

REPORT OF THE  
TASK FORCE ON THE QUALITY OF GRADUATE EDUCATION AND RESEARCH

April, 1984

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**Report of the**  
**Task Force on the Quality of Graduate Education and Research**

Summary of the charge to the Task Force from President C. Peter Magrath:

"The task force [on the quality of graduate education and research] is being established as part of the current cycle of institutional planning... I am...personally strongly committed to the pursuit of this topic. It obviously involves an area that is of primary importance to an institution such as the University of Minnesota. Addressing it at this time is especially appropriate, since recent national reviews and rankings of graduate programs have pointed up both our considerable strengths and some of our potential weaknesses. It is of course not our intention to substitute a crash program limited to a particular planning cycle for the continuing attention that must be paid to the disciplines and programs that constitute the core of a major research university. Rather, we are focusing attention on this area at this time in order to develop a strategy for addressing more systematically the many complex questions that have to do with the quality of our graduate and research enterprise. I am looking to the task force for recommendations concerning new or revised policies, steps that might be taken to assess more quickly and more regularly the quality of graduate programs, organizational issues that have a bearing on the topic of the task force, funding arrangements, etc."

REPORT OF THE TASK FORCE ON THE  
QUALITY OF GRADUATE EDUCATION AND RESEARCH

The charge of the Task Force raises some basic questions about the role and purpose of graduate education and research at the University. In one of the early years of the Graduate School, a new Dean, Guy Stanton Ford, in his first report to the President went to the heart of the matter.

With the organization of the Graduate School upon an independent basis, the University of Minnesota may be said to have attained its majority. By this act it gave notice that it would henceforth take its place, not as a parasitic institution, living upon the scientific productions of other institutions and other times, but as a contributing member in the advancement of science--the highest function for which universities are organized.

Ford was speaking as a scholar and as an administrator; and if we understand his term "science" to include all branches of knowledge, we can still approve his vision of the University. But we must answer the skeptic's questions, "Why not live on the production of other universities and other times? Why should a public institution, supported in part by the taxpayers of the State, commit resources to what we must acknowledge are the most expensive aspects of the University's activity?" The skeptic may not question the abstract value of graduate education and research but may only wonder, "Why at the University of Minnesota?" A clear answer is to be found in the extraordinary impact that an American university always has on its region wherever its graduate education and research are conducted at a high level of excellence.

Since the end of the Second World War, all modern industrial societies have recognized the importance of graduate education and research by fostering the growth and development of institutions that can carry on fundamental research in a wide range of fields and also provide an advanced education. Some countries acknowledge the crucial importance of these activities by

allocating large amounts of central government resources to support a few major universities and, perhaps, research institutes. These institutions--the University of Paris, the Grandes Ecoles, the Academies of Science of the Soviet Union, Tokyo Imperial University--are national institutions in the strictest sense of the term. They are charged with a national, public responsibility and are financed almost exclusively from central government revenues. In the United States, consonant with our mixed private/public economy and federal governmental structure, we have never had a small set of universities established, administered, or primarily financed by the central government or any of its agencies. Instead, graduate education and research institutions in the United States have been decentralized, and fifteen to twenty major public and private institutions, supported by a mix of federal and state public monies and private contributions, have met the increasingly significant national need.

Minnesotans, always sensitive to the argument that states must contribute to the national commonweal if our federal system is to remain strong and vital, have contributed willingly and with distinction. Since the 1920's, their University has been one of the leading ten to twenty research and graduate institutions in the country. As one of the few that combine a basic core of science, literature, and the arts with professional programs in agriculture, education, health sciences, law, and management, it has a special contribution to make and a special reason for developing and maintaining excellence if the nation's full complement of graduate education and research is to remain strong and vital--an imperative if the United States is to meet its obligations to its citizens and beyond.

But the skeptic, if not moved by altruism, might be alert to self-

interest. A university that is strong in graduate education and research provides enormous benefits to its region and to the state in which it is located. The public rhetoric on the role of graduate institutions today is saturated with references to the relationship between excellence in research universities and growth in high technology fields such as electronics and biotechnology. The Boston and San Francisco metropolitan areas stand out as regions where the local economy thrives even when the national economy is sluggish. These are also areas where the strongest graduate and research institutions in the country--Harvard, M.I.T., Stanford, and the University of California at Berkeley--are located. In Southern California, another region that has shown high growth in new science-based industries, the California Institute of Technology and the University of California at Los Angeles have been important to that development. More recently, Texas on the Austin/Dallas axis and North Carolina with its Research Triangle have made moves to become high technology centers. It is not coincidental that the Universities of Texas and North Carolina, in the last two decades, have shown dramatic increases not just in technical fields but in the overall quality of the graduate education they provide across the board.

The Twin Cities metropolitan area stands beside Boston and San Francisco in the birth and growth of high technology firms in the period since World War II. If one standardizes for population and looks at the growth of science-based firms and industries, this region has a record as good as that of any in the country. Literally hundreds of new firms were born in this area after World War II, and some, like the Control Data Corporation and Medtronic, have grown from modest enterprises to become world-wide leaders. But Minnesota's success is not limited to a few

prosperous firms; whole industries have grown and flourished here. Computers and information storage and processing began in Minnesota, with Sperry Univac producing the first commercial computer and 3-M taking the lead in information storage. The Twin City area is the world center of biomedical engineering, which was placed on a solid base with the founding of Medtronic in 1949. The post-World War II period was also marked by dramatic changes in the food processing industry as General Mills, Pillsbury, and Multifoods were transformed from firms based almost exclusively on milling into the diversified companies that they now represent. New industries like poultry processing, in which Minnesota is a world leader, also grew up at that time. Mining was given a new lease on life when taconite processing became commercially feasible. If in the past Minnesotans had concentrated on preserving old industries and obsolete jobs, ramshackle sawmills would line the Mississippi north of St. Anthony Falls, flour mills would dot the cityscape, and poverty would be a devastating problem for the state. We today are fortunate that energy and intelligence were concentrated on the creation of a new economic structure.

During the time when Minnesota dramatically and successfully shifted from an economy based primarily on extractive industries, with a minimum of material processing, to an economy based on high technology and the provision of management services through world headquarters, the University's Graduate School ranked among the ten best in the country. The physical sciences, engineering, biological sciences, humanities, and social sciences all included departments that ranked in the top ten in the country in 1957 and/or 1964. In addition, there were premier research departments in the Institute of Agriculture; the Medical School, with a



fruitful collaboration between surgery and physiology, was one of the world leaders in research and development of new life-saving medical technologies.

Throughout this period there was a clear relationship between excellence in research at the University and the transformation and growth of Minnesota's economy. The interaction between Medtronic and University research was crucial to the initiation of that firm in the late 1950's and to the later growth of the biomedical industry in this region. Taconite processing was invented at the University. Close ties have existed between the University and the new information processing industry. Modern scientific agriculture would be impossible without a research base in such universities as Minnesota.

The relationship between strong universities and regional economic growth through new firms and industries is not based exclusively on strong engineering programs. What has distinguished the University of California at Berkeley, Harvard, M.I.T., Stanford, and U.C.L.A. (and Minnesota in the late 1950's) is their remarkable across-the-board strength. These are not engineering schools with just a few service departments in the arts and sciences; they are first-rate in the humanities and in the biological, natural, and social sciences. Some universities with a reputable engineering division and a weak arts and sciences core, simply have not had a comparable impact on their regions. The reasons become apparent when we look at some distinguishing features of the Boston, San Francisco, and Twin Cities metropolitan areas. Famous for their quality of life and for the richness of their cultural settings, they attract the kind of people who can make an economy dynamic. To such people, some of the social sciences pursued at a university will be directly useful because they feed the study

of techniques and strategies of management that are crucial to the growth and development of new firms: when young firms fail, they are usually brought down not by inferior products but by uninformed managers. But the arts and humanities also play an important role here. As a rule, the men and women who direct a region's successful firms have been liberally educated themselves, and they expect the communities they live in to offer extensive and diverse cultural opportunities. A university strong in the arts and humanities is needed to provide and support the cultural enterprises that help make a region attractive to its energetic citizens.

Not that the arts and humanities should be valued only for the contribution they make to the economic and cultural life of the region. Along with the sciences and social sciences, the arts and humanities provide the human being's most profound ways of formulating our knowledge of what we are and how we live. A university functions nowadays as a center of knowledge for the region it encompasses, but it cannot flourish simply as a source of practical ideas, technologies, and consultants; it must also be constantly engaged in a quest for knowledge and understanding, apart from any practical application. Accordingly, there is general agreement that the University's core is its programs in the humanities, the sciences, and the social sciences, and that other areas of the University acquire at least some of their effectiveness from being incorporated in a university devoted centrally to the pursuit of knowledge. In the long run, the disinterested pursuit of knowledge for its own sake makes itself felt in a higher standard of human achievements.

This argument leads to a third practical reason why quality in graduate education and research is important. In large universities, excellence in

undergraduate education is heavily dependent on a high-quality, research-oriented graduate faculty. The members of this Task Force share the view that the University must meet those responsibilities to undergraduates that are implicit in the very concept of a public, urban university; but they also agree that these responsibilities cannot be met unless its undergraduate education is based on an atmosphere of intellectual challenge and excitement created by the research endeavors of its faculty and by the dedicated involvement of graduate faculty and their graduate students in undergraduate education. This is the basis of quality undergraduate education at other major research universities whether private or public.

It is difficult, if not impossible, for a large urban public university to offer a first-rate undergraduate education without a strong graduate program and a firm commitment to research in all major areas. The reason is clear. Professors who dedicate themselves mainly to undergraduate education often find the large urban university with oversized classes, little extracurricular campus life, no teaching assistants, and modest commitment to research an uncongenial setting in which to teach undergraduates. Such teachers are frequently persuaded to accept positions in undergraduate colleges which provide a more hospitable environment, leaving the large urban undergraduate college with a faculty which would prefer to be elsewhere. Undergraduate education suffers.

We can see, then, the reasons why excellence in graduate education and research is central and crucial to the University. (1) It meets Minnesota's responsibilities within our federal system for helping to maintain a first-class national research and graduate establishment. (2) It is a sine qua non for a strong, vibrant, and dynamic Minnesota

economy and a vigorous cultural life. (3) It is an essential ingredient in the provision of quality undergraduate education and necessary if we are to meet our responsibilities as an urban, public university. There are, of course, the pragmatic reasons for supporting graduate education and research at the University of Minnesota. There is a more fundamental justification. Rooted deeply in the core of western civilization is the idea that the pursuit of knowledge--the search for truth and beauty--is to be highly valued in its own right. This value is institutionalized in our graduate schools which foster the search for truth and prepare the next generation of researchers and teachers. The mountain of the unknown is infinite, but what is a greater challenge for each generation of finite humans than to master the higher terrain?

The skeptic should become a believer. But to accept the proposition that there must be high-quality graduate education and research at the University of Minnesota is only a beginning. A number of specific steps must be taken to maintain and improve the quality of University programs. Recommendations for action are made in the final section of this report. Important as these actions are, however, they are likely to be ineffective unless there is widespread consensus among faculty, administration, and the Board of Regents on five fundamental assumptions.

1. The commitment to excellence is the basic imperative. The Lilly Task Force commented, "It is not obvious today that the University of Minnesota has a genuine commitment to excellence, especially in programs that lean most on legislative support..." This does not mean that there is no concern with excellence; the very establishment of this Task Force by the President is clear testimony to that concern. But the concern does

not permeate the University, and it does not operate as a crucial consideration in every decision. When the recent national ratings of graduate programs were published,<sup>1</sup> the University of Texas (Austin) had the same number of programs in the top ten as Minnesota, and Change magazine, in its review of the ratings, showed Minnesota and Texas tied for sixteenth place among the country's best graduate schools. The President of the University of Texas commented on Texas' rankings: "I would hope that ten years from now when someone asks which are the best universities, we will be in the top two or three." He went on to add that if his university does not achieve that lofty goal, it will not be for lack of trying. In a similar spirit, some professors and administrators at Minnesota have used the occasion of the ranking to re-dedicate themselves to the pursuit of excellence and to the building of strong departments and a better University. Such a commitment to excellence must pervade the University if we are going to improve the quality of graduate education and research in any significant fashion. When promotion and tenure decisions must be made, when resources are to be allocated or withdrawn, every alternative should be weighed on the basis of its impact on the building of excellence.

2. The quality of excellence is indivisible. Excellence in some fields cannot survive alongside mediocrity in others. Graduate students deserve and expect to find high quality in all the fields in which the University offers programs. If excellence is achieved and maintained only in selected areas, the best students (both graduate and undergraduate) may choose to study elsewhere, and the best faculty may either decline to come

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<sup>1</sup>See Appendix for a listing of the overall ratings as tabulated in Change (May/June, 1983), p. 18.

to Minnesota in the first place or be easily lured away. When quality is maintained unevenly from department to department and from college to college, when mediocrity is permitted to exist anywhere, everyone is likely to feel dissatisfied and even demoralized. A broad base of excellence is necessary if we mean to retain our best programs, our best faculty, and our best students, and to make our full contribution both to the economy and to the quality of life in Minnesota.

In today's environment, attention to building excellence is apt to be concentrated heavily on professional and technical programs. In the public's eye, these are the only fields that seem to have much impact on regional economic growth, and the humanities and the social sciences are ignored or treated as mere service units for students in more "practical" fields. Where this strategy has been tried--to build up engineering and relegate other fields to a mere service role--it has failed. Even the engineering has become second-rate. M.I.T., the best of the technical universities, has quality programs in the social sciences and in the humanities.

This does not mean that every program at Minnesota must be strengthened simultaneously. It does mean, however, that we must, over a five to ten year period, provide support for all our programs and encourage them all to achieve excellence.

It follows from this concern with the indivisibility of excellence that the University of Minnesota should maintain a single Graduate School with jurisdiction over all graduate programs on all campuses. Graduate education on all campuses would be enhanced by greater coordination and cooperation between campuses and among programs. A unified Graduate School is best able to advocate and facilitate this policy. Several models

are appropriate for intercampus cooperation in graduate education: exchange of faculty and students among separate programs on different campuses, branch programs on a campus where some of the degree requirements can be completed, a single graduate program with faculty drawn from two or more campuses, or a single graduate program with faculty on two campuses and students able to complete all degree requirements on either campus. In any case, the Graduate School should set up intercampus committees to bring about greater cooperation between campuses and programs.

3. Graduate education and research are part of the same enterprise.

There is considerable misunderstanding about the nature of graduate education. Many conceive graduate teaching as simply a continuation at a more advanced level of undergraduate teaching. Graduate teaching, however, is not merely an extension of a professor's undergraduate teaching; it is basically an extension of his or her research. Effective graduate instruction in a university typically involves a rich and vital research undertaking, and productive research in many fields requires the participation of graduate students.

4. At the graduate level, there is little difference between major public and private institutions. We compete for the same students, and for the same faculty, and we rely heavily on the same sources for the financing of research. When we seek standards for comparison for graduate programs, therefore, the Big Ten institutions as a whole no longer provide an appropriate basis for reference. Comparisons must be made with the best graduate institutions in the country, whether private or public.

5. At the graduate level, the University must be viewed in a worldwide context. Many taxpayers tend to view the public university as a place

where their children have special access to a quality low-cost education. However appropriate this view may be for undergraduate colleges, it is the death knell for a graduate school. At the graduate level, the University most effectively serves the State by bringing to Minnesota the best students from across the country, in addition to providing opportunities for Minnesota residents who can meet high entrance requirements. To sustain and improve its standing as one of the world's impressive centers of learning, the University must attract first-rate students, hire and retain a distinguished faculty, keep abreast of and contribute to the fund of available knowledge in the world today, and be guided by the highest standards of research and creative performance. Only by welcoming new ideas and able people that come to us from outside can we generate the high-quality research essential to a state that must increasingly live by its wits, and provide Minnesota firms with the trained personnel they need to compete successfully in world markets.

The specific recommendations in the sections that follow have been approached in the light of the situation and assumptions presented above. The problems that are addressed are complex and difficult to solve, but we are convinced that actions in accordance with our recommendations will substantially improve the University of Minnesota's standing among the country's leading universities.



### Recommendations for Insuring a Quality Faculty

To improve the quality of graduate education and research at the University means to enhance the quality of the faculty. The specific steps that should be taken to improve the quality of the faculty are constrained by the fact that resources are limited and must be carefully allocated so that they will have maximal impact.

For the purposes of analysis, we have divided the faculty into two groups: (1) those who will be added over the next few years, and (2) those who are already at the University. The number in the first group is a function of the "replenishment rate" adopted by the University and its colleges. Our assumption is that this rate is going to be modest; 70-80 percent of the faculty who will be at the University in 1990 are already here. There will, of course, be considerable variation; some departments and programs may, in the next few years, include a high percentage of new faculty.

The implications are threefold. First, selection and recruitment of new faculty will require very special attention because each new faculty member is more crucial to institutional vitality, graduate education, and our ability to operate on the frontiers of the disciplines than has hitherto been the case. Second, special efforts and attention must be given to providing means by which faculty can renew themselves and enhance their scholarly or artistic capabilities and productivity. Third, we must be effective in retaining outstanding scholars at the University.

### Compensations

To attract and retain high quality faculty, salaries must be competitive in two ways. First, we must be competitive with respect to other universities of national and international reputation. Failure to provide reasonable compensation (as defined by a variety of market factors within and across professions) ensures that many of the most able and creative people, already committed to the academy, will choose other universities. Second, and more problematic, we must provide direct and indirect compensations that will encourage the most promising young people to seriously consider an academic career so as to become the future generation of teachers and researchers.

### **Recommendations**

1. The highest priority should remain that of seeking legislative appropriations and other funds to make all faculty salaries competitive.
2. While the University provides relatively good fringe benefits compared to other universities, some universities have specific benefits that are very attractive to some faculty. Most notable are university support for home mortgages (this has a particular appeal to young faculty) and tuition grants in some form for the children of faculty members. Such benefits could give us an enormous and effective competitive advantage when we try to recruit or retain faculty. The members of the Task Force recognize that these specialized fringe benefits will be of great help to some faculty and of limited usefulness to others. Therefore, we favor a "cafeteria" benefits package from which all faculty might select those benefits which met their particular needs.

We recommend that the Senate Committee on Faculty Affairs meet with the Vice President for Finance and Operations to propose

additional fringe benefits that would make the University more competitive in recruiting and retaining quality faculty.

3. If the University is to aspire realistically to rank with the top ten research and graduate schools in the nation, it is with the top ten research universities, whether private or public, that salary comparisons must be made. The Big Ten, or some other general group of institutions within the Association of American Universities, is not the most appropriate reference group. The Universities of Michigan, Wisconsin, Illinois, and California at Berkeley and at Los Angeles, M.I.T., Yale, Princeton, Chicago, and Stanford are among the public and private institutions with which we must compete effectively for high quality faculty.

#### Recruitment

Recruitment of new faculty to the University must be informed by the realities of the 1980's. Most significantly, the number of new appointments will be relatively low when compared to the 1960's and 1970's. Correcting mistakes in hiring through the denial of tenure is both difficult and inefficient, and the concern has grown that minimal standards for tenure may become operating standards. Searches are costly both in money and in faculty time. It is, therefore, important to hire faculty who are extremely likely to excel and achieve tenure.

#### Recommendations

4. When it is appropriate, new faculty should be selected from among proven scholars. "Proven" does not necessarily mean "senior," but in many fields the information available on new Ph.D.'s does not allow us to make good predictions on their success in research and teaching. The

research record of the first two or three years after receiving the Ph.D. often provides a much better basis for judging potential. While hiring these people may cost a few thousand dollars more than hiring a new Ph.D., the increased advantage to the University is well worth the greater expenditure.

In those cases where departments or programs can be dramatically improved by senior appointments, we recommend that the administration not hesitate to make them.

5. A special centrally held fund should be established for start-up costs for new faculty. Appropriate uses of this fund would include equipment, space remodeling, and supplemental support personnel for a limited term, among others.

#### Retention and Revitalization

At any one time only a small percentage of the faculty are new. The strength of the faculty is determined more through effective retention and vitalization than through the acquisition of new blood. Vitalization and retention are closely related. Those members of the faculty who remain vital and active in research and graduate teaching are the ones who are most important to retain, but they are often also the ones who are attracted to and sought by other universities. A university that provides opportunities and incentives for faculty to remain vital engenders the institutional loyalty and commitment that makes retention easier.

#### **Recommendations**

6. The University should continue to seek retention funds as a recurring item from the legislature. These funds should be used not only to counter firm outside offers made to individuals we wish to keep, but

also for preemptive retention efforts. Each college should regularly evaluate its faculty and provide appropriate rewards and encouragement to those who, through effective research and graduate teaching, have identified themselves as individuals the University wants to retain. Such retention efforts may involve salary, equipment, space, and other support critical to fostering the work of those individuals.

7. Junior members of the faculty deserve special attention. To continue active research after receiving the Ph.D. and taking on a full load of teaching responsibilities can be difficult. We propose that the University establish a program of junior faculty fellowships. Ten or more junior faculty would be chosen each year in University-wide competition; each would receive three quarters of research appointment with full salary paid from central sources over a three-year period and could draw from a pool to be established for research expenses. This kind of program would at the same time advance the careers of young faculty and create a sense of institutional loyalty.

Sponsorship of junior faculty may take other forms beyond the important one of special monetary awards to support research and scholarly work. Senior faculty might act as guides, facilitators, and mentors to their less experienced peers. Provision of information, advice and help may be particularly important to the integration and success of faculty in underrepresented groups. The University could establish a variety of sponsorship strategies or programs. We recommend that collegial groups take deliberate steps to assist their junior members in their career development.

8. Research professorships should be created for tenured faculty. These

awards would be of limited duration--one to three years--and allow specially focused research efforts to exploit unusual research opportunities. They would not be in lieu of sabbaticals. A rate of one percent of faculty on such professorships in any given year would seem reasonable.

9. The General Research Funds of the Graduate School must be greatly increased and the criteria for their usage expanded. At the present time our Medical/Cancer and General Research Funds total about \$1,500,000. Our leading competitors such as the Universities of Wisconsin and Illinois have, respectively, about \$7,000,000 and \$4,000,000 annually available for similar purposes. At Minnesota such funds should be continually used for seed money for younger or newer faculty, but they also should provide opportunities for more established faculty to develop and initiate new research thrusts, supply matching funds for equipment costs, cover the emergencies that may be created by the temporary loss of outside funding, and support travel related to the development and funding of research projects.
10. To ensure the vigor and productivity of our faculty by increasing their scholarly opportunities, sabbaticals should be made a more viable option than they are at present. Sabbaticals have long been under-utilized and this does not redound to the benefit of the University.<sup>2</sup> For the University to benefit by increased use of sabbaticals, we propose

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<sup>2</sup>Darwin D. Hendel and Jeanne Solberg, in a study conducted in 1983 as part of the evaluation of the Bush sabbatical program, found that about one-third of the faculty who are eligible take a sabbatical during any given year.

greater flexibility in the use of such leaves and the possibility of increased support levels during the leave.

11. Graduate teaching is different in kind from undergraduate teaching and excellence here should be recognized. The Graduate School should establish a set of awards focusing upon faculty achievement in instruction.

A parallel set of awards for excellence in guiding research should be instituted. A secondary purpose of these awards would be to give full recognition to graduate instruction as legitimate activities of the faculty.

12. The Graduate School should undertake to sponsor recurring symposia in selected fields across the University. The product of these symposia published as a serial in the field can bring recognition to the University as well as new ideas and people to our campus. Ten such series at a total cost of about \$100,000 would be an excellent investment in bringing the University to the leading edge in many fields.
13. Incentives, or at least the removal of disincentives, are required for those activities which bring honor and recognition to the University and give it a place in national leadership. These activities include the following: editorships, grant advisory panels, presentations of papers at national and international meetings, travel in connection with the holding of national society offices, publishing works, or putting on shows. Currently these activities are encouraged but not strongly supported with dollars, staff, or merit recognition. Indeed, in some units faculty are discouraged from accepting the responsibilities of senior scholars in their fields because the unit cannot afford the

travel, postage, space, technical secretarial assistance, and other costs associated with these contributions to excellence. We are convinced that the University cannot afford to reject these opportunities, and we recommend the institution of policies that not only make acceptance of such activities the norm, but also provide resources for faculty who take on important scholarly-related outside activities.

14. The Graduate School should explore ways of promoting recognition of existing quality and emerging centers of excellence within the University. Broad recognition of excellence will benefit the University in the recruitment of faculty and graduate students and in the seeking of extra-mural support.
15. Indefinite tenure is a mechanism to protect academic freedom in educational institutions. Appointment with indefinite tenure normally occurs at promotion from Assistant Professor to Associate Professor, after a probationary period of up to seven years. The criteria for promotion are important to assure maintenance of quality of the faculty at the University of Minnesota. The recent Tenure Code revision (which is now being debated in the University Senate) incorporates the criteria for promotion into those for awarding tenure. On occasion, however, indefinite tenure at lower ranks has been granted without promotion, a practice which suggests that job protection rather than protection of academic freedom has been the main criterion in the decision. This is in direct opposition to the stated goals of excellence at the University and should be discontinued.



## Recommendations on Graduate Student Support and Recruitment

The improvement of graduate education requires high quality graduate students. This means that there must be a good supply of high quality applicants and the kind of excellent programs, competitive financial aid, and educational amenities required to entice those who are admitted to accept Minnesota's offer over that of competing institutions.

The task which lies ahead will not be an easy one. The number of seniors graduating from U.S. colleges and universities begins falling dramatically in 1986. But the "needs" of major research universities will not decline commensurately. Unlike the situation in many other countries, universities in the United States are a central and major component of the national research establishment. Basic and applied research done in our universities provides the new knowledge so essential to the well-being of the nation. Graduate students in the role of research assistants are crucial to the vitality of the research effort. But the major research universities also use graduate students as teaching assistants who are integrated into their teaching mission. While the total number of undergraduates in American colleges and universities will decline in the 1980's, the major research universities will not see their undergraduate enrollments drop significantly and will continue to need graduate students as teaching assistants.

Thus, while the supply of new graduate students as measured by the number of graduating seniors in U.S. colleges and universities will be declining, the demand for new students in the major research universities will remain high. Competition for quality graduate students will become fierce. The University must be ready to compete effectively in this new

environment or the quality of graduate programs will decline significantly. It is not in a strong position now. Only about 40 percent of the cost of a graduate education, including tuition, room and board, books, and other necessary expenses are met by financial awards at the University of Minnesota. At the University of Wisconsin it is about 75 percent, and many other institutions including Michigan, Berkeley, U.C.L.A., and Illinois do better than Minnesota in this regard.

Per credit tuition and the application of the funding formula are serious impediments to progress in improving the quality of graduate education. Early in our deliberations, the Task Force members took a position in favor of the abolition of per credit tuition. We did not advocate any specific alternative because the Graduate School immediately took the initiative. It was far more appropriate for the details to be worked out by the Dean working with the Executive Committee of the Graduate School, and, despite the uncertainty we feel about the effect of these new proposals on some classes of graduate students, we commend the efforts to develop a new tuition structure to be put in place by the fall of 1984.

Cost-related tuition poses an equally knotty problem. The 1983 legislative appropriation for the University assumed that tuition would be equal to 31 percent of instructional costs in 1983-84 and 32 percent in 1984-85. At the time that the bill was passed, graduate tuition met 18.6 percent of instructional costs. As pressures arose to set tuition in all units of the University closer to the average of 32 percent, the debate over whether tuition in the Graduate School should be near 32 percent intensified. We have not examined all of the facets of this debate but one conclusion is clear: we must improve our competitive financial position relative to

other major universities regardless of the final resolution of the cost-related tuition debate. Tuition must be stabilized and student aid must continue to rise.

### **Recommendations**

#### Tuition and Student Support

1. The University must closely monitor tuition rates and student aid packages at the major research universities and take the steps necessary to be in a strongly competitive position. At the present time, there must be a dramatic increase in funds for fellowships, teaching assistantships, and research assistantships. Both the number of financial awards available and the size of the stipends associated with them must be increased significantly if we are to be competitive for the next four to five years.
2. Some of our major competition for outstanding students comes from universities that offer multi-year fellowship packages. One of the weaknesses of our graduate fellowship program is that departments and programs must provide the second and third years of support with graduate assistantships. A major effort should be made to provide three-year fellowship packages. This would require tripling funds just to expand the existing program to a three-year program for the same number of students. A start could be made, however, by using funds administered by the Graduate School to generate tuition fellowships for second- and third-year graduate fellows.
3. The University should provide incentives for increasing the number of research assistantships available for graduate students by making determined efforts to acquire outside grants.

4. Some portion of Graduate School fellowship money should be allocated directly to departments and programs by January of each year so that they can be used to enhance recruitment of graduate students and develop graduate programs. Departments and programs should have a great deal of discretion in using these funds.
5. Special attention needs to be paid to what are likely to be increasingly difficult problems in recruiting and retaining first-rate graduate students in certain fields like the humanities and mathematics. Because of the reduced number of academic positions available to people with doctorates in these fields, bright undergraduates are already being discouraged from continuing their studies at the graduate level, but in less than a decade we will need new Ph.D.'s to meet the increased demand for faculty at universities and colleges.

Along with these measures, the University and the Graduate School should look more closely at their own fiscal practices, in particular at the assumptions and formulae that underlie the calculation of the cost of graduate education. Many parts of the University accrue benefits from graduate education and research, but often without financial obligation on the part of those who receive those benefits. Benefits should appear on the credit side of any ledger that seeks to establish the cost of graduate education.

#### Cost Accounting Models and University Resource Allocation

6. We recommend that the Dean of the Graduate School meet with the staff of Management Planning and Information Services (MPIS) to examine the accounting model currently used to compute instructional costs for graduate education. Such an examination could identify changes in

fiscal analysis that would report more accurately the cost of graduate education.

7. An accounting model can deal only with expenditures. The University needs to develop a second model that can encompass benefits as well as costs. We recommend that work begin at once on such a model and that particular attention be given to the benefits of graduate education and research that are real but are not included in expenditure-driven models.

While some of the efforts to improve the quality of our graduate students involve large expenditures of funds for student aid, there are other steps that can be taken that could yield good results without costing any significant amount of money.

#### Other Recommendations

8. The Graduate School should hold workshops for directors of graduate studies and recruitment committee chairs to help them effect the best possible recruiting strategies. Some successful departments should be asked to share their approach to effective recruitment. The Graduate School should take the initiative to this end.
9. A fund should be made available to bring prospective students to the campus and to develop effective means for encouraging the students to come to the University of Minnesota.
10. The time spent by students in degree-related teaching and research should not inhibit reasonable progress toward their degrees. It should be emphasized that the major reason for the University providing funds for graduate assistants is to support graduate education.
11. Graduate students, whether from inside or outside a unit, should be

appointed as graduate assistants only when they are making reasonable progress toward their degrees. In the situation where the appointing unit is not the academic unit, both units are responsible for monitoring progress toward the degree; such monitoring can be facilitated by requiring both units to sign the appointment forms.

12. Regular methods should be developed and implemented for consulting graduate students on policies concerning University libraries. In particular, graduate students need access to new books, and libraries should help them gain it. And furthermore, the purchase of books and periodicals should be a matter on which graduate students as well as faculty are asked to consult.
13. To foster the intellectual and social interaction necessary for academic and professional development, more attention should be devoted to expanding a sense of community among graduate students. We recommend that adequate work/study space be designated for graduate students in their departments and that commons rooms be provided where feasible. Another means of encouraging the growth of a community of graduate students would be to reserve space for them in a single dormitory where a community of scholars could be developed.

## Recommendations on Program Reviews

### Purpose

Program reviews, as mandated by the Board of Regents, are incorporated into the Constitution of the Graduate School and all colleges. Programs and units provided with research funding by the Agricultural Experiment Station are obliged, by federal mandate, to undergo periodic review.

The Task Force on the Quality of Graduate Education and Research strongly supports the continuation of unit reviews. These reviews provide an important, and sometimes unique, means of assessing the current health and future promise of academic programs. In particular, external reviews may be the best way to obtain the information needed to strengthen graduate education and research at the University. But for the reviews to be effective, there must be a commitment by the external reviewers to provide guidance and suggestions that lead to excellence in programs, and there must be a commitment by the University, the Graduate School, and the relevant college to take seriously the report of the external reviewers and implement the recommendations.

We also recommend that a very limited number of super-reviews be undertaken. These reviews would examine broad research areas which span unit boundaries and even college units, and their principal purpose would be to determine how collaboration in research and staffing might provide critical size and encourage new directions in research. The effect of such cross-disciplinary reviews would be to counteract the sometimes inhibiting barriers that the bureaucratic structure imposes and to emphasize the common good that can be achieved through cooperative research, staffing, and graduate-level instruction.

### The Review Process

Members of the Task Force believe that the procedures used in the first cycle worked well. These procedures included the preparation of a departmental self-survey, a visit and report (oral and written) by an external committee, an examination and report by an internal committee, a response by the faculty of the unit, and sessions to consider and act upon the salient recommendations. The Task Force, however, agrees that the costs in time and money are too high to justify the continuation of these "full" reviews for all 180+ graduate programs. In the second cycle, full reviews should be carried out selectively at the discretion of the deans of the Graduate School and the colleges. We estimate that one-half to one-third of the programs would require a standard review. For the most part, these would include the basic sciences, social sciences, and humanities, and the core units of the professional schools. But even in some of these cases the internal committees might play a limited role or perhaps not be used at all.

One of the first tasks of the deans would be to define the set of programs to undergo a full review. The remaining programs could be reviewed by an internal committee or simply through a formal exchange between the programs and the deans.

### Materials

The self-survey report produced in the second cycle should cover the period since the first review and emphasize progress in meeting the recommendations coming out of the first review as well as changes in the composition, character, and functioning of the unit. The budgetary college should be responsible for providing data on fiscal, personnel, and instructional



matters. The Graduate School should provide data on graduate students and graduate faculty.

In addition, comparative data from other institutions should be collected. The appropriate pool of comparable (and competitive) institutions should be determined jointly by the deans and the graduate faculty of the unit. The pool of comparable institutions should not be limited to the Big Ten. The University of Minnesota competes for faculty, funding, and graduate students nationally and internationally, and the comparisons should be conducted at these levels.

The Task Force recommends that the unit self-survey documents be updated every two years. These addenda will provide a record of progress in meeting the recommendations that emerge from the reviews. In addition, this information will reduce the amount of work needed in future cycles and will provide reasonable longitudinal data on the unit.

#### Cycle Length

The Task Force recommends a seven-year cycle, but external circumstances should be taken into account in deciding the timetable. In instances where a unit changes heads, the review would be more profitably done early in the new head's tenure. The format of a review not synchronized with the cycle can be determined by the deans involved.

#### Action on Reviews

External reviews should be more than progress reports; they should result in plans for action that will bring about improvement and excellence. If the process is to be effective and credible, the University must be committed to act on reasonable recommendations made by external reviewers. Such recommendations should be specific and should help the Graduate School

to identify programs that deserve probationary status or that should be discontinued. They should be equally forthright in identifying centers of excellence and suggesting ways to preserve them. For essential units that require aid, reviewers should be encouraged to make specific recommendations on how to solve problems and deal with shortcomings. Indeed, at the conclusion of a review, the reviewers and the University might devise a form of "contract," which would specify both the amount and the nature of the support to be given to the unit in question and would propose a schedule for implementing the recommendations. As a matter of normal academic procedure, even in years when no review is currently being conducted, departments and programs should make a practice of defining and affirming goals and objectives in continuing consultation with deans.

## Recommendations on Central Facilities

### I. Space and Equipment

Workplace and worklife issues are receiving considerable attention in industry, in the public sector and, increasingly, in higher education as concerns for productivity mount. The quality of life of those who work in colleges and universities affects directly the quality and productivity of their institutions. One major dimension of the university as workplace for faculty includes elements of collegial governance and academic culture. Another dimension, to which this part of the report attends, includes the physical environment in which faculty members teach and advise students, engage in research and scholarly inquiry, and provide professional services. Due to the economic pressures of the past decade, new construction has been limited, physical maintenance of campus buildings has been cut back and, in general, expenses for books, equipment, and supplies have been carefully monitored. These and other factors have had a damaging effect on quality of worklife in higher education institutions. The University of Minnesota has not been exempted from these external forces and their internal consequences.

### Recommendations

1. Just as a mature and aging University faculty may be said to be in need of renewal and revitalization, so also are physical facilities built in earlier eras in need of regular maintenance, systematic refurbishment, and remodeling to accommodate new programmatic needs, new research thrusts, and new activities. We recommend that the planning process be improved to include a better recognition of the specific functional use of buildings for academic programs. An assessment of the physical status of University buildings, schedule of refurbishment and remodeling

should also be routinely included in University planning. In this process, faculty in the buildings should be consulted. Particular attention should be paid to the needs of faculty for research facilities.

2. To make the most rational use of space, it is recommended that while many buildings are planned with the needs of the first incumbents in mind, buildings should not be overly customized. At least some portion of the rooms and facilities within new buildings should become available for collegiate or central assignment, as other faculty members and programs demonstrate need for usage. More general purpose planning of new buildings is recommended to assure their adaptability to changing needs over time.
3. In any new building, consideration should be given to setting aside space to facilitate the inter- or multi-disciplinary research activities of the faculty, e.g., applied research in natural resources, genetic engineering, and biotechnology.
4. To conserve and extend the usefulness of equipment purchased with grants and contracts, and to increase the productivity of faculty and graduate students overall, equipment which is not being used by the original project investigators or by others in their departments and is not needed in the long term should be made available for loan to others on campus (including the coordinate campuses), or it should be offered at low or no cost to other higher education institutions or to schools to enhance their technological resources. Where terms of the grant constrain the buying and selling of used equipment, it is recommended that ways be worked out to accomplish transfer of equipment among projects.

5. The Handbook of Research Services (1981) should be updated and disseminated widely.

## II. Libraries

The libraries of the University of Minnesota are faced with four major kinds of problems, all of them interrelated: problems of location, problems having to do with the partition of books and materials among main and departmental libraries, problems of finding money to maintain and improve library acquisitions, and the improvement of library services.

### **Recommendation:**

The following issues must be addressed seriously and soon if the University is to maintain and increase its distinction in research.

1. Location. When faculty and students do most of their work far away from the libraries where their essential books and periodicals are located, the result over a period of years is likely to be diminished and weakened research. This is the situation for a large number of departments and programs at the University of Minnesota, particularly in the humanities. In a more temperate climate, the problem might not be so acute, but Minnesota's harsh winters discourage long walks to a distant library. The University must address this problem and find ways of reducing its impact (e.g., by transferring most of the humanities books to that side of the Mississippi River where most of the humanities are located).
2. Main and departmental libraries. One answer to the problem of difficult access to main libraries is the establishment of numerous departmental or disciplinary libraries. But this solution brings with it a train of other problems, especially that of dividing up among several scattered

libraries those books and materials which are relevant to many disciplines. Research under such conditions may involve tedious and time-consuming visits to (and back and forth between) numerous separated libraries, hardly an efficient way to conduct research. At the University of Minnesota, this division of resources is especially troublesome to those who do research in the biological sciences or whose work involves interdisciplinary research in science and engineering.

3. Money. One way of solving the problem of scattered departmental or disciplinary libraries is to provide enough funds for every such library to buy all relevant books and materials, even when such purchases involve duplication or multiplication of University holdings. Although sufficient moneys are not available now (and are not likely to be soon) to make every such branch library in effect an interdisciplinary library, funds should be found to move some libraries further in the direction of a modest self-sufficiency. But funds are even more urgently needed for other basic purposes: to maintain and expand present library resources, to increase acquisitions, and to maintain the full set of library services essential to support a major research university.
4. Staff. A well-trained and helpful professional library staff sensitive to the demands of scholarship can dramatically increase the usefulness of a library to the research of faculty and graduate students. In order to help the libraries to function most efficiently, the University must work to improve its library personnel policies.

### III. Centralization of Major Research Facilities

Historically, most major universities have managed to provide departments and colleges with the funds required to purchase the equipment necessary to enable their faculties to remain competitive in research and graduate education. Notable exceptions have been in the areas of high energy physics and astronomy where advances in understanding the structure of the atom at one end of the natural order and the universe at the other have required outlays of equipment and facilities that were in the order of hundreds of millions of dollars. One of the mechanisms used by the scientists in those fields to obtain the capital funding necessary for their research has been the establishment of multi-university/government consortia designed in such a way that those who were to be the users would share in the cost. The success of these consortia, which has been considerable, is coupled to the agreement that the users would share in management and in the establishment of priorities for the conduct of specific research projects.

In the immediate future it is unlikely that most areas of research in the natural and social sciences will require the enormous expenditures that are essential for advances in high energy physics and astronomy. However, it is clear that within universities annual expenditures for equipment ranging from tens of thousands to tens of millions of dollars will be required continually if quality research is to be conducted in areas such as computer science; computer facilitated research in the natural, social, and applied sciences; modern engineering, physics, chemistry, and molecular biology.

It is assumed that the burden of meeting these equipment needs may often be beyond the capacity of individual departments and colleges and

occasionally beyond the capacity of individual universities. To assess this, and to determine where centralized management might play a role, we recommend that a comprehensive study be undertaken for the following purposes:

- 1) to inventory current departmental, collegiate, and University policies for the purchase and use of research equipment and facilities;
- 2) to obtain a University-wide inventory of those individual items of equipment purchased during the past five years that cost in excess of \$50,000;
- 3) to obtain an estimate of the rate at which existing equipment that cost in excess of \$50,000 is expected to become obsolete and the anticipated cost of replacement;
- 4) to obtain estimates of the hours per week that major pieces of equipment are currently used and to determine to what extent the equipment could be made available to others when it is not in use;
- 5) to determine to what extent and under what conditions individual faculty members are now sharing their equipment with colleagues from other departments within the University and with faculty members from other universities. At the same time information should be elicited as to what extent University of Minnesota faculty are using equipment from other universities.

When the data are compiled it should be possible to obtain a realistic estimate of the likelihood that the University will be able to meet the future needs of the faculty for equipment and facilities and to what extent more effective use of some equipment would result from a scheme of centralized



but participatory management. It should be possible also to determine whether or not bilateral or multilateral arrangements for the purchase and sharing of equipment between universities warrants consideration.

#### IV. Communications Systems

A key element in the effective use of central research facilities is access. The library and computer resources are the most important and ubiquitous central research facilities to which rapid access is imperative. In this connection, the current effort by the University to design and request bids for a new communications system is most crucial. When the time comes to choose among alternative designs and vendors, University officials should keep firmly in mind the goal of enhancing research through innovative use of the new communications system.

We have not worked out in detail the ways in which creative use of the new communications system can influence research productivity. We do not, in the short term, advocate an "electronic university," but we do believe that the new communications system should be seen as an opportunity which if grasped can enhance research at the University of Minnesota. Rapid and transparent access to the library and to information processing should be of the highest priority. The planned electronic library catalogue is an excellent first step, but it must be made widely available quickly, and it must include not only the main library but departmental and specialized libraries, and not only books but periodicals, serials, and documents. Also close to real-time entry of newly catalogued material must be provided. In other words, to serve research the electronic catalogue must be complete and current. Easy access to task-appropriate information processing and computing facilities is equally important. Switching of tasks to

appropriate hardware should be automatic and transparent.

Beyond these major functions, a number of lesser but important services can be suggested. An on-line listing of requests for proposals (RFP's) received by the University would be very helpful. An on-line listing of grant application deadlines and grant application formats is important. Interactive budget preparation assistance would aid both faculty and support staff. Electronic transmission of proposals to appropriate offices would save much valuable time. Electronic manuscript transmission for pre-publication comment and review might enhance communications between investigators in allied disciplines. One can even envisage a research "bulletin board" for gathering comments on and collaborators for new research endeavors.

The effectiveness of the new communications system in aiding research is not dependent on the hardware alone. It will be necessary to develop the control mechanisms and programs and to provide the instruction required to maximize the usefulness of the communications system to research. The University should make these developments a high priority.

#### V. Recommendation

All these interrelated issues compose one many-sided problem, which in the years of expansion since the Second World War has grown more desperate year by year but has never been fully understood or seriously addressed by any responsible University authority. We strongly recommend that a high administrative official--most logically, the new Vice President for Planning --be given authority to address these issues and be held accountable for finding ways to solve or resolve them. Each campus of the University, however multiple and various its uses, must design or re-design its space

coherently, and the location and accessibility of research facilities must be recognized as issues crucial to the future of the research mission of the University.

### Conclusion

Among American universities, Minnesota is remarkable for the diversity of its missions. It is a national research and graduate university, a land-grant institution, and an urban public university. Each of these designating phrases implies certain obligations and responsibilities. "Land-grant institution" and "public urban university" imply service and undergraduate teaching obligations to the state and region. Increasingly it will be true that these service and teaching obligations cannot be met unless the University cultivates excellence in research and graduate education. We find no conflict among these basic obligations of the University, but it will fail to meet the most significant demands for undergraduate teaching and service at the levels of excellence the State deserves and requires unless it strengthens its research and graduate components.

Table 3—Leading Ph.D.-granting Institutions in the Arts, Sciences, and Engineering, according to Data in the *Assessment of Research-Doctorate Programs in the United States*

(Number of programs in each field with standard scores of 60 or higher in reputation for "faculty quality")

Rank Order	Institution	—				Soc. Sci.	Programs	Programs	TOTAL SCORE
		Phys. Sci., Math	Hum.	Eng.	Biol.		rated 60 or higher	rated 70 or higher	
1	U. of California (Berkeley)	6	9	4	4	7	30	15	45
2	Stanford U.	6	4	4	4	6	24	10	34
3	Harvard U.	5	5	-	4	6	20	12	32
3	Yale U.	6	7	-	6	6	25	7	32
5	MIT	5	2	4	3	3	17	12	29
6	Princeton U.	5	7	4	-	5	21	7	28
7	U. of Chicago	5	4	-	4	7	20	7	27
8	UCLA	5	5	2	6	6	24	-	24
8	U. of Michigan	2	6	3	4	6	21	3	24
8	U. of Wisconsin (Madison)	5	3	2	5	6	21	3	24
11	Columbia U.	5	6	-	4	6	21	2	23
11	Cornell U.	6	6	3	4	3	22	1	23
13	U. of Illinois (Urbana)	4	2	4	4	3	17	2	19
14	U. of Pennsylvania	2	5	1	3	5	16	1	17
15	Caltech	4	-	4	1	-	9	6	15
16	U. of Minnesota	3	-	2	2	4	11	2	13
16	U. of Texas (Austin)	3	3	3	2	2	13	-	13
18	U. of North Carolina (Chapel Hill)	2	3	-	2	4	11	-	11
18	Northwestern U.	1	1	3	1	5	11	-	11
20	U. of Washington (Seattle)	2	-	1	5	2	10	-	10
21	U. of California (San Diego)	2	2	-	3	1	8	-	8
21	Indiana U. (Bloomington)	1	4	-	-	3	8	-	8
21	New York U.	1	4	-	1	1	7	1	8
21	Rockefeller U.	1	-	-	4	-	5	3	8
25	Brown U.	1	3	1	-	2	7	-	7
25	Duke U.	-	-	-	5	2	7	-	7
25	Purdue U.	2	-	4	1	-	7	-	7
28	CUNY Graduate School	-	3	-	-	3	6	-	6
28	U. of Virginia	-	3	-	1	1	5	1	6
30	Carnegie-Mellon U.	1	-	2	-	1	4	1	5
30	Johns Hopkins U.	-	1	1	1	2	5	-	5

neither of which has, as distinguished universities go, a wide range of professional schools, are likely to be rated higher than they would be if professional schools were counted too. Other institutions with many well-regarded professional schools, as evidenced by the two Blau/Margulies studies of the mid-1970s, are likely to rank lower than they otherwise would; these include Columbia and Ohio State University.

Third, the *Assessment* includes only

thirty-two of the largest disciplines—largest in terms of how many Ph.D.'s have been conferred in recent years—and omits many of the smaller ones. Those it omits, to mention only ones covered by the Roose/Andersen study, include Russian, astronomy, developmental biology, population biology, entomology, and pharmacology. The *Assessment* also omits many interdisciplinary departments, committees, and programs. These include some exceptionally strong programs, such as

the University of Pennsylvania's department of history and sociology of science, Columbia's department of East Asian languages and cultures, and the University of Chicago's committee on social thought.

So the aggregate figures should not be taken to reflect the universities' strength, across the board, in graduate education, but rather their strength in Ph.D.-granting programs in the arts, sciences, and engineering in those disciplines that have recently granted

Admissions: With Aid  
Fall 1983

<u>NAME</u>	<u>School</u>	<u>GPA</u>	<u>GRE</u>				<u>Letters</u> O - outstanding E - excellent	<u>Comment &amp; interest</u>
			<u>V</u>	<u>Q</u>	<u>A</u>	<u>PS</u>		
1)	Stanford	3.7	740(98)	-730(93)	-590-590(92)	3 O	American Chubb raves dept. lab asst.	
2)	Northwestern	4.0	760(99)	-720(91)	-800-550(82)	3 O	Guetzkow's asst.; IR	
3)	Gustavus Adolphus	3.9	790(99)	-760(96)	-730-620(96)	3 E	phil. & IR; Walcott tout	
4)	TCU	3.8	690(94)	-720(91)	-700-550(82)	3 O	IR & phil.	
5)	Stanford	3.65	620(85)	-770(96)	-750-480(55)	2E, 1O	Amer; Chubb advisee	
6)	Harvard	3.2	710(96)	-800(99)	-800-620(96)	1 E	Hibbs advisee; excellent paper	
7)	Wellseley	3.82	760(99)	-550(57)	-530-710(95)	3 O	IR	
8)	Knox	4.0	660(91)	-600(70)	-660	3 O	Comparative (China)	
9)	Whitman	3.59	650(90)	-730(93)	-720-620(96)	3 E	American	
10)	Washington University	3.4	730(97)	-790(98)	-780	3E, 1O	American; policy	

END OF BUSH NOMINEES

Admissions: With Aid  
Fall 1983

NAME	School	GPA	GRE				Letters O - outstanding E - excellent	Comment & interest
			V	Q	A	PS		
11)	Calgary-- MA - Phil. U-BA Eng.Lit.	3.5 3.8	97	89	710	94	1E, 1O, 1Ave Phil/ E Pol Sci	"objectively correct norma- tive theory"
12)	Brooklyn College	3.9	93	51	610	99	30	comparative; good paper
END OF POSSIBLE FELLOWS								
13)	Vanderbilt Psych.	2.1 (3.0 scale)	91	82	500	90	2E/O 1 other	theory & public affairs
14)	St. Johns	3.7	94	79	670	79	1E 1O (Prevost) 1 other	pol. phil.
15)	Duke--MS nat. res. Cornell--BS nat. res.	4.0 3.46	83	87	730		2O 1E	nat. res., ag econ.
16)	Yale econ.	3.56	85	91	570		good letters	
17)	Indiana MA-Hist. Wash. Univ. BA-Hist.	3.83 3.54	92	93	800		1E	policy; written several articles
18)	National Taiwan Univ. Elec. Eng. U of Kansas MA -- PS	3.0 3.6	26	96	500	85	2O 1E/O	good paper; written popular articles

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NAME	School	GPA	GRE				Letters O - outstanding E - excellent	Comment & interest
			V	Q	A	PS		
19)	New College of S. Florida	no grades	79	81	670	82	10, 2E	American
20)	George Mason American U MA	3.69 3.97	580	620	590	490	20, 1E	IR; on waiting list last year; good thesis
21)	Nebraska BA Nebraska MA	3.5 3.9	40	52	700		10, 1E, 10/E	paper submitted to <u>AJPS</u> ; former coach
22)	Seoul National Kent State	3.85 3.68	65	94	540		1E, 10, 1 other	policy & methods; has published article
23)	Weber State (Utah)	3.63	62	95 Tocfl 643	520	68	2E/O; 1 other; 1 ave/good	Israeli; speaks Eng. with Fr. accent; IR
24)	Ill State BA Hist of Missouri MPA	3.92 3.87		NO GRE's			20; 1E/O	policy; has done evaluation research
25)	Ottawa BA Soc. MA Soc.	7.1 (10.0 scale) 8.7		NO GRE's			10; 2E	IR; military Sociology
26)	Illinois BSW MSW	4.8 (5.0 scale) 4.8	84	79			30	policy; has published several articles

Admissions: With Aid  
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<u>NAME</u>	<u>School</u>	<u>GPA</u>	<u>GRE</u>				<u>Letters</u> O - outstanding E - excellent	<u>Comment &amp; interest</u>
			<u>V</u>	<u>Q</u>	<u>A</u>	<u>PS</u>		
27)	Ohio State BA Hist. MA Pol Sci	3.2 4.0	81	41	400	76	10; 1E; 1E/O	judicial Slotnick protege
END OF FIRST ROUND TA OFFERS								
28)	Tel-Aviv BA MA	87 90	TOEFL 514 (though Baruch says Goldberg's Eng. is better than his)				20; 1G/E	PA & Policy
29)	Westmont College San Diego State- MA	3.67 3.7	70	87	47		10; 1E/O; 1 other	pol socialization; Nesvold tout; ICPSR summer program
30)	Ripon Econ and 3 other schools	3.7	93	62	620		20; 1E	pol. thought & policy; checkered career
END OF AUTOMATIC TA BACKUPS								



Admissions: With Aid  
Fall 1983

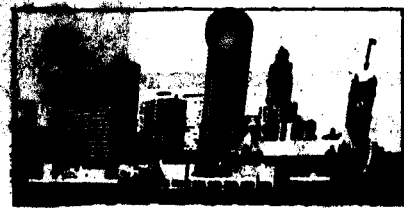
<u>NAME</u>	<u>School</u>	<u>GPA</u>	<u>GRE</u>				<u>Letters</u> O - outstanding E - excellent	<u>Comment</u> & <u>interest</u>
			<u>V</u>	<u>Q</u>	<u>A</u>	<u>PS</u>		
31)	Macalester	3.46	90	41	690	68	3E	IR
32)	UCLA	3.28	77	62	520		2E; 1G	good paper; IR
33)	Augsburg	3.72	21	17	300		10; 1E; 2 others	Recs. from Lundsten, Hedblom, Noonan, Mykleton; IR
34)	National Taiwan U	A-	250	730 TOEFL 533	480		10; 1E/O; U.S. 1G/E profs.	published a lot
35)	American U	3.3		NO GRE's			10; 1E; 10/E	founded journal

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END OF PH.D. ADMISSIONS

## Special MAs: No Aid (unranked)

<u>NAME</u>	<u>School</u>	<u>GPA</u>	<u>GRE</u>				<u>Letters</u> O - outstanding E - excellent	<u>Comment</u> & interest
			<u>V</u>	<u>Q</u>	<u>A</u>	<u>PS</u>		
1)	Univ. of Saskatchewan	6.5 (8.0 scale)	84	90	520	82	3E	Foreign service
2)	Northern Kentucky	3.4	65	74	750	88	2O 1G/E	uncertain
3)	Carleton BA Hist	2.96					1G/E	wants to start Spring qtr; law school later
4)	Keio U BA Econ.	3.1	26	60	410			tennis player, UN job
5)	Santa Barbara	3.53	75	43	380	47	2E; 1E/O	govt. job
6)	Rosary College (3.0 scale)	?	75	62	670		2E; 2G	<u>Dispatch</u> reporter



# Metro news

Marketplace section inside

Minneapolis St. Paul

Monday  
February 28, 1983

## 'U' graduate schools slip in U.S. 'rankings'

By Nancy Paulu  
Staff Writer

The academic prestige of major graduate programs at the University of Minnesota has dropped since 1964, according to studies sponsored by national academic organizations.

Fifteen of the university's 21 graduate programs for which comparative information is available dropped in the rankings for their respective fields. Four went up and two remained the same. The number of university programs ranked in the top 10 also dropped.

University officials are scrutinizing the studies, in which faculty members across the country rated their

peers' academic quality.

The officials say they're concerned because low rankings hurt faculty morale, make it harder to recruit good students and might mean that the university is providing a lower-quality education to graduate students in some disciplines.

Moreover, they say, improvements in the university's graduate programs are necessary for the state's economic development. Such companies as those in high technology "need a steady supply of skilled engineers, managers and researchers, and these are precisely what excellent graduate programs produce," said Robert T. Holt, dean of the graduate school.

The rankings have been criticized nationally for being based too much on a school's or a faculty member's visibility and for favoring large universities over small ones. Some administrators also charge that a department may continue to be highly ranked long after its quality has slipped, or ranked low after its department has improved.

Still, Nils Hasselmo, the university's vice president of administration and planning, said the rankings "have led to a great deal of discussion among university officials." As part of the university's long-range planning, a task force will look at the quality of graduate education and research.

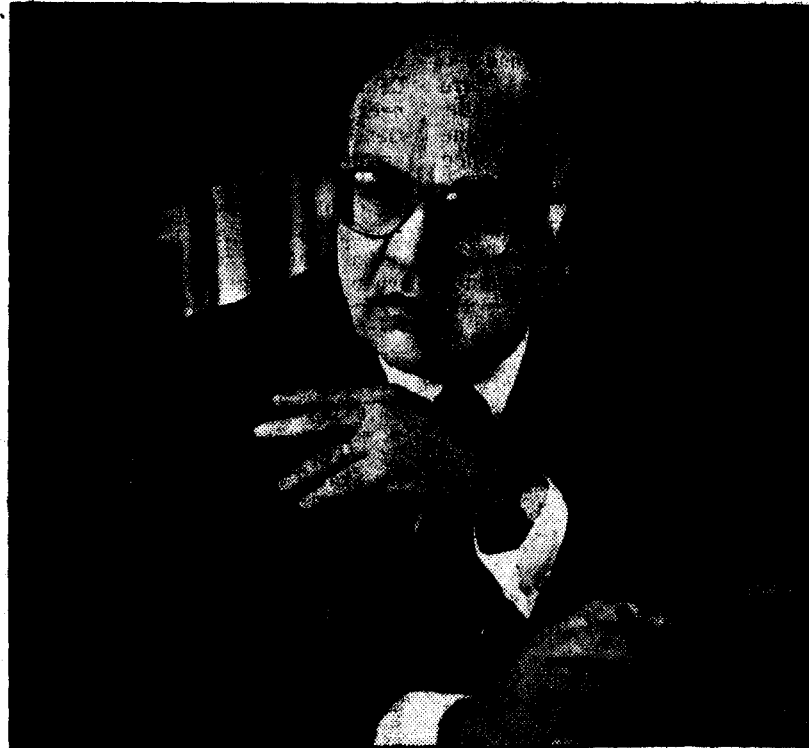
The four departments at the university with improved rankings since 1964 in their areas of study are chemical engineering and geography, (both ranked first in the country), economics (seventh) and political science (10th).

The most significant drops in program ratings were in anthropology (from 16 to 38), chemistry (from 15 to 23), civil engineering (from 15 to 28), English (from 15 to 41), philosophy (from 14 to 25) and physics (from 17 to 24).

Some comparative rankings are available from a 1967 study, although not as many disciplines were ranked that year. Nine of the university's programs were then ranked in the top 10 in their field; in the latest study, six were.

University officials cite several reasons for the decline:

■ Competition from other academic



Staff Photo by Regene Radnicki

Robert T. Holt, dean of the graduate school at the University of Minnesota.

institutions, particularly some in the Sunbelt, has grown. Rankings for several branches in the University of California, including Santa Cruz, San Diego, Irvine and Davis, have improved. So have those at the University of Texas.

The improvements in some cases reflect the amount of money an institution spends. The University of Texas, for example, now has lots of oil money at its disposal.

■ The University of Minnesota has a lower percentage of students enrolled in graduate programs than most other highly ranked research universities. Its overall percentage has changed little since 1960, while percentages at many other universities have grown.

That means university policy decisions are likely to be influenced by programs continued on page 28

### Comparative rankings of University of Minnesota graduate programs



UNIVERSITY OF MINNESOTA							
Department	1964	1969	1981	Department	1964	1969	1981
Anthropology	16	38		Mathematics	15	18	16
Botany	18	19	30	Mechanical Engineering	5	5	5
Chemical Engineering	3	2	1	Microbiology	9	14	25
Chemistry	15	20	23	Philosophy	14	18	25
Civil Engineering	15	17	28	Physics	17	20	24
Economics	11	7	7	Physiology	7	15	22
Electrical Engineering	16	13	19	Political Science	16	12	10
English	15	29	41	Psychology	7	7	7
Geography	7	3	1	Sociology	9	15	22
Geosciences	14	18	28	Zoology	20	24	27
History	16	22	24				

\*Not ranked.

## Programs

the needs and interests of undergraduates more than the graduate students. Over the years, Holt said, that has taken its toll on the graduate program.

David Berg, the university's director of management planning, said about 15 percent of the university's students are in graduate programs. (Total graduate enrollment, including extension students, is about 7,500.)

That compares with about 19 percent at the University of Texas, 21 percent at the University of Illinois, 25 percent at the University of California at Los Angeles and 27 percent at the University of California at Berkeley. (The last two percentages are from 1979, the remainder from 1982.)

■ Faculty salaries at the university are somewhat lower than those at other prestigious Big Ten schools, with which the university is particularly competitive. Salaries at Wisconsin, Michigan and Illinois, which are ranked above Minnesota in many areas, generally are higher and have risen faster than those at Minnesota.

The average compensation, including salaries and fringe benefits, of all University of Minnesota faculty members, from instructors through full professors (including those who work nine months, but excluding those working 12 months) increased to \$35,790 in 1981-82 from \$12,691 in 1966-67, for an increase of 182 percent.

The comparable figures at the University of Wisconsin were \$36,398 in 1981-82, up from \$12,612 in 1966-67, for a 189 percent increase. At the University of Michigan it was \$39,211 in 1981-82, up from \$12,612 in 1966-67, for a 211 percent increase. At the University of Illinois it was \$34,911 in 1981-82, up from \$12,691 in 1966-67, or 175 percent.

Costs per graduate student at the University of Minnesota haven't kept pace with inflation. In some cases the increases haven't been as much in recent years as those in other professional schools.

Between 1976-77 and 1980-81 the amount spent on instruction for each full-year-equivalent graduate student increased to \$6,043 from \$4,774, or

26.6 percent. The annual rate of inflation as measured by the consumer price index during this same four-year period averaged almost 10 percent.

Berg said the following amounts were spent for other full-time-equivalent student costs: law school, to \$4,796 from \$3,147, or 52.4 percent; dental school, to \$14,965 from \$10,131, or 47.7 percent; veterinarian students, to \$12,052 from \$10,629, or 13.4 percent; medical students, to \$7,314 from \$7,737, or a drop of 5.5 percent.

Holt said perceptions about the graduate program played a role in the university's decision to focus on the quality of graduate education and research as a top priority in planning. He is chairman of the committee looking into the matter, which eventually will submit a report to university President C. Peter Magrath.

National studies of graduate schools were done in 1957, 1964, 1969 and 1981. The latest was sponsored by the Conference Board of Associated Research Councils, consisting of the American Council of Learned Societies, the American Council on Education, the National Research Council and the Social Science Research Council. It updates three earlier studies sponsored by the American Council of Education.

In the latest survey, about 5,000 faculty members at 228 colleges and universities were polled. They were asked to rank each school in 32 disciplines on factors including the scholarly quality of its faculty, the effectiveness of its program in educating research scholars and scientists and the size of its library. The rankings were done only in social, biological and natural sciences, humanities and engineering.



UNIVERSITY OF MINNESOTA

Office of the President  
202 Morrill Hall  
100 Church Street S.E.  
Minneapolis, Minnesota 55455

March 7, 1983

Professor Bruce Overmier  
Psychology Department  
N258 Elliott Hall  
Minneapolis Campus

Dear <sup>Bruce</sup> Professor Overmier:

I am writing to ask you to serve on a Task Force on the Quality of Graduate Education and Research. This task force is being established as part of the current cycle of institutional planning. It will deal with one of five areas identified for special emphasis during this cycle and is one of two areas being given immediate attention. The five areas are: the quality of graduate education and research, higher education and the economy of the state (also being given attention at this time), the student experience (focusing primarily on certain aspects of undergraduate education), the international character of the University, and the impact of computation, communication, and information technology.

I am most gratified that Robert Holt, Dean of the Graduate School, has accepted the chairmanship of this task force. I hope that you will be able and willing to join Dean Holt in this important undertaking.

The theme of the task force has been selected after extensive consultation with, for example, the Senate Consultative Committee. I am personally strongly committed to the pursuit of this topic. It obviously involves an area that is of primary importance to an institution such as the University of Minnesota. Addressing it at this time is especially appropriate, since national reviews and rankings of graduate programs have pointed up both our considerable strengths and some of our potential weaknesses. It is, of course, not our intention to substitute a crash program limited to a particular planning cycle for the continuing attention that must be paid to the disciplines and programs that constitute the core of a major research university. Rather, we are focusing attention on this area at this time in order to develop a strategy for addressing more systematically the many complex questions that have to do with the quality of our graduate and research enterprise. I am looking to the task force for recommendations concerning new or revised policies, steps that might be taken to assess more quickly and more regularly the quality of graduate programs, organizational issues that have a bearing on the topic of the task force, funding arrangements, etc.

Let me quote from the plan for the current cycle of planning:

Objective: "To improve substantially the quality of graduate education and research."

Discussion: "One of the best ways, perhaps the best way, to address the question of quality in an institution such as the University

Professor Bruce Overmier

March 7, 1983

Page 2

of Minnesota is through its graduate programs and research. Briefly stated, Minnesota cannot be a high-quality institution without high-quality graduate education and research. The University has many graduate programs and many faculty members of national and international distinction. A trend has been apparent over the past two to three decades, however, which gives cause for concern: a number of graduate programs which used to rank among the top ten to fifteen in the country have slipped in the rankings. To some extent, this may be due to the emergence of new strong programs elsewhere. However, also in terms of more objective criteria, Minnesota appears to have lost ground in the past two to three decades; most of our graduate faculties are considerably smaller than those of the institutions with which we compete; our salaries compare less favorably than in the past with those of many of these institutions, both public and private; and considerably greater numbers of undergraduates are taught by our faculties than by those in institutions with which we compete. A few exceptions to the downward trend suggest that these factors, while important, do not totally determine the quality of graduate programs; strong leadership has resulted in important gains against the odds in some instances. In order for us to safeguard our most important characteristic, that of quality, it is important that we fully understand the factors that produce quality as well as the factors that inhibit it. Having understood these factors, we must take systematic steps towards ensuring that quality programs are maintained and that programs which offer an opportunity for quality improvement are enhanced."

I have asked the task force to report to me no later than May 15, 1983. I do not necessarily expect the work of the task force to be finished by that date, but I feel that it is important that we get recommendations for immediate action. If the task force also wishes to make recommendations that may require further analysis and/or planning before they can be implemented, I will certainly be prepared to consider an extension of the life of the task force. It may also be that some recommendations of the latter kind would be better pursued through other mechanisms.

I sincerely hope that you will be able to accept this important assignment. If you have any questions about the task force or our planning process, please feel free to call either Bob Holt or Nils Hasselmo.

Cordially,



C. Peter Magrath  
President

pw

cc: University Vice Presidents  
Robert T. Holt, Dean, Graduate School  
General Counsel  
University Provosts  
✓ Patricia B. Swan, Chair, Senate Consultative Committee  
Irwin Rubenstein, Chair, Senate Planning Committee

Encl.

PROPOSED INSTITUTIONAL THEMES

QUALITY OF GRADUATE EDUCATION AND RESEARCH

INSTITUTIONAL GOALS:

- To maintain and wherever possible strengthen research activities of the University.
- To ensure a University environment that attracts, retains, and supports high quality faculty, staff, and students.

OBJECTIVE: TO IMPROVE SUBSTANTIALLY THE QUALITY OF GRADUATE EDUCATION AND RESEARCH.

DISCUSSION: One of the best ways, perhaps the best way, to address the question of quality in an institution such as the University of Minnesota is through its graduate programs and research. Briefly stated, Minnesota cannot be a high-quality institution without high-quality graduate education and research. The University has many graduate programs and many faculty members of national and international distinction. A trend has been apparent over the past two to three decades, however, which gives cause for concern: a number of graduate programs which used to rank among the top ten to fifteen in the country have slipped in the rankings. To some extent, this may be due to the emergence of new strong programs elsewhere. However, also in terms of more objective criteria, Minnesota appears to have lost ground in the past two to three decades; most of our graduate faculties are considerably smaller than those of the institutions with which we compete; our salaries compare less favorably than in the past with those of many of these institutions, both public and private; and considerably greater numbers of undergraduates are taught by our faculties than by those in institutions with which we compete. A few exceptions to the downward trend suggest that these factors, while important, do not totally determine the quality of graduate programs; strong leadership has resulted in important gains against the odds in some instances. In order for us to safeguard our most important characteristic, that of quality, it is important that we fully understand the factors that produce quality as well as the factors that inhibit it. Having understood these factors, we must take systematic steps towards ensuring that quality programs are maintained and that programs which offer an opportunity for quality improvement are enhanced.

PROPOSED STEPS:

- 1.) Formulating a strategy for dealing systematically with the question of quality, including the identification of means for evaluating it as well as factors that influence it.
- 2.) Redesigning the existing graduate program review process so that problems of quality can be quickly identified and remedies proposed.

QUALITY OF GRADUATE EDUCATION AND RESEARCH

-2-

- 3.) Ensuring that proper emphasis is given to the quality of graduate education in collegiate and departmental planning.
- 4.) Exploring the feasibility of acquiring additional resources for the improvement of quality.
- 5.) Giving priority to proposals that address questions of quality, including biennial requests, reallocation of funds, and outside fundraising.
- 6.) Amending, or seeking to have amended, policies, rules, and regulations that hinder the development of quality; formulation of new policies.

OUTCOMES AND TIMING:

<u>Outcomes</u>	<u>Timing</u>
Redesign of graduate program review process	April 15, 1983
Strategy paper	May 15, 1983
Unit planning	
Policy amendments; new policies	Oct. 1, 1983
Additional resources	Nov. 1, 1983
Selecting targets of opportunity	Dec. 1, 1983



university  
of  
minnesota  
memo

Date May 7, 1981  
To Jim Borgestad  
From Merolith Poppo  
Subject Distribution of Holt Task Force Report

The Senate Consultative Committee requests that the Report of the Task Force on the Quality of Graduate Education and Research be sent also to the Senate Committee on Research for its consideration.

Professor John Sullivan, incoming chairman of SCR, says the committee is scheduled to meet late next week, so that if members received their copies within a few days, they could have a preliminary discussion then.

The roster of current members is attached. Probably most of the ex officio members already have copies. Thanks in advance for this further dissemination.


University  
of  
Minnesota  
memo

Date Nov 8, 1984  
To Michael Root and Mark Brenner  
From Meredith Poppele  
Subject Report of the Task Force on Graduate Education  
and Research (Holt Report)

SCC has today requested of Jim Borgestad that copies of the Holt Report be sent to the members of SCC, SCEP, and the Planning Committee. At Jim's request, I am sending him a copy of your committee's roster as I got it last fall from the Senate office. So, I think we can expect that copies will soon be mailed individually to all members.



UNIVERSITY OF MINNESOTA  
TWIN CITIES

Industrial Relations Center  
537 Management and Economics Building  
271 19th Avenue South  
Minneapolis, Minnesota 55455 

June 29, 1984

TO: Dave Lilly, Vice President

FROM: Mike Bognanno, Chair, SCFA

RE: SCFA's Reactions to the Holt Taskforce Report on Graduate Education

Bill Weiler called me in early June asking whether SCFA had considered the content of pp. 13-20 in the Holt report. I told him that we had not but that, at his request, SCFA would hold a final meeting for the year to give preliminary consideration to new ways of using fringe benefits to improve faculty recruitment, retention and quality. SCFA met on June 12th. As a result of the conclusions reached at that meeting, SCFA is prepared to share some preliminary reactions with you. Hopefully, this subject will be given more attention in the Fall.

The Holt report identifies three areas in which fringe benefit changes might augment attempts at strengthening faculty quality. The suggestions include (1) making tuition grants to faculty with children enrolled in the University. (2) establishing flexible spending accounts (FSA) for faculty and (3) providing home mortgage support to new faculty. A quick review of SCFA's historical records show that item (1), supra, was given Senate consideration in 1965 and then again in 1974-75. By Senate resolution, SCFA was supposed to conduct an in-depth study of this subject in 1975-76. The study was not conducted. It was not until 1982 that item (1) again surfaced. At that time, SCFA discussed items (1) and (2) but no subsequent action was taken. The idea that the University might function as a "mortgage banker" is uniquely new.

SCFA believes that item (3), home mortgages, enjoys the obvious benefits associated with recruiting and retaining top new faculty. Nevertheless, the Committee is not prepared to endorse this benefit at this time. Before moving ahead, it would be advisable to conduct a survey to determine how viable, from a fiscal perspective, this idea really is. Some have heard that UCLA's attempts at underwriting home mortgages for faculty have failed. SCFA is also afraid of the internal equity problems that might arise from such an initiative. For example, would existing faculty also have access to the more favorable mortgage terms that the University might sponsor? Finally, a benefits program of the magnitude implicit here would no doubt create a drag on resources that otherwise would flow into salary accounts. Thus, the Committee directed me to observe that salaries and not fringe benefits should remain as the single most important aspect of faculty compensation. Thus, salaries and not fringe benefits will require relatively greater augmentation over the years to come.

The FSA idea was favorably received by SCFA. With cash accounts the faculty would be able to "buy" that set of fringe benefits that meets the needs of the individual faculty member.

Further, the set of options available to faculty can easily be expanded under a FSA without "forcing" each and every fringe addition onto every member of the group. For example, if "125-accounts" can be created with a given dollar amount allocated thereto, then the individual faculty member could use it to buy coverage in the following areas: (1) "extended" health insurance, (2) life insurance (up to \$50,000), (3) legal insurance, (4) professional liability insurance, (5) disability income insurance, (6) dependent care, (7) parking, (8) athletic/cultural events, (9) educational development (e.g., books/journals, travel to professional meetings and sabbatical rights), and (10) tuition for children of faculty (expensed at zero cost to the account for the first two children of faculty who attend the University of Minnesota).

SCFA recommends that if initiatives are taken in the FSA area they should incorporate the following ideas:

1. That the basic retirement, Mills II and the basic health plan should not be incorporated into the FSA.
2. That the FSA should permit faculty members with valid out-of-pocket expenses not covered by the basic health plan (or, say, the "deductible" under a professional liability insurance plan) to be reimbursed under the FSA, if a cash balance exists at the end of the fiscal year. SCFA's assumption is that such reimbursements would not be taxed.
3. That the FSA should permit faculty members to take his/her year's end balance as taxable income or to roll it over into a deferred income plan (a 401K salary reduction, for example).
4. That the sabbatical and tuition benefit fringes may not "fit" in a FSA framework (law); however, in any event, these are two benefits that SCFA strongly endorses. There is a particularly strong sentiment on the Committee to build towards a "full-pay" sabbatical program.

As a final suggestion, SCFA believes that it might make sense if your staff would look into the legal standing of ZEBRA's (zero-based reimbursement accounts). No doubt the faculty do experience qualified out-of-pocket expenses that could be paid by the University on a salary reduction basis, thus sheltering that part of salary from taxation.

Dave Lilly  
Page 3  
June 29, 1984

Hopefully, these reflections will be of value to you in your efforts at exploring and expensing fringe benefit alternatives of value and interest to the faculty.

MFB:m

cc: Ken Keller, Vice President  
Robert Holt, Dean, Graduate School  
John Howe, Chair, SCC  
Bill Weiler, Associate Director, Management Info Div.  
SCFA Members