medical School. The Coast Artillery Unit is open to students of all colleges of the University provided such students have completed or will complete during their freshman year, plane trigonometry and higher algebra. With the exception of the year 1934-35, which immediately followed the change from compulsory to voluntary training, there has been no material change in the strength of the ROTC since 1934. The relatively small decrease in enrolment in 1939, shown in Table I, is probably due to the fact that the Naval ROTC unit was established here at that time. Many students come to the department throughout the year to inquire about the ROTC. Many of these students do not have sufficient time left in college to complete the four years of instruction which lead to a commission.

TABLE I. AVERAGE ROTC ENROLMENT

	1938-39					1939-40				
	Basic		Advanced		Total	Basic		Advanced		Total
	1st yr.	2nd yr.	1st yr.	2nd yr.		1st yr.	2nd yr.	1st yr.	2nd yr.	
Coast Artillery										
Corps	297	109	57	64	527	230	123	64	48	465
Signal Corps	27	13	11	10	61	18	18	11	11	58
Medical Corps	15	19	9	11	54	24	19	10	8	61
Totals	339	141	77	85	642	272	160	85	67	584

Equipment and training.—In accordance with the policy enunciated by higher military authority, more emphasis is being placed on practical training with the technical equipment pertaining to the various arms of the service. Little can be done along this line however with the limited and considerably antiquated facilities at our disposal. We have been informed that a modern antiaircraft gun with the necessary fire control equipment is available for issue to this unit. However, we cannot make use of this gun until proper space is provided on the ground floor where the gun and fire control equipment can be emplaced for drill throughout the school year. The present Armory is used jointly by the Army ROTC, the Navy ROTC, and the Department of Aeronautical Engineering. In addition, it is used for various other university activities, including a dressing room for the University High School students. The building is old and in poor repair and (except for the rifle range and storeroom, which are excellent) is totally inadequate. It is urgently recommended that a suitable armory be provided for use of the Army and Navy ROTC. Such a building should be sufficiently large to emplace for drill all types of equipment used by an antiaircraft regiment, including antiaircraft guns, automatic weapons, a searchlight, and a sound locator together with the necessary fire

control equipment, field telephones and other accessory material, also the necessary Signal and Medical Corps equipment for instruction of those units. It should also have the necessary classrooms, storerooms, and rifle range, as now provided. There is also need for a map problem room provided with tables, chairs, and a blackboard where students may work problems. Classrooms should be provided with projection booths for the use of our balopticon and moving picture machine. These are especially useful for instruction in military history, tactics and technique, gunnery, orientation, weapons and materiel, the employment of Signal and Medical Corps units, and many other subjects. Only by such an installation can these units function at anywhere near their maximum efficiency. The much needed practical instruction thus afforded would not only simplify and improve the theoretical instruction but it would provide a reasonable degree of assurance that reserve officers who complete the course are qualified to perform their duties properly in the military service. In the event that a suitable armory cannot be provided, a gun shed as an addition to the present armory should be provided.

ROTC camps.—Table II indicates the number of ROTC students from this unit attending the various branch camps during the summers of 1938 and 1939.

TABLE II. NUMBERS ATTENDING ROTC CAMPS

	Summer 1938	Summer 1939
Signal Corps, Camp Custer, Michigan	10	12
Coast Artillery Corps, Fort Sheridan, Illinois	68	52
Medical Corps, Jefferson Barracks, Missouri	20	14
Ordnance Department, Camp Bullis, Texas	6	8

Organized reserve active duty training.—Table III indicates the ROTC graduates from this unit who have received active duty training as reserve officers for periods of two weeks at organized reserve camps during the summers of 1938 and 1939 immediately succeeding their graduation.

TABLE III. NUMBERS RECEIVING TWO WEEKS ACTIVE DUTY TRAINING

	Summer 1939	Scheduled for Summer 1940
Coast Artillery Corps, Fort Sheridan, Illinois	37	22
Signal Corps, Camp Custer, Michigan	4	.....
Medical Corps, Fort Leavenworth, Kansas	8	.....
Medical Corps, Carlisle Barracks, Pennsylvania .....	.....	5
Ordnance Department, Fort Des Moines, Iowa	3	.....

Employment.—In addition to the training indicated in Tables II and III, 14 graduates accepted during the biennium, one year's active duty with the regular Army under the provisions of the Thomason Act, two have accepted commissions in the U. S. Marine Corps, one is on a probationary flying status with the U. S. Navy, and seven are undergoing flying training at the Air Corps Training Center, Randolph Field, Texas. Other ROTC graduates because of their ROTC training have been given jobs as company officers in CCC camps. This department has been informed that certain industrial organizations give priority to ROTC graduates because of their ability to handle men. Table IV shows the total number of reserve officers commissioned during the biennium.

TABLE IV. ROTC GRADUATES COMMISSIONED

	Organized Reserve Corps						Total
	Coast Artillery Corps	Signal Corps	Medical Corps	Ordnance Department	U. S. Marine Corps	Active Duty (R.A.) One Year	
1938-39	51	7	9	6	1	9	83
1939-40	33	11	8	6	1	5	64
Total	84	18	17	12	2	14	147

Library.—The library of the Department of Military Science and Tactics consists of approximately 310 volumes. About 45 books have been added since the last report. These include: *Seventy Years of Military Training*, a history of the department from 1869 to 1939, written by Lieutenant Colonel A. E. Potts, former P.M.S.&T.; and a number of books from Major Coburn L. Berry's private collection and from the collections of other members of the Military Department faculty. A number of books on military history have been purchased by this department. Approximately six volumes including nautical almanacs have been furnished from the University of Minnesota Library.

Rifle team, 1938-39.—Rifle teams representing the University and sponsored by the Reserve Officers' Training Corps continued to dominate intercollegiate shooting in the Middle West, and won a total of eight championships in different classes, including the National ROTC Intercollegiate Championship. This marked the first time Minnesota had won this honor. In addition to eight team trophies, individual medals and awards totaled sixty-one.

1939-40.—During the past year the Rifle Team has surpassed its previous records. It repeated its victory in the National ROTC Intercollegiate matches and in addition entered the Minnesota State Championships and came out in first place competing against professional shooters armed with telescope-equipped weapons. It won a total of seven team trophies and thirty-seven individual awards. In the annual selections for All-American team members, made by the National Rifle Association of Washington, D.C., Minnesota placed two men on the first team of ten shooters.

In addition to the above competitive records of this period, it might be added that over two thousand students other than ROTC members received training in rifle marksmanship. Included in this were interfraternity matches, orthopedic gym, intramural groups, university women, faculty members, employees, and both boys and girls of University High School. During this period a special three-hour-a-week one-credit course for women was arranged for the spring quarter. It is believed that this is one of the few institutions in the United States offering such a course. During the past year (1940) it was necessary to limit the course to one hundred women due to lack of facilities.

Textbooks.—The standard textbooks used by the students are the *Basic ROTC Manual* and the *Advanced ROTC Manual*. These have been supplemented by such other manuals and publications as *Manual for Courts-Martial*, *U. S. Army, Infantry Drill Regulations*, various maps, mimeographed data extracted from War Department special texts, etc. Instructors use a much wider variety of source material for their lectures.

Faculty.—The faculty consists of the P.M.S.&T., with the following assistants: two Coast Artillery officers, one Signal Corps officer, one medical officer, and four sergeants. We are one officer short of the number authorized and required to handle properly all classes. The War Department is unable at present to furnish

an additional officer due to a shortage in commissioned personnel. The services of reserve officers who are still undergraduates are used to some extent as instructors to meet this deficiency. Such officers are given inactive duty credits towards promotion to compensate for their services.

Student activities.—A survey of extracurricular activities indicates that ROTC students, especially the advanced students, take a leading part in many of the student activities, other than ROTC affairs. A considerable number hold offices in various fraternities and societies at the University.

Company E, Second Regiment, Pershing Rifles in competition with three other schools has won the regimental gold cup for excellence for the past six consecutive years.

Educational standards.—In selecting students for the advanced course, preference is given to students with high academic rating in other departments. This is done to discourage neglect on the part of students, of work in other departments, and to maintain a high standard in the ROTC.

This department has maintained the official rating of "Excellent" awarded by the corps area commander, based on annual War Department inspections.

Respectfully submitted,

CHARLES A. FRENCH, *Lieutenant Colonel,*
Coast Artillery Corps, P.M.S.&T.

DEPARTMENT OF NAVAL SCIENCE AND TACTICS

To the President of the University:

SIR: The following report of the Department of Naval Science and Tactics is submitted for the biennium 1938-40.

History.—The Naval Reserve Officers' Training Corps was authorized by the Act of March 4, 1925, which provided for the establishment and maintenance in civil educational institutions of naval training leading to commissions as naval reserve officers of qualified graduates. The total personnel was limited by this act to twelve hundred. In 1926 Naval Reserve Officers' Training Corps units were established at the following institutions: Harvard University, Yale University, Georgia School of Technology, Northwestern University, University of California, and the University of Washington. In 1936 Congress increased the number allowed for the training to twenty-four hundred and units were established in 1938 at the University of California at Los Angeles, and at Tulane University of Louisiana. In 1939 a unit was established at the University of Minnesota, and in 1940 units will be established at the University of Michigan and the University of Oklahoma. The unit at this University was established in the summer of 1939. Seventy-six students, the quota allowed by the Navy Department, were regularly enrolled in the unit and thirteen additional students were allowed to take the course in Naval Science. Instruction was started in the fall quarter of the 1939-40 academic year, continued through the winter and spring quarters, and during the summer fifty of the students were given practical instruction during a cruise on the U.S.S. "Wyoming" (training battleship) from June 17 to July 13, inclusive.

Purpose.—The purpose of the Naval Reserve Officers' Training Corps is to provide systematic training and instruction in essential naval subjects for university students in order to further the plan for national defense. This mission will be accomplished by

a. Qualification of selected students for appointment as ensigns in the Naval Reserve or second lieutenants in the Marine Corps Reserve, thus assisting in meeting the demands for increased commissioned personnel in time of national emergency.

b. Education of students who fail to complete the entire course so that they will be of value to the navy in time of national emergency in proportion to the time spent in the corps.

c. Dissemination of information concerning the Navy and the Marine Corps, their purposes, ideals, achievements, and handicaps, thereby gaining increased public interest in the maintenance of adequate naval defense.

Organization.—The head of the Department of Naval Science and Tactics at each university is a captain or senior commander of the regular navy, with many years of experience afloat. He is assisted in the administration of his duties by regular naval officers of from seven to twenty years' service who are assigned to this duty by the Navy Department, and by retired enlisted men of the rank of chief petty officer who have been transferred to the Naval Reserve after at least twenty years active service.

For the first year of operation at this University (academic year 1939-40) three officers—a captain, a lieutenant commander, and a lieutenant of the U.S. Navy—assisted by four chief petty officers of the U.S. Navy, were assigned by the Navy Department. An additional officer (commander, U.S. Navy) has been ordered to report for the academic year 1940-41, and the staff will probably be increased to a minimum of five officers and four chief petty officers by the academic year 1941-42.

The normal quota for each Naval ROTC unit is 200 students divided into the four classes. A quota of 76 students was assigned to Minnesota for the first year. For the academic year 1940-41 a limit of 135 has been assigned, and this will be increased yearly until the allowance of 200 is reached.

Naval Academy appointments.—Three regularly enrolled students of the unit may be nominated each year to take the entrance examinations for the U.S. Naval Academy. During the first year of operation of the unit at the University, one student has been successful and reported to the Naval Academy on June 19, 1940.

Facilities.—At present, classroom and drill facilities are adequate. Additional space will be required when the unit reaches its full strength. A navy four-inch gun is now stored in the Oak Street Laboratories of the Institute of Technology. Space should be provided for setting up this gun in order that it may be used for instruction of the students.

Property.—The value of government property now furnished by the United States to the University of Minnesota for instruction of the Naval ROTC amounts to \$48,000. The condition of storage, with the exception of the four-inch gun previously mentioned is excellent, and the University has sustained no property losses.

Student activities.—Student morale is excellent; the outlook for responsible leaders in the first class enrolled (1943) is encouraging. A naval fraternity has been organized by the students to further their intramural athletic and social activities.

Rating.—As a result of the annual inspection by the naval district commandant, the unit received an excellent report.

Respectfully submitted,

F. H. KELLEY, *Captain, U.S. Navy,*
Professor of Naval Science and Tactics

UNIVERSITY NEWS SERVICE

To the President of the University:

SIR: The past year has been a normal one for the University News Service. Each year a certain number of special activities come up in which its co-operation is sought. Among these during the past year have been the meeting in Minneapolis of the Geological Society of America, for which all advance publicity was handled by this office; the fiftieth anniversary of the School of Dentistry, on which much work was done; the fiftieth anniversary of the Medical School; the yearly Sigma Xi series; and Schoolmen's Week. Apart from the constant stream of unforeseen material, the News Service handled publicity material for the new Naval ROTC unit, for much of the work of the Civil Aeronautics Authority's flight training program, for convocations, lectures, the University Art Gallery, Station WLB, and the Center for Continuation Study.

News Service activities.—The News Service is conducted on the theory that the University of Minnesota, as a public institution, is expected to help keep the public informed of its activities and to give aid to the newspaper and magazine press, and the radio, in reporting legitimately the activities of the state's most important single institution.

Once a week, with an occasional lapse, a news release is sent to the weekly papers of the state. Average use of this material is good. Effectiveness of a story sent to the weeklies depends not so much upon the volume of material as on one's ability to find and send the kind of story a country weekly will print.

Releases to the major newspapers are in typewritten form, and as a rule, several a day, of varying lengths, are sent out. An effort is made to reach the state dailies, about twenty in number, through the Associated Press and the United Press, and a new direct service to these papers is in prospect.

Many requests for material are handled, replying to individuals, trade papers, and magazines, and to such departments as the science section of the *New York Times*, Science Service, and similar outlets.

Minnesota Chats is published twelve times a year by the News Service. The University of Minnesota *Calendar* is published eight times a year.

The News Service consults with many newspaper people, answers questions, and provides many tips about stories and pictures on which the papers work through their own staffs. It arranges each year for the distribution of many pictures. During the past year the News Service has made a special effort to be of service to the General Extension Division and to the Summer Session. It also co-operates with the press in the reporting of meetings of the Board of Regents, from which much important news emanates.

The News Service edits the Official Daily Bulletin of the University, and endeavors at all times to co-operate with the *Minnesota Daily*.

The News Service handles athletic publicity. This phase of the work reaches a broad clientele of papers, magazines, radio stations, and picture services. An effort is made to keep the athletic publicity co-ordinated with the educational interests of the institution. The finest of co-operation is received from the Department of Physical Education and Athletics.

Much material emanating from the News Service is found useful by the *Alumni Weekly*.

Respectfully submitted,

T. E. STEWARD, *Director*

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