

REPORT OF THE TASK FORCE
ON
HIGHER EDUCATION AND THE ECONOMY OF THE STATE
(Lilly Report)

CONTENTS

1. Correspondence, President C. Peter Magrath to John Howe, SCC Chair (9/26/83)
2. Document: breakdown and summary of the issues raised by the Lilly report (n.d.; ca. 9/83).
3. Correspondence, President Magrath to four Senate committees (8/10/83).
4. Report of the Task Force on Higher Education and the Economy of the State (July 1983).
5. Correspondence, Michael Root, Chair, SCEP, to Academic Vice President Kenneth Keller (2/3/84).
6. Memo, David M. Lilly to All Faculty and Staff (3/29/83)
7. Excerpt from "Overview of the Second Cycle of Planning" (1/12/83).
8. Memo, Ann Pflaum to Hasselmo, Adams, & Heydinger, re Governor Perpich's Economic Recovery Commissions (6/14/83).
9. Document, Notes on Commissions Appointed by the Governor in December 1982.



UNIVERSITY OF MINNESOTA

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

September 26, 1983

Professor John Howe
Chairman, Senate Consultative Committee
614 Social Sciences
West Bank Campus

Dear John:

This pertains to the report of the Task Force on Higher Education and the Economy of the State that we discussed so productively the other day at our SCC meeting. Here is the, if you will, breakdown and summary of the issues raised by the Lilly Report that helps structure consideration of specific issues and questions that need to be addressed one way or another. I hope this will be helpful to you and members of your Committee.

As you know, I will be discussing the issues raised through the Report with my senior administrative colleagues, and this will also be an agenda item of interest to the Regents. We will make sure that we have further dialogue specifically with SCC as you go over elements of the Report.

Cordially,

C. Peter Magrath
President

CPM:ms

cc: Senate Consultative Committee
University Vice Presidents

Enclosure: Summary of the Report of the Task Force on Higher Education and the Economy of the State

TASK FORCE ON HIGHER EDUCATION AND THE ECONOMY OF THE STATE

-- CREATED BY PRESIDENT MAGRATH ON
FEBRUARY 23, 1983, TO ADDRESS ONE
OF FIVE THEMES IN UNIVERSITY'S CURRENT
PLANNING CYCLE

-- ASSIGNMENT: "TO MAKE RECOMMENDATIONS
CONCERNING STEPS THAT SHOULD BE TAKEN
TO ACHIEVE THE OBJECTIVE OF IMPROVING
THE UNIVERSITY'S CONTRIBUTION TO THE
ECONOMY."

-- TO CONTINUE AND EXPAND TRANSFER
OF NEW KNOWLEDGE

-- TO BECOME MORE ACCESSIBLE

-- TO DEVELOP MECHANISMS NEEDED
TO ACHIEVE THESE GOALS

PROCEDURE FOLLOWED

- EXTERNAL SURVEY OF BUSINESS AND
GOVERNMENT LEADERS

- INTERNAL SURVEY OF DEANS AND
DEPARTMENT HEADS

- INTERNAL SURVEY OF FACULTY AND
STAFF

- TASK FORCE REVIEW OF OBJECTIVES AND
GOALS ADOPTED IN CURRENT PLANNING
CYCLE; REGULAR MEETINGS TO DISCUSS
FEEDBACK, ISSUES AND RECOMMENDATIONS

REPORT TO THE PRESIDENT - JULY 1983

- PART I DISCUSSION IDENTIFIES WHO WE ARE
AND WHAT WE ARE CURRENTLY DOING
- MISSION AND ROLE OF THE UNIVERSITY
AS A LAND GRANT INSTITUTION
 - TEACHING
 - RESEARCH
 - SERVICE
- UNIVERSITY AS PART OF AND DISTINCT
FROM SOME 63 INSTITUTIONS IN THE STATE'S
POST-SECONDARY SYSTEM
- UNIVERSITY'S CURRENT CONTRIBUTION TO THE STATE'S
ECONOMY

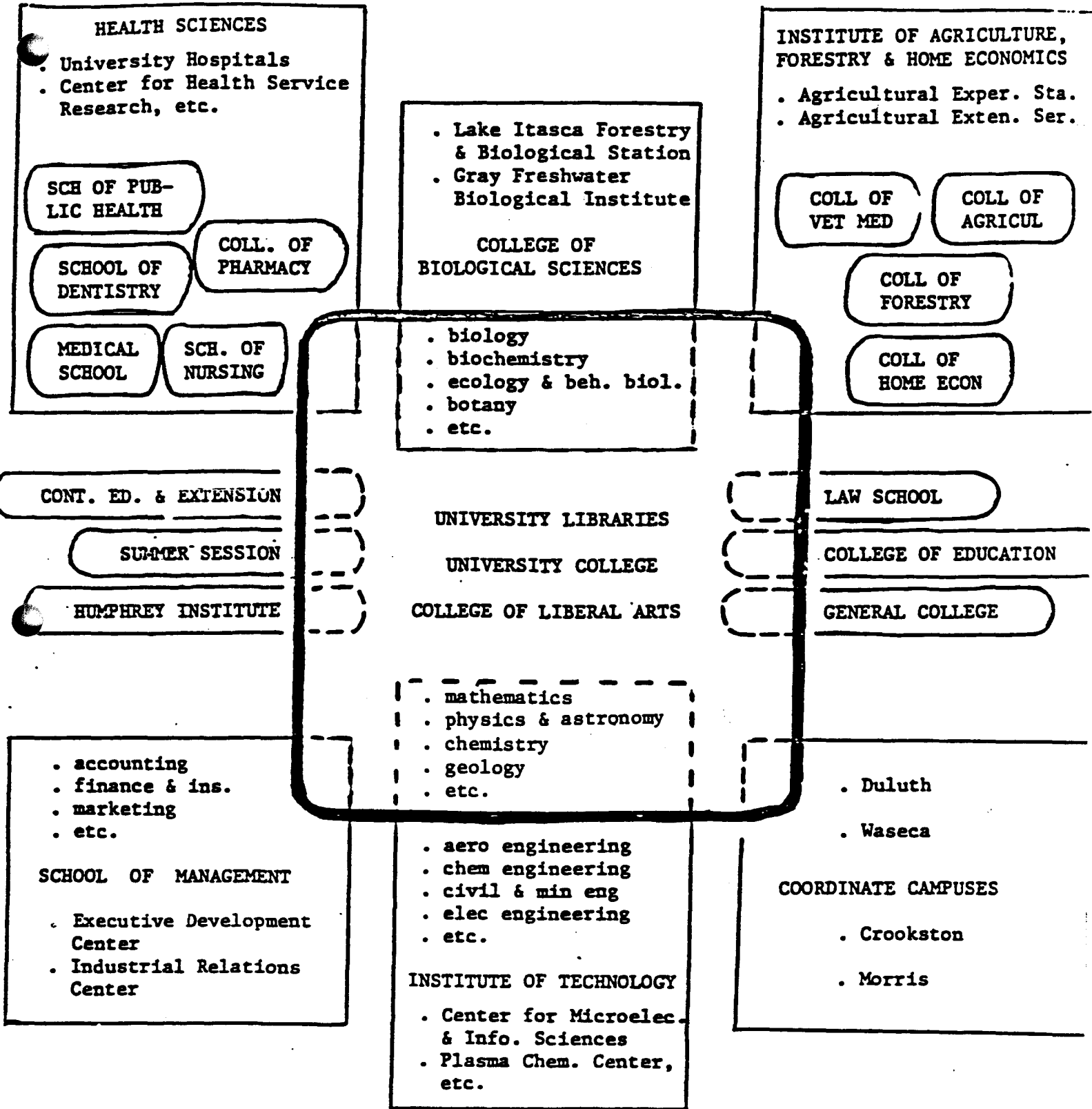


Figure 1.--The Major Teaching and Research Units of the University of Minnesota, 1983; Major Support Services (e.g., University Computer Services, Finance and Operations, Student Affairs, etc.) Are Excluded. Important liberal arts programs, plus extension and summer programs, operate on the Duluth and Morris campuses.

-- PART II DISCUSSES FOUR MAJOR ISSUES AND OFFERS
RECOMMENDATIONS FOR EACH

I. HOW CAN THE QUALITY OF STUDENT
RECRUITING, INSTRUCTION, AND
RESEARCH BE ENHANCED?

- 1. RAISE ACADEMIC QUALITY AND INCREASE
VARIETY OF BACKGROUNDS OF INCOMING STUDENTS
- 2. RECRUIT STUDENTS FROM OUT-OF-STATE
AND ABROAD; INCREASE TUITION WAIVERS
(REGENTS' SCHOLARSHIPS) TO ATTRACT BEST
STUDENTS
- 3. RAISE ADMISSIONS STANDARDS; REDUCE
NUMBER OF REMEDIAL CLASSES AND CHARGE
FULL COST OF REMEDIAL INSTRUCTION

FRANCE'S problem -
Their educ. has been too
elitist; they are trying
to counter it!

- 4. REEMPHASIZE HIGH QUALITY LIBERAL
ARTS EDUCATION FOR UNDERGRADUATES,
BASIC RESEARCH, AND ONE-OF-A-KIND
PROFESSIONAL MASTERS AND DOCTORAL
PROGRAMS

- 5. CREATE CONSORTIA OF HIGHER EDUCATION
FACULTIES THROUGHOUT STATE TO
ELIMINATE NEEDLESS DUPLICATION OF
PROGRAMS AND PROVIDE MECHANISM
FOR SHARING OF TEACHING AND RESEARCH
SKILLS

- 6. EMPHASIZE THE UNIVERSITY'S UNIQUENESS
WITHIN THE STATE'S POST-SECONDARY
SCHOOL SYSTEM

II. HOW CAN THE FACULTY REMAIN VITAL
PROFESSIONALLY WHILE IMPROVING
APPROPRIATE CONNECTIONS WITH
EXTERNAL CONSTITUENCIES?

- 7. PROVIDE GREATER INCENTIVES BY CHANGING
CONSULTING AND COMPENSATION RULES

- 8. ENCOURAGE ENGINEERING AND MANAGEMENT
TO DEVELOP MORE FORMAL SERVICE
ORGANIZATIONS

- 9. DEVELOP A COMPUTER-SEARCHABLE DATA
BASE OF FACULTY INTERESTED IN
WORKING WITH BUSINESSES ON APPLIED
RESEARCH PROBLEMS

- 10. REQUEST ADDITIONAL LEGISLATIVE
SUPPORT TO
 - SUPPORT BASIC RESEARCH
 - MODERNIZE FACILITIES (LABORATORIES)
 - IMPROVE EQUIPMENT (WORD PROCESSORS)

- 11. PROVIDE ADDITIONAL COMPENSATION TO PRINCIPAL INVESTIGATORS SIMILAR TO THAT PROVIDED TO DEANS, DEPARTMENT HEADS, ETC.

- 12. REEXAMINE UNIVERSITY PATENT POLICY; REDEFINE POLICY AND PROCESS; MONITOR FACULTY REACTION OVER NEXT TWO YEARS

- 13. REVIEW PATENT POLICIES WITH GOALS OF:
 - PROTECTING UNIVERSITY'S LONG-TERM INTERESTS
 - PROVIDING PROFESSIONAL AND FINANCIAL INCENTIVES TO FACULTY
 - PROVIDING FAIR AND CONSISTENT TREATMENT OF ALL INTERACTING PARTIES

- 14. EXAMINE STRUCTURE AND OPERATION OF UNIVERSITY PATENT OFFICE TO IMPROVE EFFICIENCY AND EFFECTIVENESS

III. HOW SHOULD ACCESS TO THE UNIVERSITY
FACILITIES AND FACULTY BE MADE EASIER?

- 15. IMPROVE LEGIBILITY OF UNIVERSITY
TO NEWCOMERS AND VISITORS

- 16. HAVE AN OPEN HOUSE FOR BUSINESSES;
USE VIDEOTAPE AND NEWSLETTERS
TO ACQUAINT BUSINESSES WITH
RESEARCH ACTIVITY

- 17. ORGANIZE A PERMANENT "TECHNOLOGY
TRANSFER COUNCIL"

- 18. ESTABLISH CONTINUING FORUM FOR
COMMUNICATION BETWEEN UNIVERSITY
SCIENTISTS AND BUSINESS LEADERS;
EXPERIMENT WITH INCENTIVES TO
FACULTY TO ENCOURAGE ENTREPRENEURIAL
ATMOSPHERE

- 19. PROVIDE LIST OF FACULTY AND STAFF PUBLICATIONS TO GOVERNMENT OFFICES AND LIBRARIES THROUGHOUT THE STATE

- 20. EVALUATE EFFECTIVENESS OF 100 + NEWSLETTERS AND PERIODICALS PUBLISHED BY UNIVERSITY SCHOOLS, COLLEGES, ETC.

- 21. EVALUATE STRUCTURE AND PERFORMANCE OF UNIVERSITY'S "GENERAL INFORMATION" TELEPHONE SERVICE AND LISTINGS

- 22. EVALUATE BENEFITS AND RISKS OF USING OUTSIDE ORGANIZATIONS TO IDENTIFY AND MARKET EXISTING TECHNOLOGIES WITHIN THE UNIVERSITY

-- 23. CREATE AND PUBLICIZE SUCCESS
STORIES BY IDENTIFYING ONE OR TWO
NEW TECHNOLOGIES AND TAKING THEM
THROUGH PROCESS LEADING TO
COMMERCIAL APPLICATION

-- 24. WORK CLOSELY WITH CITY OF MINNEAPOLIS
TO DETERMINE FEASIBILITY AND
DESIRABILITY OF ESTABLISHING A
RESEARCH PARK NEAR CAMPUS

IV. WHAT ARE THE APPROPRIATE ADMINISTRATIVE
STRUCTURE CHANGES CONSISTENT WITH THE
OTHER TASK FORCE RECOMMENDATIONS?

- 25. RECOGNIZE VICE PRESIDENT FOR
ACADEMIC AFFAIRS AS CHIEF
ACADEMIC AND LINE OFFICER
OF THE INSTITUTION AS COMPARED
WITH SUPPORTIVE FUNCTIONS OF OTHER
VICE PRESIDENTS.

THE DEAN OF THE GRADUATE SCHOOL
SHOULD BE DESIGNATED DEAN OF THE
GRADUATE SCHOOL AND ASSOCIATE
VICE PRESIDENT FOR RESEARCH,
REPORTING TO THE VICE PRESIDENT
FOR ACADEMIC AFFAIRS.

- 26. MAINTAIN THE FUNCTIONS OF
LEGISLATIVE RELATIONS IN THE OFFICE
OF THE VICE PRESIDENT FOR
INSTITUTIONAL RELATIONS.

- 27. CONSOLIDATE THE SUPPORT FUNCTIONS OF THE CURRENT OFFICES OF RESEARCH ADMINISTRATION, PATENT ADMINISTRATION, ALUMNI RELATIONS, UNIVERSITY RELATIONS, THE UNIVERSITY OF MINNESOTA FOUNDATION AND GENERAL DEVELOPMENT INTO A VICE PRESIDENTIAL OFFICE THAT SERVES AS STAFF TO THE PRESIDENT.
- 28. STUDY THE PATTERN OF FREQUENT TURNOVER OF DEANS, DIRECTORS, AND DEPARTMENT HEADS TO DETERMINE IF THIS RAPID ROTATION UNDERMINES THE ABILITY OF THE UNITY ADMINISTRATORS TO KNOW WHAT RESEARCH IS UNDER WAY AND TO LINK THE WORK AND THE RESEARCHERS TO USERS OFF-CAMPUS.

UNIVERSITY OF MINNESOTA

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

August 10, 1983

TO: The All-University Senate Consultative Committee
The University Senate Committee on Educational Policy
The Senate Planning Committee
The Senate Finance Committee

Dear Colleagues:

I am transmitting to you the final report of the Task Force on Higher Education and the Economy of the State, an effort that was chaired by now Acting Vice President David Lilly. In varying degrees and ways, I am sure your various committees will want to address the report and its recommendations.

At this point, the report is precisely that: an analysis of how the University relates and is perceived as relating to the economy of our State. This issue, of course, is a major one for a public land-grant university such as ours, and our planning process identifies the enhancement of our service to the economy of Minnesota as a high priority.

I anticipate that this report will be discussed informationally by the Regents at their September meeting, and at some point thereafter I will be making my own comments and recommendations with regard to the points discussed in the report. I would value very much the comments and observations that your Senate Committees may wish to make on the matters covered in the report.

Cordially,



C. Peter Magrath
President

CPM:pln

Enc: Report
cc: University Vice Presidents

The Task Force on Higher Education and the Economy of the State

David M. Lilly, School of Management, Chairman
John S. Adams, College of Liberal Arts, Deputy Chairman
Mahmoud M. Abdel-Monem, College of Pharmacy
Carl R. Adams, School of Management
Stephen Ansolabehere, Undergraduate student
Elizabeth S. Blake, University of Minnesota, Morris
Victor A. Bloomfield, College of Biological Sciences
John E. Brandl, Humphrey Institute
Clarke A. Chambers, College of Liberal Arts
Virginia H. Gray, College of Liberal Arts
Richard J. Goldstein, Institute of Technology
Robert M. Hexter, Institute of Technology
James R. Johnson, Graduate School
M. David Merchant, Secretary
Bernard L. Mirkin, Medical School
Jerrold M. Peterson, University of Minnesota, Duluth
Lauren Pacelli, Graduate student
Anton R. Potami, Director, Office of Research Administration
Kenneth J. Roering, School of Management
G. Edward Schuh, College of Agriculture
Roger W. Staehle, Institute of Technology
Wesley B. Sundquist, College of Agriculture
John E. Turner, College of Liberal Arts

REPORT OF THE TASK FORCE ON HIGHER EDUCATION
AND THE ECONOMY OF THE STATE

INTRODUCTION

Why the Task Force Was Created

On 23 February 1983, University President C. Peter Magrath appointed a "Task Force on Higher Education and the Economy of the State." The task force, chaired by David M. Lilly, was set up to help pursue one of five primary themes of the University's current cycle of institutional planning. Planning began during the 1982-83 school year both to influence adjustments in the 1983-84 budget and to prepare for the development of the 1985-87 legislative request. Additional planning during the 1983-84 school year will support submission of the biennial request in the fall of 1984 with legislative action expected in the spring of 1985. Related themes include:

- quality of graduate education and research, the subject addressed by another task force chaired by Graduate School Dean Robert T. Holt;
- student experience, focused on selected aspects of undergraduate education;
- the international character of the University; and
- the impact of new computation, communication and information technology.

The current cycle of university planning endorses the objective of improving "substantially the University's contribution to the development

of the state's economy, especially in the areas of technology and management."

The University of Minnesota has a long history of attracting enormous financial and human resources into the State, then using them in combination with resources already here in transferring knowledge and skills into the economy. Through their research efforts and outreach programs, the faculties in agriculture, forestry, the physical sciences, the health sciences, engineering, and management have for decades been responding to the economic needs of the state. Taconite processing was a University development which revitalized the Iron Range and is currently responsible for 45 percent of the country's iron ore. More than half the acreage of some of Minnesota's major crops are planted with higher yielding varieties of seed developed on the St. Paul Campus. The evidence is that public investments in agricultural research and extension have yielded rates of return on the order of 30 to 35 percent per annum. Scholars in the Institute of Technology have been instrumental in nucleating 44 new companies in Minnesota, and about two-thirds of the scientists involved in its high technology industries were trained at the University. It was one of the Institute's great scholars who isolated uranium isotope U-235, which laid the groundwork for nuclear fission. The University's achievements in the health sciences include the first use of a heart-lung machine for open-heart surgery, the first successful implantation of an artificial heart valve, the first use of an artificial pancreas in a diabetic patient, kidney transplants, experiments with new drugs, and many others.

But in the face of these achievements, three general trends challenge us.

- First, an extremely rapid rate of change and increasing sophistication of science and technology. This situation implies a need for the University to provide the education and expertise to move with the change, and the necessity that we have the up-to-date faculty and equipment to do so.
- Next, the rapid obsolescence of scientific and technical education, with the consequent need for mechanisms to provide life-long learning.
- Finally, the increasingly rapid translation of basic discoveries into important products and services provides a powerful rationale for efficient technology transfer that will enhance the economy of the state.

The Assignment

The assignment for the task force -- "to make recommendations concerning steps that should be taken to achieve the objective of improving the University's contribution to the economy" -- is basically a mandate to continue and, if possible, to expand this transfer of new knowledge of skills to the outside community, to become more accessible to the state, and to develop the mechanisms needed to achieve these goals. As we approached our assignment, we recognized that we are a land grant university with public missions at a time when nation-wide the public and private

universities are becoming increasingly alike. The fact that we are a public institution means that we shoulder certain responsibilities that private schools can selectively avoid, yet we must compete with them in every way for talent and scarce public resources. The result is a set of conflicts among what we want to do, what we are able to do, and what we ought to do, with hard choices often necessary.

One of the choices is the mix of emphasis between graduate and undergraduate programs. The University of Minnesota has traditionally had a low ratio of graduate students to undergraduates and has often defended its state appropriated budget allocations in terms of low-cost high-volume instructional programs. The time may have arrived, however, to raise the ratio of graduate to undergraduate teaching efforts and to defend augmented research and graduate training budgets as a wise state investment. Our effort has produced 1) a brief examination of the current situation of education in Minnesota and the University of Minnesota within that picture; 2) a look at the current State of Minnesota economy; and 3) a set of recommendations relating the role of the University to the state economy.

HIGHER EDUCATION IN MINNESOTA

It is important to emphasize the distinctive and independent role of the University of Minnesota in the creation of knowledge and in the linking of the state to worldwide networks of scholarship and research. Graduate programs and doctoral research activity form a major element in the creation and flow of new knowledge and in attracting and retaining top-flight academic personnel. New knowledge must be created and shared before

it can be taught and applied to practical problems. Our Task Force report therefore emphasizes these central responsibilities before turning to an examination of how the University can do a more effective job of meeting the needs of economic activity in the state of Minnesota.

The Parts and the Whole

If we think of higher education simply as post-secondary schooling, we can identify five sectors:

- the University of Minnesota
- the State University System
- the community colleges
- the area vocational-technical institutes
- the private two-year and four-year colleges.

Each sector has its own mandate and operates at a different set of locations in the state. The geographical distribution of public and private institutions of higher education across the State of Minnesota seems quite suitable, although the present capacity of certain institutions and certain types of institutions may well be excessive compared to present and future needs. Some of the community colleges and vocational-technical schools may have to be combined to ensure their continued strength.

Meanwhile, certain programs -- such as industrial technology -- are virtually absent and should be developed. This array of institutions can supply the kind of local access for post-secondary schooling and for continuing adult education that a rapidly changing economy and an aging population will need. Each sector of the higher education enterprise in Minnesota emphasizes a different constituency, a different set of missions,

and a different pattern of what it takes from the economy compared to what it returns in exchange.

Within this higher education picture, in both the Twin Cities metropolitan region and in the outstate areas, the mission and role of the University of Minnesota are unique.

The Mission and Role of the University

The University of Minnesota has a distinctive role that sets it apart from the other higher educational units in the state. As the only Ph.D. degree-granting institution, it offers professional training in law, business management, medicine, agriculture, engineering, and the various academic fields represented in the Graduate School. These trained professionals -- including graduate students who assist in the teaching and research parts of the University's mission -- constitute a direct input into the economy and life of Minnesota. In addition, the University plays a distinctive role in the training of undergraduates: it provides them with instruction by a teaching/research faculty in an educational environment that emphasizes disciplined thinking and research.

The mission of almost every unit of the University involves different mixes of emphasis on teaching, research, and service.

- The teaching mission includes basic general education that introduces students to the subject matter and methods of diverse academic disciplines in the social sciences, natural sciences, humanities, and creative arts; liberal education that aims at promoting students' skills in logical analysis

and synthesis, in language (the "natural" languages of English, Spanish, Russian, Hindi, for example, or the "artificial" languages of mathematics, music, and computer science), in effective communication with the spoken and written word, and in the critical task of learning how to learn; and highly specialized job, career, and professional training.

- Research and writing may involve basic scholarly inquiry that adds to what is known, or the elaboration of new modes of inquiry that challenge established ways of perceiving and explaining human behavior, processes of social change, and processes of the natural world; they may take the form of creative expression in the literary and performing arts; they may also be expressed through applied research that uses what is known to solve practical problems that arise in the world. Despite a contrary contention by some, expansion of the University's role in research and technology transfer need not be competitive with its undergraduate teaching mission. And expansion of some areas of applied research need not be competitive with other areas of more basic research. The important perspective to keep in mind is that any teaching or research enterprises undertaken by the University need to be endeavors of the highest quality.
- Though harder to characterize than the teaching and research functions, the service or outreach role of the University includes

teaching and research aimed at non-traditional constituencies. Sometimes the University takes the initiative in offering special courses and training programs designed for non-matriculated, non-degree-seeking students. But it also responds to requests from individuals and groups that such programs and courses be scheduled. Individuals, staff members, and units of the University also perform service to the community by offering advice, consultation, and problem-solving expertise to individuals and organizations off campus. This service to large and small businesses alike represents a substantial contribution to the state's economy.

General Education and
the Liberal Arts Core

In addition to its job-training functions, the University is heavily involved in general education, and its organization reflects these different but complementary missions. At the core of the University is the College of Liberal Arts. The "liberal arts," in the classical sense, were the higher arts which, among the Romans, only freemen (liberi) were permitted to pursue. In the Middle Ages, liberal arts were the seven branches of learning: grammar, logic, rhetoric, arithmetic, geometry, music, and astronomy. In modern times the liberal arts include language and literature, the arts, natural and social sciences, mathematics, philosophy, history, geography, and so forth, which make up the curriculum of academic or collegiate education, as distinguished from technical or professional schooling.

The core departmental units in our College of Liberal Arts are:

Anthropology	German	Scandinavian
Art History	History	Spanish-Portuguese
Classics	Journalism and Mass Communication	Speech-Communication
Communication Disorders	Linguistics/ESL	Sociology
Economics	Music	Statistics
English/Composition	Philosophy	Studio Arts
French and Italian	Political Science	Theater Arts
Geography	Psychology	

Other units that formerly were located in the core college of Science, Literature and Arts (SLA), or could logically be centered in a core college today but currently are housed elsewhere include:

Chemistry	Agricultural and Applied Economics	Genetics and Cell Biology
Computer Science		Microbiology
Physics and Astronomy	Biochemistry	Ecology and Behavioral Biology
Mathematics	Biology	
Geology	Botany	Family Social Science

These three dozen fields and disciplines follow established traditions of critical thinking, basic research and scholarship, and creative works in the arts. They all have well-defined roots in the traditions of the liberal arts. Their scholarly traditions and their educational functions both lead and respond to the technical and professional programs that surround them. Mesmerized as we often are by technology, business, and professionalism on and off-campus, we cannot lose sight of what lies at the

center of our university enterprise and gives coherence to the whole (Figure 1).

Surrounding the core liberal arts programs at the University is a set of institutes, colleges, schools and campuses that provide instruction, translate basic knowledge into useful applications, and carry out basic research, applied research, and service programs. The present decentralized structure of the university grew up after World War II, with considerable autonomy provided to the separate divisions and the units within them. This unit autonomy provides opportunities for innovation and for close direct ties to constituencies off campus.

What we have learned about economic growth is that it often has little to do with investments in physical capital. Instead, the growth of economies is explained in large part by the investments that are made in the quality of the work force. Human capital includes investment in general education and job training, and in the generation and diffusion of new knowledge. Thus, although the State of Minnesota is endowed with rich agricultural land and mineral wealth, its most important resource is its people -- the brain power, and the backgrounds, values, and outlooks that frame and stimulate it. Failure to develop an intelligent person's brain power represents a wasted resource as damaging to the state's economy in the long run as topsoil erosion, the pollution of ground water, or the use of prime cropland for pasture. The state should be concerned both about the really promising students who fail to go on for advanced training beyond their baccalaureate degrees and about other good students who ter-

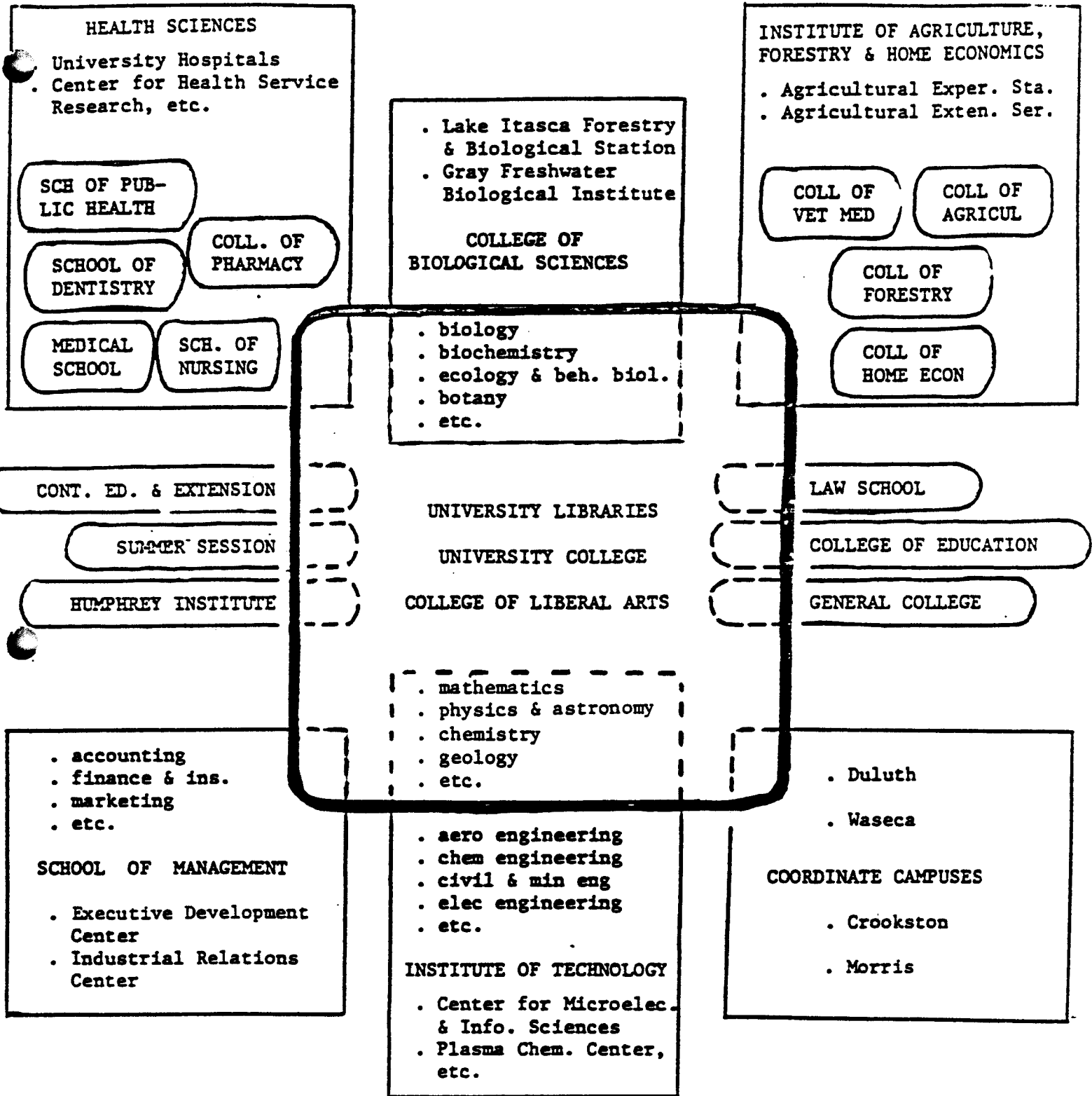


Figure 1.--The Major Teaching and Research Units of the University of Minnesota, 1983; Major Support Services (e.g., University Computer Services, Finance and Operations, Student Affairs, etc.) Are Excluded. Important liberal arts programs, plus extension and summer programs, operate on the Duluth and Morris campuses.

minate their education before they complete their undergraduate work at whatever type of institution.

Since the brain power of its people, whether native or imported, is such an important asset to Minnesota, resources must be invested in the teaching and learning process so that it can be protected and developed. Because of its size and the special nature of its programs at all levels of the educational process, the University assumes the role of training people to high levels of skill and achievement. Without adequate resources, the University cannot perform effectively in this role, and when a decline in quality sets in, it can no longer attract highly qualified people, either as faculty or as students -- a situation that leads to a deterioration of its research function as well. Many university units have achieved the status of national and international eminence. The quality of other units, however, has failed to keep pace with that of the premier universities of the United States.

THE ECONOMY OF THE STATE OF MINNESOTA

When we discuss the nature of the state's economy we should focus on the orderly arrangement and management of Minnesota's affairs with respect to production, distribution and consumption of goods and services. The structure and operation of the state's economy are hard to conceptualize and difficult to see, but positive and negative measures of performance are presented to us vividly and continuously -- the unemployment rate, the labor force participation rate, tax collections, budget deficits, supplies

and prices of products, average wages, costs of new housing, starting salaries of new graduates, and so forth. These measures of performance are different from a description of the economy, but they help us monitor its operation.

The Minnesota economy is not a closed economy unto itself, but an integrated element in a dynamic national and international economy. The rapidly changing national and international economic order must be our focus. Our companies must be able to work profitably and effectively within it. As the products of Minnesota's economy compete for national and international markets, the state's production and marketing technologies must be "world class" in quality. This is true for the more traditional economic sectors such as agriculture and mining as well as for the new advanced technology industries based on electronics engineering and emerging biotechnologies. It is also true for selected service industries, that provide employment for a substantial proportion of new Minnesota workers.

Many of the shocks to the state's economy come from shocks external to Minnesota. We cannot control the political economy of the rest of the nation and the world, but the University can work with the state to know it, understand it, and anticipate its directions.

The internationalization of the state's economy has occurred recently at the same time that the rate of change in the creation, adoption, and diffusion of new ideas and technologies has speeded up. A more internationally-oriented economy and a faster pace in advanced technology-based industries have occurred as emphasis in the state's economy has

moved away from heavy reliance on physical resource-based industries and manufacturing to a greater dependence on service industries of many kinds.

It is the job of the state's economy to produce and distribute the goods and services that people want, to do so efficiently and equitably, and to do so today in a way that sustains the state's capacity to prosper tomorrow.

The Supply Side and the Demand Side

There are two sides to the economic activity that moves goods and services through formal and informal markets: a supply side and a demand side. On the supply side, the University participates in the invention and the spreading of new ideas, new knowledge, and new techniques which can be used in production. Each sector of the economy and each class of company have different problems and different needs -- agriculture, large but low-technology manufacturing and service industries, small low technology businesses, health care, large advanced technology companies, small advanced technology companies just starting up, and so on. Large advanced technology companies have the sophistication and resources to look anywhere in the world for consultants and cooperative research projects. From their point of view, the quality of the University of Minnesota is spotty. These companies would best be served if the University had the best faculty, students, and equipment in as many areas as possible. Small start-up advanced technology companies are likely to want specific services and access to specialized equipment that they cannot afford. A land grant university should provide it. These companies also find it hard to make appropriate contacts within the complex university

system. An efficient inventory of available expertise would be valuable, as would an advanced technology center, an "experiment station" where hands-on help and advice can be provided.

As we have already indicated, the University plays a significant role in developing ideas and techniques and then teaching students to become producers of goods and services, able to earn their own livelihoods. But, quite apart from the experience that students gain in grappling with basic and practical questions that one day they must be able to answer for themselves as producers and consumers, the University introduces people to central questions about the meaning of life and the place of the individual in mass society. Each generation, of course, raises these questions in fresh ways, and the University offers for consideration a wide array of ideas and suggestions, from which a person is free to choose. In other words, the University offers to people an education that helps them to live their lives more fully. The University's broad range of activities in the intellectual and cultural realms helps to enhance the quality of life in the state, and the good reputation of the University helps to attract new people to Minnesota and to retain those who are already here.

At the present time there are pressing issues needing attention. There is tension in the air as participants in the state's economy try to take out for themselves as consumers more than the economy wants to compensate them as producers. The size of the annual economic pie seems to be growing very slowly at best. As a result, one person's piece can get larger mainly at the expense of another's getting smaller. Friendly partners are transformed into mean competitors. This situation departs sharply from the continuing economic growth pattern that persisted from the 1950s

to the late 1970s, and for many persons the prospect of a steady state economy is a foreign or forgotten experience.

Broader Economic Concerns

Economic concerns are magnified and documented by massive deficits in public budgets at the federal and state levels as indexed tax collections fail to rise while non-indexed entitlement programs pay out higher benefits. Meanwhile, many households fall behind in meeting their financial obligations as jobs and pensions and other income streams that once seemed secure are unexpectedly interrupted or threatened.

Unanswered questions persist as to whether the present economic doldrums represent a cyclical recession in economic activity, or are a temporary plateau of vitality and it is downhill from here. There is no shortage of diagnoses from experts, but the plain truth is that no one knows what the future will bring.

Even though the future is unknown, there are several initiatives underway to prepare for it. In its report in early 1983, the National Commission on Excellence in Education sternly recommended that the curriculum of elementary and secondary schools in the U.S. be upgraded in all basic subjects. Too many of our school graduates are incompetent, the Commission suggested. The clear implication of its indictment is that an increasingly illiterate and untrained citizenry will be unable to participate effectively in the economy.

Another noticeable trend in the U.S. and in Minnesota for some years now is the critical challenge to liberal arts education compared with the warm endorsement of practical vocational training. Liberal arts graduates have trouble finding the kinds of positions they think they deserve, while

there seems to be a chronic shortage of programmers to operate a chronic surplus of computers.

In the face of challenges by practical persons addressing short-term issues, the liberal arts colleges are thinking in long term ways. In their view, only the liberal arts curriculum can prepare students for the economy of the future because only the liberal arts can prepare a person to learn later what will be needed later. Skill training prepares people for today's jobs. The liberal arts educate people for opportunities, in the economy and society of the future. At the present time, increasing numbers of citizens' groups, national organizations, school boards, and so on are beginning to advocate this latter view.

THE UNIVERSITY'S CONTRIBUTION TO
THE ECONOMY OF THE STATE

As the University works toward the objective of improving its contribution to the development of the state's economy, especially in the areas of technology and management, the central administration in consultation with the faculty has decided that it will be guided by the following goals:

- to expand further and build upon existing mechanisms for assessing and responding to the needs of the citizens of the state;
- to maintain and develop programs with outstanding records of response to the needs of our constituents;

- to capitalize on opportunities to improve programs that address important societal needs; and
- to enhance the long-term educational and research activities of the University's core programs.

Next steps toward meeting institutional goals and objectives could include: a new strategy for the University contributing to the state's economy in the areas of technology and management; or exploring the feasibility of the University entering into cooperative arrangements with business and industry to promote research and state economic development, and to facilitate the transfer of knowledge and skills; new programmatic emphases in establishing policies and priorities to be used in biennial requests, reallocation of funds, and outside fundraising; or modifying policies or procedures (such as those governing patents, royalties, and consulting) that may hinder the University's contribution to the state's economy in areas such as technology and management.

The task force reviewed the objectives and goals that had been adopted in the current planning cycle, reviewed its charges, solicited comment from department heads and professors from across the University, and met with numerous external constituent groups to elicit their concerns. Appendix 1 summarizes the views of the external groups and Appendix 2 summarizes the views expressed in the survey of department heads. Appendix 3 does the same for the faculty comments and suggestions. Major perceived issues and recommendations formulated by the Task Force follow.

ISSUES AND RECOMMENDATIONS

How Can the Quality of Student
Recruiting, Instruction, and
Research be Enhanced?

1. Raise substantially the academic quality and increase the variety of backgrounds of students admitted to graduate and baccalaureate (B.A. and B.S.) degree programs at the University of Minnesota and place greater emphasis on the recruitment of mature, qualified students.

Comment: Capable, well-trained people take the lead in making the state's economy operate well within the emerging international economic order. This suggests that the "pursuit of excellence" must be much more than a slogan in the University's undergraduate general education offerings and in its specialized graduate technical and professional training programs.

A crucial factor in the University's contribution to Minnesota's economy is the improving of the quality of its graduate programs and the quality of the students who enroll in them. Obviously, well-trained graduate students affect positively the research programs of the institution and the well-being of the organizations that hire them after they complete their education. Moreover, there is a positive relationship between a healthy Graduate School and a high-quality undergraduate program. If the University's best teachers and researchers are not given the opportunity to interact with bright, challenging graduate students, they will look for positions elsewhere -- a situation that will result in a decline in the quality of instruc-

tion at the undergraduate level, as well as in the graduate training programs.

The University of Minnesota must also foster a strong curriculum at the undergraduate level (both lower and upper divisions). Demographic projections indicate that there will be a decline in the undergraduate population during the next decade or so. This prospect presents the University with a challenge: to increase its recruitment effort, especially among mature, academically promising young people who can benefit markedly from training by a faculty that combines teaching and research.

In order to improve the quality of its programs and of its graduates, the University must make better attempts to attract high ability, highly committed students; it should strengthen the orientation program for top students and acquaint them with honors program opportunities during recruitment and again early in their programs on campus; it must lower the financial barriers that currently impede the recruitment of qualified out-of-state and foreign students; it must raise entrance requirements and elevate graduation standards; and it must adopt vigorous policies aimed at the creation of vital instruction programs for the increasingly computerized, science and technology-based economy of the 1990s and beyond.

If the University of Minnesota launches a strong initiative aimed at establishing higher standards in its baccalaureate and specialized, research-oriented graduate programs, the way will be made easier for the State University System to redefine admissions and performance criteria associated with the professional bachelor's and master's

degree programs that they may have a functional and geographical comparative advantage in offering.

2. Intensify recruiting students from out-of-state and from abroad; and increase the number of out-of-state tuition waivers for highly qualified applicants (Regents' Scholarships).

Comment: Among the Big Ten and major private universities, the University of Minnesota student body is one of the most locally based. The relative homogeneity of the student body makes the University less attractive for some of the state's better students. Besides this, local companies that seek a variety of backgrounds among their employees are forced to recruit more heavily out of the state because the University fails to do so. People equipped with appropriate knowledge are the ultimate economic resource, and Minnesota must act decisively and effectively to recruit its share of the national and international talent, much of which may stay in the local economy once it attends school here.

3. Raise admissions standards to University degree programs, rationalize degree requirements, and reduce remedial instruction while charging full cost of remedial instruction.

Comment: 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. Yet there is heavy demand for high quality graduates, who may be among the least expensive to educate. If

the University took the lead in raising admission standards, it may encourage the State University System and the private colleges to do the same -- with significant long-term benefits to the entire state and to its primary and secondary school systems. Publicly announced higher admission standards will encourage elementary and secondary schools to prepare students to meet higher entrance standards. Some students will pay more to attend competitive colleges and universities. Providing them with more will help to justify the higher tuition that they will be paying in the years ahead. A broad array of private and public colleges throughout the state will ensure that students will not be denied access to post-secondary education opportunities. Loans and scholarship funds for good but needy students will have to be increased. The 1983 legislative action augmenting the Higher Education Coordinating Board's loan and grant programs will go a long way toward meeting this goal.

4. Reemphasize high quality liberal arts education (B.A./B.S.) at the undergraduate level, basic research, and Minnesota's one-of-a-kind professional masters and doctoral programs at the University.

Comment: Until the 1960s, the Minneapolis and St. Paul campuses of the University were the only public post-secondary schools in the Twin City area. The University was pressed into the undergraduate professional degree business because there were insufficient alternative options. Many alternatives now exist in the private and public schools. For this reason, we should now reexamine the "needs of the

state" under the land grant mandate, reemphasizing central missions, including the applications of basic research and graduate research programs to the economic needs of the state, and the unique technical training programs that flow from these programs, such as those in agriculture, forestry, and home economics. Internship programs for B.A. and B.S. students can strengthen ties to diverse university constituencies, and can enrich academic programs when the internships are tied to structural learning in the classroom and to close faculty supervision.

5. Explore ways to create consortia of higher education faculties in the state, so that specialties are not duplicated needlessly and so that teaching and research skills at different institutions may be shared.

Comment: The five associated colleges of the Twin Cities (St. Thomas, St. Catherine, Macalester, Hamline, Augsburg) cooperate in staffing and curriculum planning. During times of retrenchment and reallocation, research and teaching programs might be enriched if the University takes the initiative in expanding cooperation with the five colleges and other schools and institutions in the state. Adjunct faculty status might facilitate joint teaching and research activities.

6. Emphasize that the University of Minnesota system is separate from and complementary to the four other post-secondary school systems in Minnesota (State University System, private colleges, community colleges, vocational-technical schools -- public and private).

Comment: Public support for the University and its distinctive mission depends crucially on the public's perception of how it is unique.

It is in the University's long-term interest to sharpen the distinctions between its role and that of other higher education institutions in the state, for example in Ph.D.-level programs and one-of-a-kind professional and graduate programs. In other areas, for example undergraduate liberal arts, the University should take a bold initiative in cooperative efforts at achieving high quality along with diversity and convenient geographical access.

How Can the Faculty Remain Vital
Professionally While Improving
Appropriate Connections with
External Constituencies?

7. Consider possible changes in consulting and compensation rules so that faculty and professional staff will have greater incentive for research and development.

Comment: It is claimed in several parts of the University that the extra work involved in seeking and managing sponsored research leading to commercial applications produces too much extra work for the financial compensation and other benefits involved, considering present teaching and administrative workloads and current compensation levels.

8. Encourage the areas of engineering and management to study and make plans to develop more formal service organizations that address the needs of their constituents and facilitate the instruction and research programs of those units.

Comments: Agriculture and various areas of the health sciences have long established records of working with their constituencies through an organized service operation. In general, these service operations are integrated with instructional and research activities. Management and engineering have needs similar to those in agriculture and health sciences but have not yet organized effective service organizations. Doing so promptly will improve not only technology transfer but research and knowledge development as well.

9. In areas where no clear service mechanism exists, identify faculty and staff who are interested in working with businesses on applied research problems using a one-page resume and key words describing their areas of expertise. This information, in a computer-searchable data base, would provide outside organizations, especially small businesses, with information about interested personnel. Since consulting is an effective form of technology transfer, the University should publicize the framework and activities of private facilitating organizations such as the University Research Consortium.

Comment: One part of the University (i.e., the Agricultural Extension Service) has a mission to work with the private sector, but with severe limitations on the consulting that A.E.S. faculty can do. Meanwhile, elsewhere in the University, many faculty may be willing to consult but do not know how, or do not have the time or inclination to seek or arrange consulting opportunities. This situation is especially prevalent in the units of the University that are isolated, by their

geographical location or by the nature of their fields of study. A partnership with other scholars, working through a professional broker, or a broadened understanding of the meaning of a land grant university -- plus full-time faculty compensation -- could create consulting opportunities (i.e., 11- or 12-month salaries rather than the 9-month salaries received by many professors).

10. Request augmented legislative support for the basic research function of the University, specifically to help scientists bridge the gap between grants, to provide start-up funds for young faculty, to augment library resources, to expand clerical support and research assistance, and to modernize physical facilities (e.g., laboratories) and improve equipment (e.g., word processors).

Comment: We should route overhead reimbursement from sponsored research to build up the research capacity of the University. Legislative support for the University's research functions should be defined and defended as a central mission, with full cost being measured and paid for. Sponsored research should provide resources in addition to legislative support -- not in place of such support.

11. Examine the University policy on faculty compensation that permits salary augmentations (A- or B-base) for administrators (deans, directors, department heads) and for teachers (overload salary for summer and CE and E teaching) but fails to treat principal investigators on research projects in the same way, except by subterfuge (e.g.,

create a center, then pay the principal investigator an augmentation to serve as director of the center).

Comment: People respond to incentives. Different incentives work in different ways for different people. At present, many researchers fail to take on additional and worthwhile tasks because they have no way to gain appropriate extra compensation. Salaries should reflect differences in productivity in every important sense.

12. Reexamine the University patent policy, redefine the policy and the process, and closely monitor faculty reaction to the policy and process over the next two years.

Comment: The present policy on patents for discoveries and inventions by University personnel has worked as satisfactorily as it could within limitations of staff and an absence of guidelines, but needs revision. [A separate task force chaired by Professor and former Graduate School Dean Warren Ibele is studying this question and will report its findings and recommendations soon.]

13. Review patent policies at the University with the goals of protecting the University's long-term interests; of providing University faculty and staff with sufficient financial and professional incentives so that they are encouraged to translate their ideas and inventions into commercially valuable patented properties; and of providing fair and consistent treatment to all interacting parties. Industry has

expressed dissatisfaction with consistency and clarity of policy application.

Comment: Task force members and consultants have stated repeatedly that incentives are insufficient to prompt many researchers to translate their work into commercially valuable methods or products. A public land grant university has a responsibility to ensure that this translation occurs.

14. Examine the structure and operation of the University patent office to improve its efficiency and effectiveness.

Comment: The patent office has been understaffed and technologically obsolete in recent years. It needs staff to manage contracts and patent policy, and to develop liaison with technologies in the colleges that would benefit the state.

How Should Access to the University
Facilities and Faculty be Made Easier?

15. Improve the legibility of the University to newcomers and visitors -- and especially to prospective students, their teachers, and their counselors -- by improving signs, building labels, parking directions, directory listings, posted maps and published maps.

Comment: The Minneapolis Campus of the University of Minnesota is one of the most difficult in the country for a visitor or newcomer to enter and find directions. Regardless of which entrance is used, the clues

and cues are few, and the facade presented is illegible. The manner in which the University presents itself to the public is cold and forbidding. It is a constant source of irritation to University visitors not to be able to find a place to park or to do so in a reasonable length of time. The other campuses of the University vary in their legibility and accessibility.

16. Have an open house at the University for businesses to learn first-hand how the research units work and how they might be used in cooperation with business. Use videotape and newsletters to acquaint businesses with the nature of University research activity, letting the business community respond with ideas about commercial applications.

Comment: Physical presence on campus, in offices, and in laboratories can make it easier for business people to identify commercial possibilities and to make follow-up calls. The University personnel should, in turn, visit the companies to learn first-hand how technology finds commercial application.

There seems to be a tremendous lack of awareness in the business and lay community of what goes on at the University. For example, the Agricultural Extension Service is one of the University's most effective systems for interacting with the private sector. The A.E.S. has a Congressional mandate to work with the private non-farm sector, dealing with problems of natural resources, economic development, and community development. The A.E.S. missions go far beyond the agricul-

tural or farming sector. In the Congressional mandate areas the A.E.S. could serve as an outreach and service base for much of the University.

People simply do not know what happens on campus. Those who do not know harbor indifferent or negative assessments of what happens. Even if they once were students here, there is a tendency among many to take but not to give back. Among those who know what goes on at the University, expectations are definitely high -- perhaps unrealistically high. Many who believe they know what goes on at the University still do not know how to gain access to expertise here. But access is controlled more by the University than by public indifference or hostility. Professors and administrators tend not to be demand responsive. Most University students originate locally and stay in the area as alumni. This pattern serves to raise demands and expectations from the University, but limits the alumni resource base of national support.

17. Organize a permanent "technology transfer council" in association with the office of a vice-president for external relations and use it to sponsor communication and action programs for small companies in Minnesota, linking their needs to University resources, both in the Twin Cities and at outstate locations.

Comment: Large and sophisticated companies use staff scientists to contact University counterparts and develop collaborations. The University should take the lead -- as it now does in its agricultural programs -- in providing the same kind of access for small companies

that otherwise cannot benefit as directly from University research programs and faculty/staff resources.

18. Establish a continuing forum for communication between University scientists and business community leadership. Establish a team of key faculty to take the lead within their units in the University, and engage graduate students to approach faculty about their research and product development ideas. Encourage an entrepreneurial atmosphere among selected faculty by experimenting with various incentives.

Comment: The research faculty, especially in the Institute of Technology, the Health Sciences, the College of Biological Sciences, the School of Management, and the Institute of Agriculture, Forestry and Home Economics are the key resources. Each of them has a different degree of interest in commercial application of their knowledge and research findings. Each of them responds differently to incentives. Some University faculty and administrators believe that there is little of potential commercial value at the University that remains unidentified; a concentrated effort can determine whether this view is valid. Several groups already exist and attempt to perform this function, for example Minnesota Wellspring and the Minnesota High Technology Council. But the present groups tend to be narrowly focused or lacking in solid long-term leadership.

19. Identify all faculty and staff who have published materials on the State of Minnesota or any part thereof during the past ten years.

Publish the list of citations and distribute it to government offices and libraries throughout the state as a source of published information and as an index of experts. Emphasize items that describe Minnesota's changing role in national and international frameworks.

Comment: Attitudes about University indifference to state concerns often are uninformed about what has been done and what is available. Free publications from the Agricultural Extension Service may promote the view that if something is not readily available it may not exist.

20. The Office of University Relations should carry out a comprehensive evaluation of the effectiveness of the 100+ newsletters and periodicals that are published by University institutes, colleges, schools, departments, and programs, in addition to those published centrally.

Comment: It is surprising to hear so much complaint from people outside the University who need information from the University and yet experience difficulty in getting it despite intensive efforts by University units to publicize their activities. The publicity given to the complaints reinforces the idea of the large, cold, impersonal University. But much of the day-to-day activity is carried out by small units, most of which seem eager to be helpful, if they can be identified and contacted.

21. Evaluate the structure and performance of the University's "general information" telephone service (373-2851), and the overall effective-

ness of the University telephone listings, including those at outstate locations.

Comment: Many of the initial inquiries that reach the University come by telephone. When callers know exactly what is available, they ask specific questions and apparently are well served. When they want to learn whether or not certain activities exist, they sometimes have trouble getting satisfaction.

22. Evaluate the benefits and risks associated with University participation in a technology collection and evaluation process, such as those offered by several for-profit and non-profit corporations.

Comment: Outside specialists could assist the University of Minnesota in finding existing technologies within the University, assessing their commercial potential, then developing suitable market strategies to sell them. If successful, the University would receive payment, the outside firm would receive a commission, the community gets the innovation, and the University relationship with the community may be enhanced. Such programs are under way in several large and small universities.

23. Select one or two new technological ideas to foster. Put them through a process leading to commercial application. Create some success stories and publicize them throughout the state.

Comment: Example can be a powerful teacher. There is little in the way of steady news flow that describes how basic research finds its way into commercial channels. It is likely that applications can be speeded up without jeopardizing the basic inquiry and teaching functions, so they should be encouraged.

24. The University should work closely with the City of Minneapolis to determine the feasibility and desirability of establishing a research park near the campus. This park could include facilities for brainstorming and exploratory research and services, as well as longer-term special project activities. In conjunction with the Research Equipment Corporation, access may be provided for joint commercial and University use of special equipment.

Comment: Care should be taken to coordinate any activities with complementary programs currently being undertaken in the private sector.

What Are the Appropriate Administrative Structure Changes Consistent With the Other Task Force Recommendations?

25. Since education and research lie at the heart of the University's mission, the Vice President for Academic Affairs must be recognized as the chief academic and line officer of the institution. In order to ensure that the education and research functions are protected, the academic officer must be recognized as having a line status as compared to the supportive functions of the other vice presidents. The Dean of the Graduate School should be designated Dean of the Graduate School

and Associate Vice President for Research, reporting to the Vice President for Academic Affairs.

Comment: Academic affairs must be protected from short-term pressures that threaten its long-term missions. Basic research missions and core liberal arts missions may sometimes work at cross purposes to the development function. Research administration, the patent office, financial affairs, and physical plant planning should be supportive of agendas at the unit level in academic administration. A clear separation of these items would be achieved by the creation of an Associate Vice President for Research in the Office of Academic Affairs.

26. Maintain the functions of legislative relations in the office of the Vice-President for Institutional Relations.

Comment: Legislative appropriations support the University's core faculty, physical plant, and basic operations.

27. Consolidate the support functions of the current offices of research administration, patent administration, alumni relations, University relations, the University of Minnesota Foundation and general development into a vice presidential office that serves as staff to the president.

Comment: These functions must be planned and carried out in an effective and coordinated way that informs the University community of how

the parts move together toward the future, and work with constituencies outside the University in developing working partnerships with University units and the means to support them. This office should be the information center to handle first contacts with the University.

28. Study the pattern of frequent turnover of deans, directors, and department heads to determine if this rapid rotation undermines the ability of the unit administrators to know what research is under way and to link the work and the researchers to users off-campus.

Comment: Curriculum is usually a unit mission, supported by legislative funds. Research is usually an individualized effort supported by external funds. Administrators who serve for short terms of office are likely to know much about their unit's curriculum and be sympathetic with it, but may know too little about their colleagues' research or sources of research support to promote it outside the unit. We need to understand why the turnover is high.

CONCLUSION

Both the University and the State need to adapt to a new world with respect to high quality post-secondary education, to research, and to the interrelationships of government, business, agriculture, and education.

The outlook for the State of Minnesota economy and for the University is basically positive, but the time for strong initiatives is upon us. We must think anew and act anew.

APPENDIX 1

CONSTITUENT NEED ASSESSMENT

Purpose of the Constituent Need Assessment

This report summarizes the results of the initial phase of a two-part research project designed to obtain a systematic assessment of the needs of the university's constituents, to suggest priorities for each constituent group's major identifiable needs, and to consider the feasibility of potential university actions. The objectives of this exploratory assessment were to:

- increase the Task Force's familiarity with the problem specified in President Magrath's charge;
- formulate the assessment problem for later investigation;
- gather information about the practical problems of carrying out this type of assessment;
- develop a preliminary list of identifiable needs of the university's constituents;
- develop a preliminary priority list of the needs of university constituents.

A variety of approaches were used in this inquiry including literature review, case studies, and individual and group unstructured interviews.

Literature consulted included:

- Report of the Governor's Commission on Agri-Processing
- Report of Governor's Commission on Expediting State Contracts

- Report of Governor's Commission on Developing Minnesota's Medical Technology Industry
- Report of Governor's Commission on Film, Video and Graphic Arts
- Report of Governor's Commission on International Trade
- Report of Governor's Commission on Investment and Banking
- Report of Governor's Commission on Technology and the Expansion of Employment
- Report of Governor's Commission on Tourism
- Report of Governor's Commission on Wood Products
- Report of Governor's Commission on Reform of Government
- The Minnesota Economy: Competitive Performance in Manufacturing, Mining, Construction, Services and Government in the 1970s, No. 3, John S. Adams and Hee-yeon Lee (July 1982).
- The Minnesota Economy: Some Comparisons with Other States and Details on Industrial Performance, No. 2, John S. Adams and Julie M. Lange (September 1981).
- Minnesota Manufacturing: A Comparative Geographic Study of Production, No. 2, Trevor Barnes and James D. Fitzsimmons (June 1982).
- The Minnesota Economy: Where Do Things Stand? What Lies Ahead? John S. Adams (December 1980).
- Minnesota State Revenue Trends and Forecasts: Implications for State Fiscal and Economic Growth Planning in the 1980s, Wilbur Maki (August 1981).
- Jobs in Technology: Minnesota's Critical Resource Needs for the Coming Decade, MHTC Technical Needs Survey (February 1983).
- Wellspring Task Force on Technology and Expansion of Employment, (February 1983).
- A U.S. Perspective on Innovation Policy: What It Will Take to Regain America's Technological Edge, Myron Tribus (October 1982).

More than 150 individuals participated in individual or group interviews during the past three months. These participants were drawn primarily from the following groups:

- Minnesota Legislators
- Department of Energy Planning and Development
- Commission on Medical Technology
- Commission on Banking and Investment
- Minnesota Venture Capitalists
- Minnesota Association of Commerce and Industry
- Minnesota Business Partnership
- School of Management Board of Overseers
- Minnesota High Technology Council
- Minnesota Wellspring
- Trade Associations

Impressions and Concerns

These efforts produced the following list of "Impressions and Concerns" about the University. While many constituents expressed strong favorable impressions about the University, the focus in the ensuing list is on "opportunities for improvement."

1. The University is perceived as being so large, impersonal, complex and internally focused as to make it inaccessible without considerable effort on the part of outsiders to the University.
2. Many constituents were unaware of any significant resources or potential contributions the University might make to the state's economy.

3. Although constituents report consistently favorable experiences with Agriculture, Medicine, I.T. and Management, many constituents report having had less than satisfactory experiences with efforts to development involvement with the University.
4. Constituents reported having found the University unresponsive to efforts to obtain assistance of various types including contract research, consulting and educational programs. The faculty is perceived as being uninterested in disseminating knowledge to some constituencies. University policy may discourage such dissemination or perhaps access to University-based knowledge needs to be revamped.
5. The University is considered particularly difficult to access for emerging and moderately-sized firms that desperately need technical and managerial assistance.
6. The University is considered far more accessible to large organizations that have established effective means of facilitating knowledge transfer between the University faculty and their own scientists. The concerns of these organizations focus more on obtaining an adequate supply of well-educated graduates rather than on facilitating technology transfer.
7. The University could make a significant contribution by clarifying a general understanding of the relationship between business climate, a healthy economy, quality of life and a quality educational system.

8. The focus and priorities of the University are not clear to most constituents. The focus as understood does not appear to reflect adequately the most pressing needs of the state -- agriculture, business, and engineering -- and tomorrow's industries, services, and workforce.
9. Cooperation among major universities in the region with regard to setting educational priorities might enhance the University's impact and reduce the considerable strain on resources.
10. The University is perceived to lag some area firms in several areas of knowledge development.
11. The state would benefit substantially from a more productive policy and effort by the University with regard to the effective use of knowledge developed by the university community. Faculty and students should get at least somewhat more involved with applied research, not of course at the expense of basic research.
12. The University must develop policies and procedures that enable it to capitalize on the many opportunities for support the various constituents make available (e.g., small research grants, assistance in attracting high quality scientists, contract research).
13. The basic missions of the University, (1) to produce well-educated graduates and (2) to effectively develop and disseminate meaningful knowledge, must retain highest priority.

14. The University is perceived as being less successful than it should be in attracting the most talented undergraduates of the state to matriculate at the University.
15. Many Minnesota firms consider the University ineffective at adequately serving the lifelong educational needs of the state, consequently they have elected or are electing to provide this type of education themselves.
16. While there is a strong interest in the activities of I.T. management, law, medicine and agriculture, which have the most readily transferable knowledge to identifiable constituents, there is strong and widespread agreement on the importance of excellence in arts, humanities and sciences.
17. Many constituents believe that the erosion of traditional sources of resources will necessitate a closer cooperation between the University and the business community.
18. There is a widely held belief that the changes expected to have an impact on universities in general will require that procedures be developed to facilitate the exchange of useful information and resources between the business community and the University.
19. University policies regarding contract research, consulting and, in general, faculty involvement in the transfer of knowledge and/or applied research do not adequately encourage such activities.

20. The University should consider adopting an "Agricultural Type Model" in some other academic units, such as Management and Engineering.
21. The University simply must take a strong initiative in the re-education of the Minnesota adult labor force.
22. The University would be much more effective at disseminating knowledge if there were a highly visible and highly influential research coordinating office that could provide a focal point for the desperately needed knowledge developer-knowledge user interaction.
23. Each major unit, as well as the University in general, should regularly, perhaps annually, obtain systematic, thorough and evaluative comments from their relevant constituents.

K. Roering

Appendix 2
SUMMARY OF RESPONSES
SURVEY OF DEANS/DEPARTMENT HEADS

- I. The survey instrument (copy attached) was sent to approximately 120 deans and department heads throughout the University. It included 9 questions related to various aspects of institutional capability related to University support of the economy of the state. The response rate was approximately 60%.
- II. All questions included in the survey were of the open end response type. A subjective summary of the responses follows:
 1. Problems confronting Minnesota's economy - Most respondents claimed lack of expertise in this area but expressed the following opinions in about equal numbers (20-25%): poor national economy especially affecting mining, lumber, and agriculture in the state; a poor business climate in Minnesota; a lack of energy and other resources; and a location disadvantage relative to markets. Another significant response (~10%) was an inadequate trained labor force.
 2. Ways the unit can contribute to the economy of Minnesota - The predominant response was quantity and quality of education of various types (~50%). About 30% indicated research projects and potential technology transfer possibilities. The list of over 100 specific suggestions should be transmitted to the appropriate administrative office for appropriate action.
 3. Current formal and informal delivery systems - The response on formal systems stressed instruction (50%) through Agricultural Extension, Continuing Education and Extension, and regular classes. Publication was also noted (~15%). Among the informal systems about 50% identified consulting (paid and unpaid) as the primary mechanism.
 4. Adequacy of funding for activities related to the State's economic development. The response was almost unanimous that current funding is inadequate (~95%). Areas of support needed included: additional faculty/staff (~35%), additional research funding (~25%), and improved facilities (~20%).
 5. New sources of support - Corporations and private foundations were seen as the dominant sources of new support (~50%). Various cooperative arrangements with industry were noted. About 20% of the respondents suggested that state and federal research support could be increased. Some respondents (~10%) suggested increased fees for services provided.

6. Availability of faculty/staff for outreach activities (including benefits and problems - Nearly all unit heads (~90%) indicated significant availability and interest among faculty and staff. Benefits were seen largely as financial (~50%) with significant benefits in instruction and research as a result of increased contact (~30%). There was very substantial (~60%) concern that the units would be overloaded if the increased outreach activities were not adequately funded.
7. Faculty/staff incentives - Over half the unit heads indicated that monetary incentives would motivate faculty/staff involvement. Some (~20%) saw the opportunity for additional faculty/staff colleagues as significant. Release time was noted by 25% of the respondents as an appropriate incentive.
8. Organizational changes - Relatively few respondents noted specific organizational changes. About 15% indicated that the delivery and contact system could be improved. A significant number (~20%) noted the need for proper incentives being addressed by existing organizations.
9. General comments - Most of the respondents had no additional general comments. About 15% indicated the need for various new connections between the University and industry. Some respondents (~10%) indicated the desirability of the University seeking research grants directed to a few major issues. There was some indication that faculty attitudes will need to be changed (~10%) toward outreach activities.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Management
271 19th Avenue South
Minneapolis, Minnesota 55455
(612) 373-4495

March 30, 1983

TO: Department Heads and Chairpersons

FROM: David M. Lilly, Chairman
Task Force on Higher Education and the Economy of the State

RE: Information Needed

President Magrath has asked me to chair a Task Force to investigate ways that the University can make a larger contribution to the recovery and development of the Minnesota economy. To do this we are undertaking two surveys: (1) one of people in the public and private sectors to obtain their perceptions of how the University can be more helpful to the larger economy, and (2) one of Department Heads and Chairpersons to identify how they believe their units could better contribute to the recovery and development of the economy. These two processes are currently under way.

Attached please find a questionnaire designed to provide information on the University's capability. We have designed it with the idea that it can be completed in a relatively short time. We are interested at this point in preliminary ideas and information. Later there may be a more in-depth followup.

There are a couple of things you might want to keep in mind. First, the idea of "extending" the University so as to better serve the public and private sectors does not imply that every faculty or staff member should be involved in such activities. There is value in specialization, and some people will enjoy such activities while others will not, while others will be effective and some will not be.

Second, technical or technology knowledge is not the only form of knowledge of value to the state. Language skills, knowledge of political and social processes, and cultural knowledge are also of major value.

Third, the time frame for applicability for this survey should be from 3-5 years. A research university such as this one makes contributions in terms of both basic and applied research. We are at least as interested in basic research and knowledge as we are in more applied work. If you can suggest one or two areas in which basic research and knowledge might have a direct benefit to the state, it would be helpful.

Department Heads and Chairpersons

March 30, 1983

Page 2

Finally, we believe it useful to remind ourselves that Minnesota is part of a national and world economy. Knowledge which helps the state compete in these larger contexts is of special value.

We do not want this questionnaire to be a burden on you or to take a great deal of your time. It is a "best efforts" endeavor. If you have difficulty in answering one or more of the questions, give us your best judgment on the remainder.

DML/leh

HIGHER EDUCATION AND THE ECONOMY OF MINNESOTA

A SURVEY OF INSTITUTIONAL CAPABILITY

1. Briefly, what do you see as the major problem(s) confronting Minnesota's economy?

2. Please list 3 to 5 of the most important ways your Department or Unit can contribute to the economy of Minnesota (more if appropriate). We are interested in particular and unique knowledge bases, skills that you provide in your educational programs, and services that you might offer.

a.

b.

c.

d.

e.

3. Does your Department or Unit now have a delivery system by which this knowledge, skills and services are delivered to private and/or public entities in the state? Please list both the formal and informal systems you now use, if any.

a. Formal delivery systems

(1)

(2)

(3)

b. Informal delivery systems

(1)

(2)

(3)

4. Are the activities of direct relevance to the State's economy now funded at adequate levels? Yes____ No____. If not, what aspects of your Department's or Unit's programs need to be strengthened?

a.

b.

c.

5. Assuming a continued tight state budget, how might additional needed resources be financed?

a.

b.

c.

6. Outreach activities are best handled by people who are interested in and capable of doing it.
 - a. Are there among your faculty and staff individuals who would be able and willing to play a greater role in extending the knowledge base of your Department or Unit to the larger economy? Please give some judgment of how many.
 - b. What, if any, benefits would an expanded service role of this type have to your department or unit?
 - c. What burdens or stresses would be imposed on your Department or Unit if some faculty or staff members were to play a greater role in such activities?
7. What incentives would faculty and staff need to play a greater role in such activities?

8. Please suggest what changes you believe are necessary in the organization of the University or of your particular unit if it were to play a greater role in extending its knowledge to the private and public sectors of the economy.

9. Finally, we would appreciate any comments you might have on how the University might better contribute to the development of the Minnesota economy.

10. Name and address of Reporting Unit.

You may want to have this topic as an agenda item for a forthcoming faculty meeting in order to get broad input into it.

A list of the members of the Task Force is attached for your information. We are also attaching a self-mailer to facilitate your response.

We appreciate your cooperation and assistance.

Attachments: 2

Appendix 3
FACULTY/STAFF SURVEY
SUMMARY OF RESPONSES

- I. In response to a general request (copy attached) to all faculty and staff, about 120 individuals submitted their opinions. Five questions included as guidelines covered the areas of University capability to aid the state's economy.
- II. All of the guideline questions were of the open-end variety. A subjective summary of the responses follows.
 1. Present activities of potential payoff in 3-5 years - There is an extensive number of very specific potential contributions. This list should be turned over to the appropriate administrative office for possible future action. Many of the responses dealt with areas of instruction. Common areas of research activities included agriculture, biology, medicine, water quality, and policy analysis.
 2. Adequacy of delivery systems - Most thought that current delivery systems were appropriate but limited. Agricultural Extension, Continuing Education and Extension, regular instruction, publication, and consulting were noted as current mechanisms with various possible improvements.
 3. Support needed to increase effectiveness of outreach activities - Most responses cited the need for monetary increases, many noted the need for a central office to evaluate ideas and serve as a contact and brokering service to the external community. Some responses noted the need for increased clerical support, better computer access and access to special equipment for private use.
 4. Organization Changes - A frequent comment was the need to emphasize outreach as legitimate and important. Some responses called for less bureaucracy.
 5. Other suggestions - Various suggestions occurred in this category. Many responses called for improved public and legislative relations, improved communications and image building with the outside community and specific efforts to publicize University accomplishments. Several comments indicated the need for improving the patent office operations. Several responses objected strenuously to a 3-5 year focus on outreach activities stressing instead a 15-20 year time horizon.

In general terms the results of the faculty letters were quite consistent with the responses to the Dean/Department Head survey.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Department of Philosophy
355 Ford Hall
224 Church Street S.E.
Minneapolis, Minnesota 55455

February 3, 1984

Vice President Kenneth Keller
University of Minnesota
Academic Affairs
213 Morrill Hall

Dear Vice-President Keller,

I am writing to you on behalf of the Senate Committee on Educational Policy. The Committee recently reviewed the Lilly Report (the Report of the Task Force on Higher Education and the Economy of the State) and the Gardner Report (the Report of the Task Force Concerning Support and Development of Academic Skills), and the point of this letter is to share with you the results of those reviews.

Like other Senate committees, SCEP has been struggling this fall with the problem of how to respond to the reports of administrative task forces. Many of these reports speak to matters of educational policy and to matters which, according to the Senate Constitution, are the responsibility of the Senate Committee on Educational Policy. Part of the problem arises because, at the time these task forces were charged, it was not made clear how their recommendations would be brought before the Senate and its committees, what action if any the Senate or its committees would be asked to take on the recommendations or what effect Senate action on task recommendations would have on administrative decisions. From SCEP's struggle with this problem comes the following recommendation. Each charge to a task force should look forward beyond the report of the task force to a plan of action on the recommendations in the report. This plan should be part of the letter that spells out the responsibilities of the task force, and the plan should include a statement of the role of the Senate or its committees in the preparation of the report and the action the Senate or its committees will be asked to take on the report once it is completed. Copies of this letter should be sent to the Senate Consultative and Facilitative Committees.

Before turning to our comments on the Lilly and Gardner Reports, I would like to share one other more general concern with you. It is not very clear to us on SCEP what the connection is between the work of the administrative task forces we have reviewed and the University's recently completed planning cycles. One particularly sharp example of this are the recommendations of the Information Processing and Management

Task Force. These recommendations seem to oppose the plan of the University to eliminate the programs of the Library School. The recommendations of the Lilly Report, to cite another example, seem to oppose the high priority given in the plans of a number of the Colleges to undergraduate education. Perhaps every charge to an administrative task force or Senate Committee should include those portions of any University or Collegiate plan that bears on that charge.

Comments on the Lilly Report

1. The recommendations of this report are based on a number of premises whose truth, at least in the unqualified form in which they appear in the report, is less than obvious. For example, the report states on page 19 that a crucial factor in the University's contribution to the State's economy is improving the quality of its graduate programs. The implication is that employers in the State in increasing number are looking for students with graduate degrees and that graduate degrees have more economic value to the State's employers than do high quality undergraduate degrees. There may be evidence that this is so, but the Lilly Report doesn't present it. The report states on page 21, to cite another example, that local companies would recruit fewer employees from out-of-state if the University were to recruit more out-of-state students. The implication is that being from out of state is for local companies an employment qualification or that there are not enough able children in the State to educate or train for the jobs that these local companies are seeking to fill. There may be evidence that this is so, but the Lilly Report doesn't present it.
2. According to the Report (page 7), expansion of the University's role in research and technology transfer need not be competitive with its undergraduate teaching program. The phrase 'need not' is, of course all important here: In some social and economic circumstances and under some institutional arrangements this expansion might have no harmful effect on the undergraduate teaching program. The question is what the effect of the expansion would be at this University now.

To answer this question, one needs to consider, for example, the ways in which research at present is rewarded and esteemed and undergraduate teaching is not, and to compare the present benefits from a summer or a leave devoted to the improvement of teaching with the benefits from a summer or a leave devoted to research, consulting or some other form of entrepreneurial activity. The University, for example, offers summer research fellowships but offers no comparable salary support for a summer investment in the improvement or development

of teaching. The University offers single quarter leaves for time on research but no paid leaves for time on teaching. Merit pay increases, promotion and professional recognition and respect are much more likely to be won through time on research than through time on undergraduate teaching. Other universities don't attempt to hire us away at higher salaries because of our contributions to undergraduate instruction. This is not to bemoan these facts, it is only to say that any new emphasis on research and consulting has to be evaluated against this background of fact.

3. The conclusions the Lilly Report based on these premises are, in a number of cases, not well supported by the premises. For example, the report recommends that the University should reduce remedial instruction and, at the same time, the report offers the premise that the relative homogeneity of the student body makes the University unattractive to smart kids. However, those students who are most unlike the white upper-middle-class students from Rochester and Edina are the minority students in the General College and the University's foreign students, and these are the students who are most likely to require some remedial instruction. Increased numbers of international students, for example, will increase demand for ESL. The question is the kind of diversity the State's better students are wanting to find. Perhaps they don't want to find minority students with lower reading skills, but then should the University attempt to satisfy desires as these?

The report recommends that the University raise admissions standards to degree programs and comments that it is not obvious that the University of Minnesota has a genuine commitment to excellence, especially in programs that lean most on legislative support. There may be an important sense of excellence of undergraduate programs that is measured by the high school class standing and test scores of the students in the program, but if this is the only important sense of excellence, then the sons and daughters of the vast majority of the citizens of the State are required to suffer programs that, by definition, cannot but fail to be excellent. There is, however, an important sense of excellence that is not tied to the genius of the students who enter a program but to what the program is able to offer the students who enter it. What is important in this case is the difference the program makes in what the students are able to think and do.

The recommendation that the University raise admission standards overlooks the other ways that the University can work to increase the skill level of the students who enter the University. The Gardner

Report suggest one way: to state more clearly and explicitly what skill level or pre-college experiences people who enter the University are expected to have and to make these statements available to students and schools all over the State. Another approach is suggested by the Lilly Report itself: identify certain instruction as remedial at the University level and charge full cost for this instruction. This could be part of a larger strategy for increasing the percentage of students who enter the University with these skills. That is, the University could set a goal of increasing this percentage by a fixed amount every five years for the next fifteen years. To reach these goals, the University would need to help high schools develop and sustain programs that teach students what they are expected to know and to be able to do upon entrance here.

Taken as a whole the recommendations of the Lilly Report would have the University reduce its commitment to undergraduate education. The recommendations would have the University reduce the number of places available to high school graduates from the State. The political and economic effects of this would be significant. Where would the students denied entrance to the University go? Will the State have to establish another baccalaureate institution in the metro area? What will be the cost to the University in public and legislative support for students denied entrance?

4. The report recommends (page 21) that the University rationalize its degree requirements. This seems to speak to one of SCEP's primary concerns, for, since the elimination of the Council on Liberal Education, the All-University baccalaureate degree requirements have become the responsibility of SCEP. However, this recommendation of the Lilly Report is completely unhelpful. To rationalize something is to shape it to some goal. What goal is the Lilly Report asking us to shape our degree requirements towards and how do the present requirements fail us?

Comments on the Gardner Report

1. According to the Gardner Report (p. 10), the University needs to state more explicitly what skills people who enter the University should have. The goal, as we understand it, is to increase the percentage of students entering the University who have these skills. This is an important goal, and the report offers a useful suggestion for meeting it. However, as we suggested in our comments on the Lilly Report, there are many things that the University can do to help the high schools better prepare the students who enter the University. These include increasing the incentives prospective students have for developing a skill in high school rather than at the University. One type of incentive is to raise the entrance require-

Vice President Kenneth Keller
February 3, 1984

- 5

ments. The assumption here is that the higher requirements will increase the number of entering students who have already acquired these skills. This is the approach of the Lilly Report, and it seems to us to be too punitive. It denies entrance to students who had little or no opportunity to acquire these skills in their high schools. A second type of incentive is to require remedial course work of those who cannot document the skills and to set the economic costs of the coursework high. This, we take it, is the idea behind the recommendation of the Gardner Report (page 9) that students who need pre-college work should bear the full cost of the direct instruction with no University subsidy. Since these courses do not carry any degree credit, this might encourage students to acquire the skills in high school, but since, according to the report, the actual cost of this instruction is low (page 7), it might be appropriate to charge students even more than full cost for some remedial instruction. There are, of course, problems here since the students who need the remedial instruction most may be the most economically disadvantaged. These problems could be addressed, however, through adjustments in financial aid.

2. The Gardner Report (page 7) opposes the Lilly Report in recommending that the University not eliminate or reduce remedial coursework and programs. We agree with the Gardner Report on this issue, but, as our previous comments suggest, we believe that the cost of the courses should be adjusted to encourage pre-college students to develop the skills in high school. Towards this goal, it might be appropriate to increase the list of remedial (i.e., no credit) courses to include University coursework that, at present, carries degree credit, e.g. many composition and communication courses.
3. We agree with Dean Buckley (see his letter to William Gardner on the Task Force Recommendations, September 13, 1983) that the Gardner Report does not confront a number of questions that relate to the third part of the charge to the Task Force, viz "recommend, as appropriate, reassignment of functions and organizational changes that would achieve better integration and coordination of these services..." and that the matter of consolidation and reorganization needs to be more thoroughly considered.

The Senate Committee on Educational Policy hopes that its comments on these two task force reports will be part of any administrative discussion of these reports and will be taken into account before the recommendations in these reports are acted on.

Sincerely yours,

Michael Root

Michael Root
Chair, Senate Committee on
Educational Policy

MR/sw

cc: Senate Consultative Committee



UNIVERSITY OF MINNESOTA
TWIN CITIES

School of Management
271 19th Avenue South
Minneapolis, Minnesota 55455
(612) 373-4495

March 29, 1983

TO: All Faculty and Staff
FROM: David M. Lilly, Chairman
RE: Task Force on Higher Education and the Economy of Minnesota

As you may know, President Magrath has appointed a Task Force on Higher Education and the Economy of the State. The objectives of this Task Force are: (1) to identify ways in which the considerable capability of the University can be "extended" to better serve the needs of the state and its economy; (2) to identify and suggest organizational and institutional changes that might be needed to enable the University to better serve the state; and (3) to identify budget implications of any changes suggested.

To meet these objectives the Task Force is conducting two surveys: (1) one of the people in the public and private sectors to obtain their perceptions of how the University can be more helpful to the larger economy, and (2) one of Department Heads and Chairpersons to identify how they believe their units could better contribute to the recovery and development of the economy. These two processes are currently under way.

We wanted you to know about this significant effort to identify ways in which the University can contribute more effectively to the development of the state and its economy. We also solicit any ideas or views you might have on how we can be more effective. We are looking more broadly than technology transfer, and are interested in how any of our knowledge bases or knowledge capabilities can be more effectively mobilized to serve the state and its economy.

We do not envisage that everybody would be involved in such activities. There is value in specialization. Some people are effective in working with the public and private sector, while others are not. Some people have an interest in this sort of thing, while others do not.

If you care to take a few minutes of your time and give us your best thoughts, we would very much appreciate it. A memo or letter to me will do. We are interested in questions such as the following:

All Faculty and Staff
March 29, 1983
Page 2

1. Which of your present activities have a potential payoff to the state's economy in the next 3-5 years?
2. Is there now available a delivery system, either formal or informal, which provides a means of delivering that knowledge or skills to the private and public sectors of the state?
3. What support would you need to be able to be more effective in relating this knowledge and skill base to problems of the state?
4. Do you see need for organizational changes in the University to enable us to be more effective in such an endeavor? If so, what?
5. Any other thoughts or comments you care to make.

A list of members of the Task Force is attached for your information. We are also enclosing an addressed envelope to facilitate your response.

Thanks.

DML/leh

Enclosures: 2

HIGHER EDUCATION AND THE ECONOMY OF THE STATE

INSTITUTIONAL GOALS:

- To develop and maintain sound mechanisms for assessing and responding to the needs of the citizens of the state.
- To maintain programs with outstanding records of response to the needs of our constituents.
- To capitalize on opportunities to improve programs that address important societal needs.

OBJECTIVE: TO IMPROVE SUBSTANTIALLY THE UNIVERSITY'S CONTRIBUTION TO THE DEVELOPMENT OF THE STATE'S ECONOMY, ESPECIALLY IN THE AREAS OF TECHNOLOGY AND MANAGEMENT.

DISCUSSION: By virtue of its mission, quality, size, and location, the University is in a unique position to aid the development of the Minnesota economy through its teaching, research, and service programs. Many segments of the University are involved in such development and transfer of knowledge and skills (for example, agriculture, forestry, physical sciences, health sciences, engineering, and management). These areas of the University have a long-standing reputation for responding to the needs of the Minnesota economy. However, the University could provide more aggressive leadership within the state for a concerted effort to improve the economy of the state, especially through the development and transfer of technology and management skills. This is fully consistent with our long-term view that the University is a wise investment for the citizens of Minnesota.

The research programs of the faculty are in many instances related to economic development. In addition, the University could take other steps to promote the transfer of knowledge and skills. Part of the transfer is instructional both to the general public and to specific clientele. The Agricultural Extension Service is a good example in one area of this role. Another aspect may involve creating an environment that attracts certain development projects into a symbiotic relationship with the University. Still another aspect may be the provision of facilities and services that are necessary to support entrepreneurship.

PROPOSED STEPS:

- 1.) Formulating a strategy for dealing systematically with the question of the University's contribution to the state's economy in the areas of technology and management.

HIGHER EDUCATION AND THE ECONOMY OF THE STATE

-2-

- 2.) Exploring the feasibility of entering into cooperative arrangements with business and industry to further research and economic development and the transfer of knowledge and skills.
- 3.) Giving priority to proposals that address the University's contribution to the state's economy in the areas of technology and management, including biennial requests, reallocation of funds, and outside fund-raising.
- 4.) Amending, or seeking to have amended, policies, rules, and regulations that hinder the University's contribution to the state's economy in the areas of technology and management; formulation of new policies.

OUTCOMES AND TIMING:

<u>Outcomes</u>	<u>Timing</u>
Strategy paper	May 15, 1983
Policy amendments; new policies	Oct. 1, 1983
Cooperative arrangements	June 1, 1983
Selecting targets of opportunity	June 1, 1983



UNIVERSITY OF MINNESOTA

Office of the Vice President
for Administration and Planning
200 Morrill Hall
100 Church Street S.E.
Minneapolis, Minnesota 55455

June 14, 1983

MEMORANDUM

TO: Nils Hasselmo
✓ Carl Adams
Rick Heydinger

FROM: *Ann P*
Ann Pflaum

RE: Governor Perpich's Economic Recovery Commissions

In December of 1982 Governor Perpich appointed ten task forces to study selected issues. Each task force was asked to address three questions related to the economic health and growth of Minnesota:

1. What new initiatives should state government be considering to foster the growth of industry?
2. How best can the government, higher education, and private sectors work together to promote growth of the industry? and
3. Would structure or process changes within industry be helpful?

Enclosed are summations from the following reports:

- o Agri-processing (Ralph Hofstad, chair)
- o Expediting State Contracts (Thomas Kelm, chair)
- o Developing Minnesota's Medical Technology Industry (Mark Dayton, chair)
- o Film, Video and Graphic Arts: Focusing on Minnesota (John Stout, chair)
- o International Trade (Robert Schmidt, chair)
- o Investment and Banking (Carl R. Pohlad, chair)
- o Technology and the Expansion of Employment (William C. Norris, chair)
- o Tourism (Curtis L. Carlson, chair)
- o Wood Products (Harold F. Zigmund, chair)

In addition to a summary of the recommendations of the task forces, I have tried to state very briefly possible effects on the University and to make note of University faculty or staff on the task force.

As you will note, I am missing the report of the Task Force on Reform of Government chaired by Secretary of State Joan Growe. That report will be arriving within the next week.

tla
enclosure

NOTES ON COMMISSIONS APPOINTED BY THE GOVERNOR ON DECEMBER 1982

AGRI-PROCESSING (2/14/83; CHAIRMAN: RALPH HOFSTAD)

Recommendations

1. Recommended the establishment of a Minnesota agri-processing financing authority to encourage agri-processing in Minnesota.
2. The governor should convene and organize a multi-state consortium on agriculture to promote the sale of Upper Midwest farm commodities, study the impact of state and federal legislation on the region, and find new solutions and ideas on marketing, agricultural finance, transportation, education and research.
3. The commission recommends tax incentives on the state to encourage the use of corn in the dry-milling manufacture of ethanol.
4. The governor should work to negotiate changes in GATT to eliminate inequities that vegetable oils contend with in the export market; continue to support the University of Minnesota and other research institutions in working towards higher producing oil seeds.
5. Recommended maintenance of current levels of funding for agricultural research. Specifically appealed for restoration of funds to the 1983-85 budget of the Agricultural Experiment Station as well as full funding for them of the 1983-85 biennial request; and recommended funding to support the University of Minnesota biotechnology center.
6. Recommended the establishment of a governor's agricultural policy advisory commission whose primary responsibility would be to provide for the legislature periodic information on federal policy related to agriculture.
7. Recommended support of more efficient processing and distribution of dairy products.
8. Supported a railroad bonding bill to implement the adoption of Amendment 4 in the Minnesota Constitution and to provide financing for the rehabilitation of railroad service central to the rural communities.

Impact on the University of Minnesota

1. Membership: Bill Hueg, Richard Sauer.
2. Substance: One recommendation related to support for agricultural research referred specifically to the University's Agricultural Experiment Stations and their funding. Also supported the concept of a biotechnology center. Materials related to the University's biennial request for the Experiment Stations were included in the report.

EXPEDITING STATE CONTRACTS (NO DATE; CHAIRMAN: THOMAS KELM)

Introduction

State expenditures for the awarding of the outside contracts exceeds \$1 billion. A high percentage of such expenditures relate to construction projects.

Recommendations

1. The current system for handling the preconstruction phase of contracts did not appear to need a major overhaul.
2. A few minor changes in the preconstruction review and approval process, however, were suggested. These included:
 - a) consolidation of all public hearings into a single hearing;
 - b) consideration of further simplification of the Administrative Procedures Act--possibly controversial cases expediting the approval process to get construction moving;
 - c) consideration of a pooling system for bidding on consultant contracts;
 - d) simplification of the municipal approval for highway projects;
 - e) relieving the Minnesota Department of Transportation of certain outdated formal requirements found in its action plan;
 - f) more aggressive lobbying of the federal highway administration for project approvals;
 - g) renewed efforts to secure interstate transfer funds from the federal government;
 - h) assignment to a designated employee in a state agency or the governor's office the responsibility for expediting government contracts.

Impact on the University of Minnesota

No reference to the University and no apparent direct impact on the University.

DEVELOPING MINNESOTA'S MEDICAL TECHNOLOGY INDUSTRY (2/11/83; CHAIRMAN: MARK DAYTON)

Recommendations

1. The state should set forth clearly a policy that the medical technology industry is welcome and appreciated.
2. A comprehensive statewide inventory of labor skills needed by existing and growing industries must be updated and kept current.
3. The state must insure that adequate resources are provided to maintain quality in education--particularly since enrollments will decline in the 1980s.
4. Minnesota's educational system must reflect the needs of tomorrow's industries, services, and workforce: science, math, and computer sciences courses must be strengthened.
5. The biomedical engineering curricula--particularly at the University of Minnesota and elsewhere--must be strengthened, and a graduate fellowship in biomedical engineering should be funded at the University of Minnesota.
6. The state should initiate an aggressive job training program for the unemployed.
7. The Department of Economic Security should examine the potential benefits of proposals such as the Fraser Matched Funding Plan for employment of the currently unemployed in new jobs developed in the field of medical technology.

8. The state should find a way to encourage legitimate entrepreneurs and to provide public protection from unscrupulous promoters.
9. Depending on revenue implications, Minnesota should consider eliminating state tax on capital gains on investment held for three years in new businesses (vote taken supported 15-3).
10. The state should consider repealing the unitary tax provision (vote taken 8-4).
11. Minnesota should consider enacting tax laws that encourage exporting products produced in Minnesota.
12. An office of technology transfer should be created to facilitate the commercial application of research developments (funding suggested on a 50-50 matching basis).
13. Minnesota should establish an office of medical technology development within the Department of Energy Planning and Development.
14. Minnesota should begin an aggressive program of recruitment and retrenchment of medical technology firms.
15. Minnesota Small Business Finance Agency must continue as an independent state agency.
16. Minnesota should strive to develop international medical product shows.
17. Minnesota should have a health care and health industry week.
18. The Minnesota Small Business set-aside program should be revised and better implemented to help small businesses in the medical field.
19. A strong health care system is important to continue growth in the medical technology industry; a forum should be established dialogue concerning the complex factors which contribute to the cost of supporting the Minnesota health care system (vote taken 12-4).
20. The development of Duluth as a medical center would be greatly enhanced by the expansion of the medical school to four years (vote taken 11-5).
21. The state should inventory and promote existing buildings that can be made available for start-ups and expansion by the medical technology industry in the medical community.

Impact on the University of Minnesota

1. The UMD recommendation would have a critical impact on the University (#20).
2. Support for the fellowships in biomedical engineering would also have a direct impact on the University.
3. University people involved in the task force: Victor Bloomfield (Biological Sciences).

4. The Health Sciences Research Center might be a useful resource if a forum is established to study the Minnesota Health Care System (#19).
5. Recommendations with broad impact on the University:
 - o Inventory of skills (#2);
 - o Resources for education in period of enrollment decline (#3);
 - o Links should be foreged between future societal needs and curricular offerings in math and science (#4).

FILM, VIDEO AND GRAPHIC ARTS: FOCUSING ON MINNESOTA (2/23/83; CHAIRMAN: JOHN STOUT)

Recommendations

1. The charter of the commission should be broader than simply film, video and graphic arts, and it should include radio, sound engineering and recording, as well as telecommunications.
2. Efforts should be made to improve the business climate (e.g., reduction of unemployment compensation rates, creation of incentives for the development of existing and new businesses in Minnesota, development of a strategy for decreasing Minnesota's corporate and personal income tax).
3. Promotion of Minnesota as a major communications center.
4. The creation of a film and video board.
5. Avoiding the imposition of a sales tax on services performed by advertising public relations and other businesses.
6. Eliminating the sales tax on film and video prints sold out of state.
7. Eliminating the use tax on capital equipment.
8. Modifying the best price requirement for state contracts (to allow Minnesota-based companies the opportunity to bid unless the price variation is more than ten percent than that of a non-Minnesota competitor).
9. Monitoring labor-management relations in graphic arts negotiations.
10. Promotion of the interconnection of cable systems and a review of the decision to eliminate the State Cable Board.
11. Encouragement of the development of post-secondary educational opportunities (e.g., film program at Inver Hills Community College, development of programs in the community colleges to train personnel for the film, video and television industry, and encouragement for the communication industry to support media arts education).
12. Increase arts funding (suggests an arts checkoff list).
13. Creation of a venture capital fund for film and video projects.

14. Review commercial lending policies to encourage the small business administration to reevaluate the criteria currently applied to loan requests for service based and arts oriented businesses.
15. Redefine the title and scope of commission to include all elements in the communications industry in Minnesota.
16. Promote regional cooperation.

Impact on the University of Minnesota

There appeared to be no members from the University faculty or staff on the commission; the University was not mentioned in the report. There is interest in a number of areas related to this task force (e.g., cable systems as well as educational programs in film and video and in funding for film and video).

INTERNATIONAL TRADE (2/19/83; CHAIRMAN: ROBERT SCHMIDT)

Trade Expansion Program Recommendations

1. Phase 1 (2/18/83-6/30/83):
 - o create the governor's nucleus office to:
 - plan and flesh out trade development organization;
 - set up a structure for volunteer efforts;
 - investigate what other states are doing and incorporate the most promising elements into the Minnesota effort;
 - find channels and devise methods to use them effectively;
 - formulate concrete steps necessary to put the export program into an operational mode once funds are appropriated;
 - draft and expedite the passage of enabling legislation and secure necessary commitments from the private sector to avoid start-up delays in Phase 2.
 - o lay groundwork for financial and tax stimuli to increase Minnesota's exports:
 - create a Minnesota finance fund;
 - exempt importers from income tax on portions of income derived from export expansion;
 - achieve state conformance with federal export incentive tax laws.
2. Phase 2 (7/1/83-12/31/83):
 - o staff, locate and put into operation the trade development organization.
 - o start up financial programs.
 - o start up volunteer organizations.
 - o contract export trading and manufacturing companies for concrete services.
 - o strip down Minnesota communication centers at shared foreign facilities.

- o test and intense well organized and small new to export business trade commission concept (Mass Sport).
- o create new educational programs in coordinating existing educational activity.
- o create an organization to enhance Minnesota's international image.
- o establish a system of ongoing program review by governor and private sector in order to make necessary adjustments in the export promotion effort.

3. Phase 3 (1/1/84-12/31/86):

- o implement projects with long lead times:
 - World Trade Center;
 - International Business School.
- o evaluate existing programs, make necessary adjustments, expand with particular emphasis on outstate areas.

Additional Recommendations

1. Trade and development organization would combine existing state foreign trade offices into one entity.
2. Governor's nucleus trade office would provide interim leadership in international trade.
3. Minnesota export finance fund would include \$2.5 million from the state, \$10 million from private funds, and would provide short-term financing to help small businesses handle international loans.
4. Tax law changes: exempt income derived from exports over a current level; match federal export incentive laws.
5. Improve communication and publicity.
6. Special projects:
 - o Mass Port type program: screen new to export companies; assist in trade missions.
 - o One-stop export: later expandable to a world trade center.
 - o Free trade zone in Twin Cities.
 - o Use of volunteers from private companies.
 - o Reverse investment to be studied.
 - o International trade school to be studied.

Mid-America International Trading Company (MITCO)

This private consortium proposed to assist the state in its efforts in international trade. In particular, it would assist in the international marketing network, small trading offices (it already has some), and expand its base of service companies involved in international trade, and would help the state study the advantages and disadvantages of reverse investment.

Impact on the University of Minnesota

- o John Turner was a member of the commission and among the appendices was his observation that the University could be useful in providing background information to companies on particular countries where faculty members have knowledge and expertise.
- o In addition, John Turner, when contacted about the commission, indicated that he believed there would be a follow-up study on the issue of the international business school--he said he had heard that there was some thought that Mankato might be the site for such a school.

INVESTMENT AND BANKING (2/16/83; CHAIRMAN: CARL R. POHLAD)

Introduction

The report treats two major financial service industries: the investment industry, including brokerage houses, underwriting establishments, investment banking venture capital and mortgage banking as well as the banking industry, including commercial banks, thrift institutions, and other depository institutions.

Recommendations

1. All state usury laws should be repealed.
2. A follow-up committee will develop an industry position on: branch banking, powers of state-chartered banks, and interstate entry by out-of-state banks.
3. Compensation levels in the securities and banking divisions of the Department of Commerce should be reviewed and upgraded if needed.
4. The Commissioner of Banks should be given statutory authority to charter interim banks that can take over the assets of troubled banks during periods of rehabilitation.
5. There should be a program to reduce or eliminate state laws, regulations, and supervisory actions that duplicate federal requirements or actions.
6. The state should not take any actions that will delay the offering of new financial services in a deregulated environment.
7. State laws should be reviewed and those out of line with industry changes in the offering of new financial services should be repealed.
8. The proposed reorganization of the State Department of Commerce to a structure involving a single commissioner should be dropped.

9. Any laws to provide moratoriums on mortgage foreclosures or other creditor remedies on agricultural and residential real estate should not be enacted.
10. Reasonable efforts should be made to direct the investment of the state administered funds within Minnesota.
11. Appropriations should be granted to provide reserves for the Minnesota Small Business Financing Agency to sell pool tax-exempt industrial revenue bonds in the capital markets and to support funding of capital loans to small businesses.
12. The general climate of the state must be improved. Such improvements would include reducing worker's compensation; opposition to any sales tax on services; reducing or eliminating of the state tax on capital gains; opposing the elimination of the deduction for federal income taxes from state income tax; revising the state tax code to remove ambiguities on revenue collection; encouraging new industry by influencing the merger or transfer of those technologies where state firms have proved to be the leaders; providing state funds for the development of higher education programs for the training and development of critical management skills for emerging high-growth potential companies as well as enhancing curriculum programs in the area of international business and trade; adopting continuing programs in the governor's office to show full support for the development of business opportunities within the state.

TECHNOLOGY AND THE EXPANSION OF EMPLOYMENT (12/21/82; CHAIRMAN: WILLIAM C. NORRIS)

Recommendations

1. Supported partnership in funding the microelectronics and information science center at UM.
2. Supported matching funds for one or more additional science centers, such as biomedics and one in northeast Minnesota.
3. Supported the establishment of a program to facilitate the transfer of University created technology into industry.
4. Urged more support for the start-up and profitable growth of small business.
5. Stressed importance of greater availability of capital for high growth companies.
6. Encouraged identification of growth industries for Minnesota.
7. Emphasized the need to improve viability of small and medium-sized family farms and develop small scale food processing.
8. Mentioned the importance of improved productivity, availability and quality of education and training.
9. Encouraged each institution to develop a five-year plan for improving quality of education, particularly in technology, competitive salaries for teachers, and increased cooperation with other education sectors.

10. Supported improved incentives for increasing cooperation between business, labor, and universities.
11. Supported launching one four-year specialized engineering school.
12. Supported freshmen prep centers at community colleges and AVTIs.
13. Supported two-year college curricula at designated community colleges, state universities, and AVTIs.
14. Supported the establishment of data bases to inventory current and future skills requirements.
15. Suggested a study of the possibility of two additional four-year specialized engineering schools.
16. Encouraged the development of alternative methods for financing education.
17. Suggested ways to bolster the maintenance of employment:
 - a. Develop 1983 interim program to retrain displaced workers for new careers.
 - b. Develop a data base which will provide updated information for displaced workers and list future skill needs.
18. Urged increased enrollments in science and engineering: Program to be developed to foster interest by young people in science and mathematics.
19. Urged consideration of ways to increase the capacity of citizens and local neighborhood development organizations to identify and develop opportunities for job creation and expansion.

Impact on the University of Minnesota

1. University of Minnesota persons on the task force were Regents Roe and Drake, Raymond Prank (UM Board Foundation), and Nils Hasselmo.
2. Direct impact for the University--the engineering school.
3. Direct impact for the University--support for microelectronics and information science center.
4. Direct impact--program to facilitate transfer of University-created technologies.
5. Direct impact--possible support for additional science centers and biomedical research and research in northern Minnesota (minerals, peat, timber, water).
6. Indirect impact from these recommendations will be felt by the University in numerous other ways should they be pursued (e.g., #8-#19, above).

Introduction

The commitment of the governor of a \$12.4 million state investment for promoting Minnesota tourism in the 1984-85 biennium was strongly lauded by the commission chair. The report was divided into task forces on structure, marketing, and public relations/sales promotion.

Recommendations (Structure)

1. Establish a separate office of tourism.
2. Create a comprehensive set of overall goals.
3. Establish a structure whereby coordination of activities, exchange of ideas and future plans can be developed in a coherent fashion through the creation of a tourism commission.

Recommendations (Marketing)

1. The overall advertising of the proposed tourism seemed to be reasonable.
2. Private support should supplement the public funds for advertising and media.

Recommendations (Public Relations/Sales Promotion)

1. Increased and improved public relations programs were suggested to increase tourism. The creation of third party endorsements (for the media) could be highly effective in creating a favorable image for the state.
2. An 800 number and a centralization concept was seen as important in making Minnesota vacations easy to pursue for outstate travel agents.
3. A professional produced film was suggested as an aid to tourism.
4. The aggressive marketing of conventions to Minnesota was sighted as important.
5. Bus charter business should be sought.

Impact on the University of Minnesota

No University faculty or staff were members of the commission. One recommendation did refer to higher education. It was pointed out that the state's higher education facilities will offer much in the area of tourism planning, development, and training. The resources available within these facilities should be considered in the development of our state's long-range plans. Of particular importance may be the assistance of our higher education facilities in identifying potential "tourist bases" for future development as well as training our tourist industry personnel.

The tourism issues will have an impact on the new Hotel Conference Center being planned for the Twin Cities campus.

Notes

Although the formally appointed commission did not have a UM representative, Gary Ballman (Department of Agriculture and Applied Economics) did serve as a member of the structure task force.

WOOD PRODUCTS (1/31/83; CHAIRMAN: HAROLD F. ZIGMUND)

Recommendations

The highest priority should be given to recommendations which would lead to increasing timber production on all state's commercial forest level. Other recommendations were also developed:

1. The state should make a permanent long-term investment commitment to maximize the production of timber on public forest lands. This would be done by a) continuing to fund the state's share in the 1978 BWCA intensified management program, b) restoring the DNR forestry program fund which was cut from the 1982-83 budget, c) funding for improved roads and bridges, and d) funding for reforestation of that part of the recently harvested land which was not replanted.
2. If the state is unable to provide funds to put the above four recommendations into effect, public/private sector cooperation programs should be explored and developed.
3. In order to encourage improved management in private-owned forest lands, tax legislation recommended by the Advisory Committee on Forest Taxation should be enacted and the tree-growth formula should be revised to provide incentives to invest in private forests.

Broad State Policy

1. Public investment in state and county forest lands must be increased significantly and maintained.
2. An effective system of incentives must be developed and maintained to assure high investment levels in and productivity of privately owned forest lands.
3. A strong state commitment to forest products research and development must be accompanied by reinforcement of public and private efforts to find and develop new markets for Minnesota wood products.
4. Management of the forest resource should be conducted in a manner which promotes the use of wood for the highest possible value added contributions to the state's economy or protecting non-timber forest values.
5. Institutional and legal impediments to an improved business climate should be corrected.

Timber Supply (13.6 million acres of commercial forest land)

1. State-owned: 2.7 million acres (19%)
County-owned: 2.3 million acres (17%)

Federally-owned: 2.3 million acres (17%)
Privately-owned (non-industrial owners): 5.6 million acres (41%)
Privately-owned (industrial owners): .772 million acres (6%)

Selections from Specific Recommendations

1. Support forest management practices designed to increase soft wood supply.
2. Support finance herbicides specialist position at the University of Minnesota. Provide funds for the College of Forestry. Implement the forest management act of 1982, including the appropriation of the forest management fund to carry out reforestation and other management activities.
3. Amend the Minnesota tax code to parallel federal capital gains treatment of timber owned by corporations.
4. Recommend changes or alternatives to the tree growth tax formula that would moderate tax increases and encourage intensive soft wood management.
5. Support public and private sector research to develop technology for commercial use of under utilized forest species native to Minnesota.

Impact on the University of Minnesota

Several of the recommendations propose support for the College of Forestry and forestry-related research efforts. Richard Skok was a member of the commission.

tla

REFORM OF GOVERNMENT (CHAIR: JOHN ANDERSON GROWE)

Background

The commission was to study instances where laws, rules, regulations, or administrative practices could be changed and in so doing foster economic growth. Two emphases are 1) relationships with business and 2) relationships to government.

The State's Relationship with Business (Principles)

1. Laws, policies, rules should be reviewed to measure an impact on the state's competitive economic position vis-a-vis other states, regions, countries.
2. Laws, etc. should contribute to a stable predictable environment.
3. Government decision processes should be simplified.
4. Sound long-range planning and management should be pursued.

The State's Relationship with Business (Recommendations)

1. To create an improved competitive position:
 - a. State laws and regulations should conform to federal laws unless there is a good reason not to.
 - b. State should have a mineral resources management plan--balancing economic and environmental perspectives.
2. To ensure a more stable and predictable policy environment:
 - a. Allow public hearings before changes in tax laws.
 - b. Establish a joint House/Senate committee to set broad budget policy early in a session to provide a framework for specific actions.
 - c. Governor and Commissioner of Finance should develop strategies to address the image of a state that doesn't work anymore.
3. To simplify government decisions request each agency to do a systematic self-study.
4. To contribute to improved management:
 - a. Governor should develop long-term economic strategy.
 - b. Agencies explore alternative service delivery.
 - c. Department of Energy should develop a comprehensive capital improvement plan for infrastructure of capital goods (roads, bridges, dams, sewers, water systems) *i.e., info.*

- d. Commissioners of Administration and Finance should prepare reports on user fees and "profit centers."
- e. More informal and expeditious dispute resolution mechanisms should be developed.

The State's Relationship to Local Government (Principles)

1. Local incentives, facilities for business important.
2. Services provided must be linked more closely to revenue sources.

The State's Relationship to Local Government (Recommendations)

1. Local governments must be consulted in the development of a state strategy.
2. Fiscal note process should be expanded to include estimates of potential cost to units of government charged with implementation.
3. There should be a periodic review/reassessment of state mandates with a view to suggesting changes.
4. There should be a careful analyses of state mandates related to local government employees.
5. Department of Finance should study whether counties and townships should be required to pay additional contributions to PERA.
6. Department of Finance, using principles in the report, should study whether there are ways to modify the present system of levy limits on local government.

Impact on the University of Minnesota

This report, more philosophical than the others, exhibits an interest in strategic planning and in sound principles of management. As such it offers some indirect parallels for those interested in University management. Too, the capital goods planning resembles, in some ways, John Adams's concept of a resources and assets balance sheet.

No University faculty or staff were on this task force.