TRANSFORMING THE U
for the 21st Century

Strategic Positioning Report to the Board of Regents

President Robert H. Bruininks
September 2007

UNIVERSITY OF MINNESOTA
Driven to Discover℠

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The University of Minnesota
Founded in the faith that men are ennobled by understanding
Dedicated to the advancement of learning and the search for truth
Devoted to the instruction of youth and the welfare of the state

—Northrop Memorial Auditorium, inscribed 1936

INTRODUCTION

In July 2004, the Board of Regents set the goal of raising the University's profile as a world-class research and land-grant university system. Within weeks, University leadership launched Transforming the U, a systemwide strategic positioning initiative that has provided a comprehensive plan for the future.

Why Strategic Positioning?

We've reached a watershed moment in higher education. Today, the University faces fierce competition, shifting patterns of enrollment, and dwindling resources.

This new century requires new ideas created through discovery and innovation—and a college education that is more than just a major. Without transformative change and strong public support, the University and the state of Minnesota face the prospect of losing our competitive position.

Our aspirations require renewed investment on the part of the state, more successful grant applications to support research and other academic priorities, increased private giving in order to keep tuition affordable, and better leveraging and use of resources. Even with augmented resources, the University will be obligated to make difficult choices about its priorities. To continue to be a world-class university, we must maximize the use all of our assets—human and fiscal.

Reestablishing the Goal

"Right goal; right time."

—Senior Vice President Frank Cerra

The expressed goal of Transforming the U is to become one of the top three public research universities in the world and to achieve an equivalent standard of excellence for our coordinate campuses and other statewide resources.

"Top three" is audacious; its purpose is to urge us all to live up to our proud heritage of achievement and public responsibility. We aspire to stature, not ranking. We seek a deep and abiding cultural commitment to excellence.

In this context, it is not only easier to envision the University of Minnesota's Twin Cities campus as one of the top research universities in the world but also easier to imagine how this vision relates to our campuses and resources statewide.

Foundations for Success

"We are what we repeatedly do; excellence is not an act, but a habit."

—Aristotle

For the University of Minnesota, habits of excellence must focus on our mission of education, research, and public service. The four pillars that support strategic positioning—exceptional students, exceptional faculty

VISION: Improve the Human Condition Through the Advancement of Knowledge

MISSION: Extraordinary Education • Breakthrough Research • Dynamic Public Engagement

GOAL: Become one of the Top Three Public Research Universities in the World

EXCEPTIONAL STUDENTS

Recruit, educate, challenge, and graduate outstanding students who become highly motivated lifelong learners, leaders, and global citizens.

EXCEPTIONAL FACULTY AND STAFF

Recruit, mentor, reward, and retain world-class faculty and staff who are innovative, energetic, and dedicated to the highest standards of excellence.

EXCEPTIONAL ORGANIZATION

Be responsible stewards of resources, focused on service, driven by performance, and known as the best among our peers.

EXCEPTIONAL INNOVATION

Inspire exploration of new ideas and breakthrough discoveries that address the critical problems and needs of the University, state, nation, and world.

MAY 2006

FOUNDATION FOR SUCCESS: Foster Culture of Excellence • Cultivate International Learning
Advance Interdisciplinary Frontiers • Build Diverse Community • Generate Critical Resources • Account for Results

UNIVERSITY OF MINNESOTA

Figure 1: The Four Pillars of Strategic Positioning

and staff, exceptional organization, and exceptional innovation (see Figure 1)—address every aspect of the University's mission and operations and provide a framework for strategic positioning that resonates with the campus community. Together, the four pillars support the weight of our commitment to the state and its citizens.

Those pillars reflect the history and spirit of the University as well as the demands of the new global century. Our priorities are bound together by a set of consistent criteria developed over the past 20 years:

- Centrality to mission
- Quality, productivity, and impact
- Uniqueness and comparative advantage
- Enhancement of academic synergies
- Demand and resources
- Efficiency and effectiveness
- Development and leveraging of resources

These criteria that apply to every decision we make. They assist in setting priorities and directions, ensuring that the recommendations and initiatives emerging from strategic planning achieve the desired results. Our foundational strategies provide an additional means of weighing proposed activities and initiatives. We consistently assess whether a proposed action will help to:

- Foster a culture of excellence
- Cultivate international learning
- Advance interdisciplinary frontiers
- Build a diverse community
- Generate critical resources
- Account for our progress and results

Over the past few years, we have made great progress in each of these areas. This report touches on numerous examples of that progress.

EXCEPTIONAL STUDENTS

Spotlight 1: Investing in Exceptional Students

New Investments FY 2007–08: $20.8 million

Objectives:

- Make the University of Minnesota a destination of choice for students who reflect the diversity of our community and world and are sought after because of their unique talents, skills, and experiences

- Educate and support all of our students to assume positions of leadership in the community, state, nation, and world

- Provide our students with the most advanced, sophisticated, and comprehensive technology tools to enhance their learning experience

- Globalize our students' experience, recruit students from around the world, and provide an education to prepare students to become global citizens and leaders

Example Investments:

- Founders Free Tuition Program

- New two-year temporary scholarship for middle-income students

- Graduate student fellowships

- Academic support and advising

- e-Portfolio/Grad Planner

- Student-centered online learning platform

- Baccalaureate Writing Initiative

- Honors programming systemwide

- Learning Abroad Center

- Center for Allied Health

A key goal of strategic positioning is to "recruit, educate, challenge, and graduate outstanding students." Spotlight 1 presents examples of recent investments to support the University's new objectives in this area. For more than 15 years, the University has made significant changes that underscore a fundamental recommitment to undergraduate education:

- Unified and elevated college preparation standards were announced in the late 1980s and fully implemented in 1991

- Unified liberal education requirements across all colleges were proposed in 1991, were fully implemented in 1994, and are currently under review

- The admissions office and related processes were restructured in 1992

- The "Minnesota Transfer Curriculum" agreement was signed in 1994

- Increased emphasis on undergraduate research and study abroad activities began in the mid-1990s

- Online registration was introduced in 1997

- Major improvements in first-year programming were made throughout the late 1990s, including a comprehensive orientation program, parent orientation program, New Student Convocation, freshman seminars, and living-learning communities in the residence halls

- Major improvements also were made in teaching and learning spaces, equipment, and infrastructure

- More support was provided for advising, including technical resources like the Academic Progress Audit System (APAS); new career development initiatives, including GoldPASS; and better, more coordinated career advising offices

- The Academy of Distinguished Teachers was created in 1999, part of an increased emphasis on the importance of teaching

Table 1: The Undergraduate Experience at the University of Minnesota Twin Cities—1997 and 2007

	1996–97	2006–07	Change
Undergraduate enrollment	23,689	28,645	+20.9%
Freshman class size (fall)	4,279	5,439	+27.1%
Applications for admission (freshman)	13,990	24,663	+76.3%
Percent of entering freshmen who are students of color	16.0%	20.2%	+4.2%
Percent of freshmen in the top 10% of their high school class	28.0%	38.7%	+10.7%
Percent of freshmen in the top 25% of their high school class	60.0%	78.3%	+18.3%
Percent of freshmen living on campus	71.1%	80.6%	+9.5%
Percent of undergraduates who identify themselves as commuter students (SIS)†	46.6%	35.4%	-11.2%
Percent of undergraduates who participated in student organizations or activities (SIS)†	50.0%	73.8%	+23.8%
Percent of students who are not working at a paid job while in school (SES)*	25.6%	25.7%	+0.1%
Percent of students rating the overall quality of academic programs as excellent, very good, or good (SES)*	78.3%	89.0%	+10.7%
Percent of students rating classroom quality as excellent, very good, or good (SES)*	41.8%	82.4%	+40.6%
Percent satisfied (SES)*	82.3%	91.3%	+9.0%
Four-year graduation rate	15.2%	40.7%	+25.5%
Five-year graduation rate**	36.6%	57.9%	+21.3%
Six-year graduation rate**	45.0%	60.8%	+15.8%

† Roger Harrold, "Student Interest Survey, 1971–2006," University of Minnesota, data from 1996 and 2006 surveys.
*Student Experiences Survey, administered odd-numbered years since 1997; data in 2007 column are from 2005 survey.
**Initial graduation rates are for the 1992 entering cohort; see page 10 for new goals.

- One Stop Student Services was developed and deployed at **http://onestop.umn.edu**

- Coffman Union was remodeled and opened in 2003

- Three restructured colleges were created in 2006

- The Veterans Assistance Program was launched in 2006

- The 13-credit minimum registration and tuition band was introduced on the Twin Cities campus in 2002 and expanded to coordinate campuses in 2007

- Private fundraising activities for student scholarships and fellowships grew to historic levels

Throughout the last 15 years, student satisfaction has grown, and graduation and retention rates have climbed steadily (see Table 1). In the last decade, the Twin Cities campus has transformed from a commuter to a residential campus, with capacity for an additional 4,000 residents in the last decade: 1,500 on campus and another 2,500 nearby provided by private developers. The UPASS program instituted in 2000 has issued nearly 20,000 cards to date, providing students with easy and inexpensive access to bus and light rail transportation throughout the metropolitan area. That number continues to rise.

The changes we've made represent a culture shift in the way the University provides service to students. Today, we are entering a new era of attention to improved academic quality and rigor and even better student support services. At the same time, a key element across all strategic positioning efforts is to ensure that we maintain affordable access to the University—and *we are currently engaged in systemwide efforts to ensure not just access, but access to **success***.

Prospective Students

In order to reach our goal of becoming a top-three public research university and to help build Minnesota's

economic future, we must recruit and retain prepared students from a broad diversity of backgrounds (see Spotlight 2). Students who leave the state for their higher education are less likely to return, and the loss of their talent will be felt keenly by the state's economy.

From 2007 through 2013, Minnesota's high-school graduate population is expected to decline, as is the case with neighboring states. As a result, the University must provide strong access to Minnesota students and recruit nationally and internationally to support the state's workforce, economy, and quality of life. This will require the University to employ multiple strategies to improve the academic and diversity profile of its enrolled students.

Strengthening preparation

Preparing every Minnesota elementary and secondary school student to succeed in higher education is in the interest of the University and the entire state. Just as making high school education universal helped to fuel U.S. economic growth during the 20th century, ensuring that every citizen is prepared for postsecondary education and training will be key to keeping Minnesota's workforce competitive in the global creative economy of the 21st century.

Because preparing *all* students for postsecondary success is an entirely new mission for elementary and secondary schools, the University is developing a comprehensive strategy to help them reach that goal. Two organizations are key components of that strategy. The first is generally focused on strengthening educational *practices* across the state, and the second is generally focused on designing and improving educational *policies* that align the K-12 and higher education systems. While both organizations benefit all students in Minnesota, both are also explicitly focused on helping more low-income students, students of color, and students whose first language is not English prepare to earn postsecondary degrees.

Spotlight 2: The Class of 2010

In fall 2006, the University of Minnesota admitted the best prepared freshman class in its history, based on average high-school rank and average ACT composite scores. A full one-third of first-year students were from the top 10 percent of their high-school class. In addition, the class included:

- Two students with perfect SAT scores
- Two with perfect ACT scores
- 239 valedictorians
- 74 National Merit Scholars

The Class of 2010 is also more diverse than its predecessors: students of color represent 15.7 percent of freshmen—up from 14.6 percent just one year ago. On the Twin Cities campus, students of color represent 20.2 percent of the class, compared with 18.5 percent in 2005. The freshman class at University of Minnesota Morris is the most diverse in the University system, with 21.1 percent students of color.

- **The University's Consortium for Postsecondary Academic Success** was created in July 2006 to build and broaden the pipeline to higher education through partnerships with preK-12 schools and districts, institutions of higher education, community organizations, government agencies, and businesses. In its first year of operation, the consortium led the University's successful launch of the new Minnesota Principals Academy, an executive development program that helps school leaders across the state create and sustain high-performing schools that put every student on the path to college success. Another result of the consortium's early work is the Minnesota Postsecondary Plan, which guides junior and senior high school students through a series of milestones that prepare them for the academic, intellectual, and social challenges of higher education.

- **The Minnesota P-16 Partnership** brings together leaders of the state's higher education community (including the state department of education, the University of Minnesota, the Minnesota Private College Council, and the Minnesota State Colleges and Universities system), K-12 organizations and associations, governmental agencies, nonprofits, and business organizations to create a seamless educational system that begins in early childhood and extends to the completion of postsecondary education. Over the next two years, University president Robert H.

Bruininks will serve as chair of the partnership. During that time, a major priority for the partnership will be aligning Minnesota's K-12 standards and assessments with the knowledge and skills that are needed to succeed in college. The partnership will also complete the design and implementation of a single student identification number that will make it possible to accurately track the progress of Minnesota's K-12 students into and through the state's postsecondary institutions. This capability will greatly enhance our ability to design and monitor efforts to prepare all students for postsecondary success.

In addition to the work of these two organizations, the University is expanding its involvement with K-12 schools and students on many other fronts, from working to increase the number of students and staff who serve as mentors and volunteers to providing more—and more diverse—high school students with accelerated learning opportunities through the Postsecondary Student Enrollment Options (PSEO) program and other concurrent enrollment programs such as College-in-the-Schools.

Attracting the best students

While our first commitment must be to educate Minnesotans, we need to recognize that the state faces a decreasing number of high-school graduates and reductions in the state's work force as baby boomers move into retirement. With the decline in the number of Minnesota high-school graduates, we have an opportunity to diversify our student profile without denying access to qualified Minnesota students.

Top students are attracted by the University's unique educational opportunities and scholarships. To continue to attract such students, we will:

- **Increase our numbers of National Merit Scholars** in our freshman classes via newly created sponsored merit scholarships and discipline-specific awards such as the 3M/Alumni Undergraduate Merit Scholarship

- **Establish special opportunities** for the best students in Minnesota and nationally, including expanded pathways for early admission of qualified undergraduates to select graduate or professional programs at the University

The number of National Merit Scholars among first-year students is already on the rise, up from 40 at the beginning of strategic positioning in 2003 to 74 in 2006.

Ensuring affordable access

Many talented and promising students need financial assistance to realize their goals. We want to ensure that all students who come to the University prepared to learn and succeed will be able to afford their college education.

Started in fall 2005, the University of Minnesota Founders Free Tuition Program is a special award program that guarantees grant and gift assistance at least equal to tuition and required fees for all incoming students who are Minnesota residents and eligible for federal Pell grants.*

- When the program is fully implemented in 2008–09, at least **4,200 students will receive more than $20 million in support** from University resources.

- These students will also benefit from **federal Pell grants and Minnesota state grants**.

The University made this commitment to send a clear message to students from low-income families that we are prepared to help. Financial support for students is also the centerpiece of the Promise of Tomorrow Scholarship Drive, the largest scholarship fundraising drive in the University's 155-year history. In the three years since matching scholarship funds became available:

- More than **$170 million has been raised**, and more than **1,200 new scholarships have been created**.

- More than **6,700 students systemwide** are now being helped with scholarships and fellowships funded by private gifts to the University-affiliated

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* According to the Office of Institutional Research and Reporting, most students from families with an income of $50,000 or less will be Pell-eligible, unless they have other assets.

foundations—**up 38 percent** from 4,800 just three years ago.

- In 2007, undergraduate students benefiting from private financial assistance received **average scholarship awards in the amount of $3,656, up more than 50 percent** from 2001.

We continue to make student support a priority. To that end, in fall 2006 we announced an ambitious new goal to more than double the number of students helped through scholarships and fellowships funded through private gifts, from its original total of 4,800 to 10,000. For more information on our fundraising efforts, go to the University of Minnesota Foundation Web site at **http://giving.umn.edu**.

Enrolled Students

In fall 2006, the University announced new ambitious graduation rate goals for undergraduate students systemwide matriculating in 2008 and later:

- **For the Twin Cities and Morris campuses**, the goals are a four-year graduation rate of 60 percent, a five-year rate of 75 percent, and a six-year rate of 80 percent. (The four-year graduation rates for the Twin Cities and Morris campuses in 2006 were 40.7 percent and 44.1 percent, respectively.)

- **For the University of Minnesota Duluth**, the goals are a four-year rate of 40 percent, a five-year rate of 60 percent, and a six-year rate of 65 percent. (The four-year graduation rate for the Duluth campus in 2006 was 25.9 percent.)

- **For the University of Minnesota Crookston**, the goals are a four-year rate of 40 percent, a five-year rate of 50 percent, and a six-year rate of 55 percent. (The four-year graduation rate for the Crookston campus in 2006 was 22.7 percent.)

To achieve these goals, the University will need to provide all of its students with a distinctive educational experience in a challenging and supportive environment.

Supporting the transition

Even the best students sometimes struggle to make the transition from high school to college or from home to campus life, and too often, academically successful students leave the University without completing their degrees. We are now implementing several strategies to foster greater success and timely graduation for all our students.

Our review of student performance indicates that first-semester performance is critical to retention and graduation. Focusing energy and resources to ensure our students get off to a good start, we are implementing two new programs:

- Beginning in 2008, our new **Welcome Week Program** will complement the University's award-winning orientation program. Beginning just prior to Labor Day, the five-day Welcome Week will be required for all freshmen on the Twin Cities campus and will consist of academic support programs, community-building activities for both residential and commuter students, and social events.

- **The Bridge to Academic Excellence** is a new, yearlong transitional program designed to prepare recent high-school graduates for the academic rigors of the University. Students with promise but who need additional support will receive "high-touch" academic support and programming that will give them the opportunity to succeed at the University. The program includes a new Summer Bridge Program that focuses on science, math, writing, and other "gateway courses."

Academically fragile students are often at risk not because they lack ability, but because they are underprepared, lacking specific skills and the social and cultural experiences needed to succeed within the higher education community. Programs like these are designed to meet students' academic needs while providing the University with a means of making early contact with such students, tracking their progress and helping along the way.

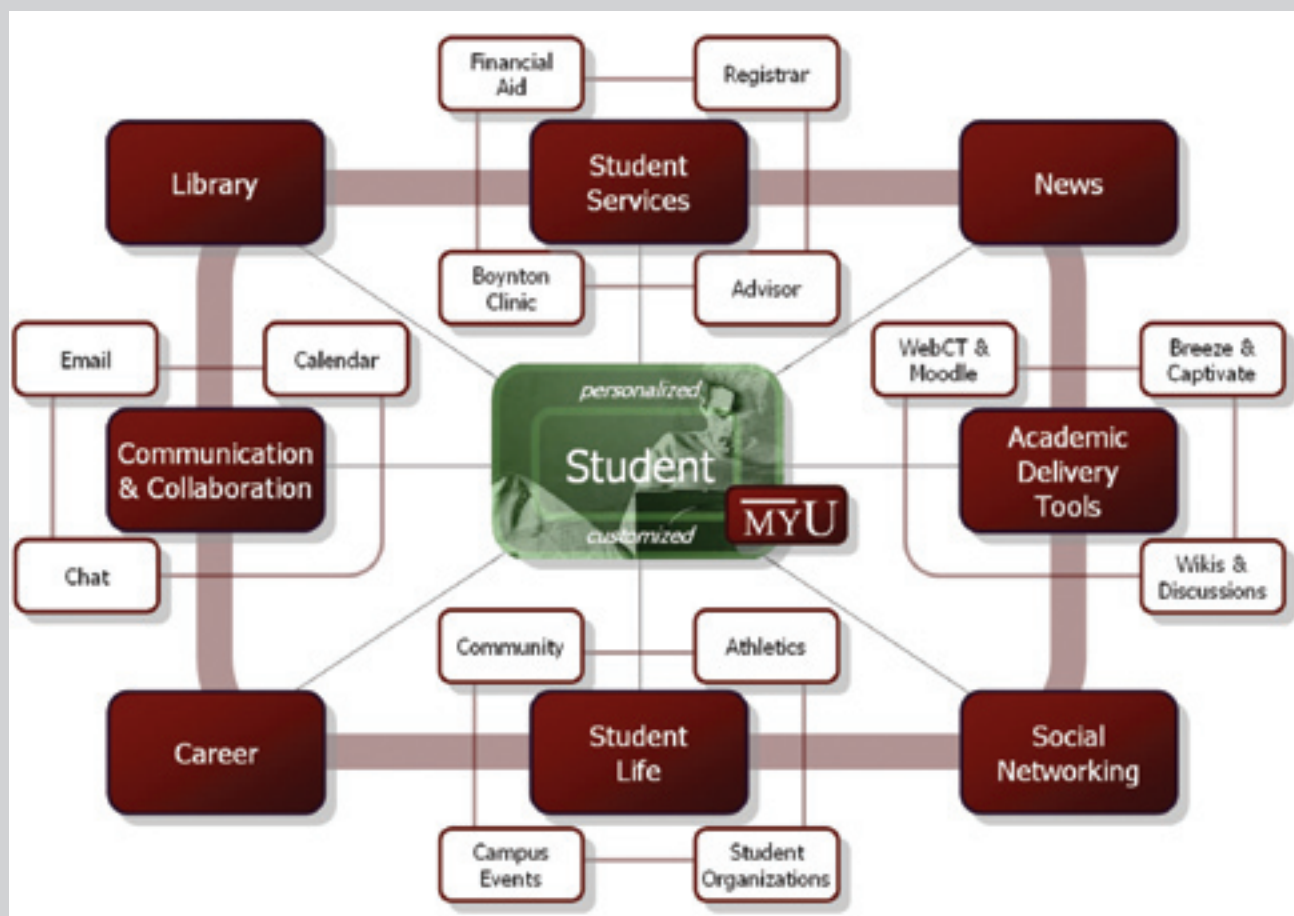# Spotlight 3: The New Learning Platform and MyU

Figure 2: Student-Centered Learning Platform

As part of a University-wide transition to student-centered learning, a robust new Web-accessible learning platform is in development. This platform is personalized (based on affinity) and customizable (based on user preferences and settings) and combines new and existing educational resources, media-rich course content, secure collaborative and social spaces, and student services in a seamless, efficient, and enjoyable environment.

From any computer connected to the Internet, students can:

- Register for classes
- Access course materials and learning technologies
- Contact advisers
- Communicate with faculty
- Access grades and student accounts
- Learn about potential careers
- Catch up on the latest news
- Find journal articles in the library
- Chat with classmates
- Stay up-to-date with campus events
- And much more

At the center of the platform is the student, who accesses all of these features and services via the MyU portal using a single sign-on. MyU is available to all students, faculty, and staff on all campuses at **http://MyU.umn.edu**.

According to Billie Wahlstrom, vice provost for distributed education and instructional technology, the portal enables a virtual orientation, with incoming students preparing for classes, organizing volleyball teams, coordinating rides, and more before they even arrive on campus.

"Our goal is to make it easy for students be successful," she says. "We provide them with e-mail, the portal and their online portfolio for life—they can be in the coffee shop or Kuala Lumpur and stay connected to people and the University."

Academic advising, technology, and support

Good academic advising may be the most underrated aspect of a successful college experience. To respond to this urgent need, we are developing a "public health model" of intervention: rather than waiting for students with problems to come forward, we will reach out to identify them and help them before their issues become grave. We will develop targeted interventions in specific instances where students are at high risk of dropping out or where there is a high rate of failure.

Beyond these targeted efforts, the University continues to invest in technologies that will support better student planning, engagement, and timely graduation (see Spotlight 3). Key efforts include the University-wide Graduation Planner, the improved MyU student portal at **http://MyU.umn.edu**, and a student engagement planner (currently in development).

We also are investing in services that will help students succeed while in school, such as the SMART Learning Commons at **http://smart.umn.edu**, which provides a variety of learning support services, including personalized peer learning consultants and one-on-one assistance. Our commitment to excellence in student support services also includes coordinating and expanding career services, providing students with expert assistance regarding majors and possible careers.

Finally, we will leverage the new and revitalized Department of Postsecondary Teaching and Learning in the College of Education and Human Development to the benefit of our students. The department is attuned to students from culturally diverse backgrounds and those who have been traditionally underrepresented and underserved. As part of the new First Year Experience, students will engage in learning communities that purposefully restructure the curriculum, linking courses and assignments together to promote greater coherence and intellectual engagement (see Spotlight 4). Research has shown that learning communities help students become more involved in their learning, leading to improved performance.

Spotlight 4: Learning Communities

Learning communities do not add courses or requirements but instead take strategic advantage of existing courses. They involve a deliberate packaging of existing courses to enable students to fulfill liberal education and graduation requirements in a more efficient and purposeful way.

There are three primary models for learning communities in higher education, and all models emphasize the importance of creating student cohorts. The College of Education and Human Development will utilize two of those models:

- Team-taught, multidisciplinary courses

- Two or more individual courses linked around a common theme or pressing question, with integrative assignments that explicitly engage students in connecting their learning across courses

Given the swift changes in today's society (scientific and technical innovations, cultural and demographic shifts), students need not only to learn a wide range of knowledge and skills, but also to cultivate the ability to do integrative, connective thinking and complex problem solving. Learning communities provide a curricular structure for facilitating these crucial learning objectives.

The curriculum highlights opportunities for "connected learning" across and within disciplines and will advance the University's priorities of interdisciplinary teaching, synergies between advising and academics, leadership in civic engagement, student satisfaction, diversity, and improved graduation rates. They will also help to create a more intimate learning environment within a large university.

Distinctive experience

"As the state's premier land-grant and research institution, the University of Minnesota is expected to deliver a collegiate experience that is comprehensive and compelling."

—Provost E. Thomas Sullivan*

Talented and prepared students deserve and demand a distinctive education. We must graduate students with breadth of experience *and* depth of expertise; consequently, a world-class liberal education is just as important as strong disciplinary work. Strategic positioning has identified a focused set of initiatives that strengthen the University's ability to offer a distinctive education that increases success and equips students for their place in a complex global society:

- **Outstanding instruction in writing** is one critical component of a distinctive undergraduate education (see Spotlight 5). Beginning in fall 2007, the new Department of Writing Studies in the College of Liberal Arts (which combined three departments on the Twin Cities campus) will provide intellectual leadership in research and teaching of writing by bringing together faculty, staff, and graduate students from across the University who share a common passion for and scholarly interest in writing, rhetoric, and composition. This new department will:

  - Offer a comprehensive, integrated first-year writing program to begin in fall 2007

  - House an expanded center for writing

  - Provide leadership in the transformation of the University's existing writing-intensive requirement into a pioneering Writing Enriched Curriculum program

Spotlight 5: Strong Support for Writing

In March 2007, the University learned that the innovative Writing Enriched Curriculum program was awarded a Bush Foundation grant of nearly $1 million over three years to launch the first phase of the program, an important element in the University's strategic positioning plan. This multiphase program—a component of the Baccalaureate Writing Initiative—seeks to improve the quality of student writing and writing instruction on the Twin Cities campus by engaging numerous departments.

"Other programs around the country have identified discipline-specific writing expectations," says Pamela Flash, the University's Writing Across the Curriculum director and Writing Enriched Curriculum project leader. "Our program is pioneering in its holistic approach. We are interested in both triggering and sustaining pedagogic change. We are truly grateful for the Bush Foundation's vote of support."

When fully implemented, the program will ensure that students in at least 20 academic units will follow first-year writing courses with well sequenced and effectively taught writing-enriched courses in their major fields of study. Success depends on the University's ability to link faculty who specialize in writing instruction and research with faculty in other fields who are revising curricula.

"The ultimate beneficiaries of this project will be students, who will receive writing instruction, experience, and feedback throughout their undergraduate years, and employers who need employees with sound writing abilities," says Vice Provost and Dean of Undergraduate Education Craig Swan.

The latter program will ensure that all undergraduate students follow programs of study that intentionally sequence and effectively incorporate writing instruction across academic disciplines.

Table 2: Teaching, Learning, and Student Satisfaction

	1989	2002	2003	2004	2005	2006
1. In general, how satisfied are you now with your experiences at the University of Minnesota?	69.3%	77.5%	79.9%	81.0%	82.8%	81.9%
2. If you could start your undergraduate work over again, would you attend the University of Minnesota?	58.5%	70.0%	72.4%	74.3%	76.4%	77.3%
3. Now think about your program or major. How would your rate your program/major courses and the instructors on:						
a) Overall quality of instruction	43.7%	55.8%	60.6%	67.8%	68.0%	69.3%
b) The extent to which the courses appropriately challenged your abilities	55.2%	60.0%	57.3%	69.9%	66.9%	70.9%
c) The extent to which your major requirements formed a well-integrated program	40.7%	47.4%	49.2%	58.5%	52.7%	61.1%

Note: The percent giving the two most positive responses (out of five) is noted for each question.

- **A campuswide University Honors Program** will integrate the current collegiate-based honors programs on the Twin Cites campus into an exciting, unified program that will welcome its first students in fall 2008. Professor Serge Rudaz from the School of Physics and Astronomy has been named founding director of the program. One-on-one faculty interactions will be a hallmark for the University Honors Program, which will be designed to attract the very best students and diversify the honors opportunities for all Twin Cities undergraduates. This initiative will help the University recruit a larger and more diverse pool of accomplished and talented students from across the state and throughout the world.

- **The Undergraduate Research Opportunities Program** (UROP) will also be expanded in recognition of the enriching role research can play in undergraduate education. Experience shows that such intimate exposure to the research enterprise ignites curiosity and passion, hones important analytical and communication skills, improves retention and graduation rates, and encourages more undergraduates to pursue graduate or professional education. Expansion of undergraduate research opportunities is a key element in a broader strategy to ensure that all undergraduates will have a mentored scholarly, creative, professional, or research experience. As the director of undergraduate research, physics professor Marvin Marshak will be leading efforts to raise undergraduate participation in University research from 30 percent to 50 percent. For more information, go to **http://www.research.umn.edu/undergraduate**.

- **Freshman seminars** are another key to success for undergraduate students in their educational careers. Students who enroll in freshman seminars have higher second-year retention rates and higher graduation rates. The University will expand its freshman seminar program so that more first-year students will be able to enroll in one of these courses. Currently 40 percent of freshmen enroll in such courses; our goal is percent to substantially increase that percentage.

Enhancing teaching and learning

The University is deeply committed to supporting and improving teaching and learning, which are fundamental to its mission. While trends in student satisfaction in the classroom show improvement over the past 15 to 20 years (see Table 2), we still have work to do.

On the Twin Cities campus, the University's Center for Teaching and Learning (CTL) is a key component in our ongoing support of teaching. According to its mission statement, CTL "enriches the professional growth of faculty, teaching assistants, and instructional staff through programs, services, and resources that promote significant learning experiences for students."

CTL does this with a variety of programs that address teaching at all stages of faculty careers, from graduate teaching assistants to senior faculty:

- CTL's flexible programming accommodates all faculty schedules. It offers short, weeklong, semester, or yearlong courses.

- In addition to workshops and seminars, CTL offers observation of teaching, review of materials, student focus groups, private coaching, and consultation.

- The CTL Web site at **http://www.umn.edu/ohr /teachlearn** provides an extensive toolkit that faculty can access and use in teaching.

- CTL has programs that assist faculty in adapting to learning style differences and cultural diversity among students.

Student outcomes

Timely graduation is not enough—the University must ensure that graduates enter the world prepared to take their place as lifelong learners and global citizens. To achieve this, in 2007 the University built on the work of the Council on Enhancing Student Learning and the Office of Student Affairs to articulate and adopt student learning and student development outcomes:

- **Student learning outcomes** help faculty to develop curricula, plan individual courses, design syllabi, construct learning activities, and assess the learning that occurs in every aspect of the student experience: classes, service-learning and research opportunities, internships, and learning abroad. The Council on Enhancing Student Learning has adopted seven undergraduate learning outcomes, recently endorsed by the University Senate. In accordance with these outcomes, at the time of receiving a bachelor's degree, students:

  – Can identify, define, and solve problems

  – Can locate and evaluate information critically

  – Have mastered a body of knowledge and a mode of inquiry

  – Understand diverse philosophies and cultures within and across societies

  – Can communicate effectively

  – Understand the role of creativity, innovation, discovery, and expression across disciplines

  – Have acquired skills for effective citizenship and lifelong learning

- **Student development outcomes** will help to ensure a set of skills that will enable students to function as citizens of the University while students and as citizens of the broader community as graduates. As part of the dialogue at the Council for Enhancing Student Learning, additional staff and faculty worked on this set of outcomes, which were also endorsed by the University Senate. Upon earning a bachelor's degree, students will demonstrate:

  – Responsibility/accountability

  – Independence/interdependence

  – Goal orientation

  – Self-awareness

  – Resilience

  – Appreciation of differences

  – Tolerance of ambiguity

  These outcomes reinforce the principle that learning takes place throughout the student's University experience and can be assessed in the context of student employment, undergraduate research experiences, service-learning opportunities, internships, and learning abroad, as well as a variety of curricular and cocurricular activities.

Taken together, the student learning and success outcomes underscore the important partnership of students, faculty, and staff in supporting learning in the broadest sense. In addition, introducing them as University-wide goals and important aspects of faculty, staff, and student culture is a unique feature of our efforts

in this area. This combined set of outcomes positions the University as a leader among higher education institutions.

Graduate and Professional Students

Graduate and professional education is critical for any successful research university. In fall 2006, the University of Minnesota had more than 18,600 graduate and first professional students systemwide, making up 28.3 percent of total student enrollment. To achieve its goal of being one of the top three public research universities in the world, the University must designate graduate and professional education as one of its chief priorities. We must recruit the most promising and talented students, offer them an outstanding education, and ensure that they graduate prepared to succeed.

Strengthening graduate and professional education

We must continue to ensure that we provide our graduate and professional students with an outstanding education. To do this, we must:

- **Strengthen and expand student academic support services** throughout the graduate experience, including superior academic advising and mentoring. Student support is a key component of a successful graduate or professional student experience. It is imperative to student success that advisers are well trained and abreast of opportunities at the University. Student support services will be strengthened in part with the creation of a One Stop portal for graduate students. Additional academic support will occur through reinforcing the relationship between the central Graduate School, leaders of the Graduate School, and academic units (directors of graduate study, or DGSs, and their assistants) in order to provide superior advising and mentoring throughout the graduate student experience. The Graduate School will continue training DGSs and assistants, addressing best practices in graduate education, mentoring of graduate students, and other topics of shared interest.

- **Expand academic reviews of graduate programs** through the Graduate School's well established process of academic program review, bringing outside experts in for periodic review of the quality of graduate programs. This process has resulted in the reduction and consolidation of a number of programs in recent years—and as a result, increased support for areas of strength and opportunity. The University also participates in the National Research Council's assessment of doctoral programs, which is critical to measuring the quality of its programs from a national perspective. In the year ahead, the Graduate School will identify metrics and measures of graduate school education.

- **Facilitate interdisciplinary research, education, and training**. Breakthroughs in knowledge increasingly require the ability to address problems that cannot be solved by a single discipline. It is incumbent on the University, therefore, to engage graduate students in interdisciplinary inquiry and help them develop the capacity to work effectively on collaborative teams.

The Graduate School will establish an Office of Interdisciplinary Initiatives to advance this work during the coming year. Its agenda includes:

– Organizing an invitational conference for peer institutions focused on fostering interdisciplinary inquiry

– Seeding interdisciplinary graduate education initiatives

– Supporting training grants that promote innovative programs of graduate education

– Establishing the University as a national leader in advancing policies and practices that facilitate and promote interdisciplinary inquiry

- **Reform doctoral education**. Reform of doctoral education is critical to our goal of excellence and competitiveness. The Graduate School is leading an initiative relating to degree completion and innovation in curricula, pedagogy, and benchmarks of graduate student progress. Spring semester 2006 marked the first steps in gathering data for the Ph.D. Completion Project, an in-depth study of doctoral education started by the Council of Graduate Schools (CGS). The national Ph.D. Completion Project aims to produce comprehensive data on attrition from doctoral study and completion of Ph.D. programs and to develop best practices.

Additionally, doctoral programs in history and neuroscience recently participated in a multi-year examination of doctoral education through the Carnegie Initiative on the Doctorate (CID). The CID engaged with these departments to help restructure their doctoral programs to more effectively prepare graduates for research and employment. In the coming year, the dissertation phase will be a key focus of reform. The goal of the Graduate School will be to ensure that dissertation writers enjoy enhanced intellectual support from peers via dissertation support groups and from advisers as they write their dissertations.

- **Support professional development**. The Graduate School will offer professional development workshops for graduate students and postdoctoral fellows that enhance their preparation for careers in academe, industry, and other areas. Currently, the Graduate School is developing a survey of graduate alumni that will provide information on their career outcomes. This study will assist the Graduate School in expanding career advising and placement assistance at the individual graduate program level.

- **Provide financial support**. Investment in graduate student financial support also is required. Over the past two years, the University increased support to the Graduate School by $5 million to provide enhanced funding for block grants and fellowships to support students, another $4 million to the College of Biological Sciences and the Medical School, and additional support to the College of Food, Agricultural and Natural Resource Sciences. The University will continue to enhance block grants and fellowships in fields of excellence and those with demonstrated potential for excellence. In addition, the Graduate School is hiring a development officer to raise private funds to support Graduate Fellowships in conjunction with academic units and to support interdisciplinary initiatives.

Educating health professional students

The University graduates two thirds of Minnesota's health professional workforce. This is an essential leadership responsibility of the University in supporting Minnesota's future. As the Academic Health Center (AHC) looks to the future, it sees education of new health professionals as its mark of distinction.

In the future, the AHC will be recognized for interprofessional education and care delivery, as well as for using contemporary educational models that are learner-centered and technology-rich, within an environment of learning and continuous improvement, and in facilities supportive of continuous learning. The AHC will educate students to be patient-centered, evidence- and best-practice-based, team-trained, systems-oriented, civically engaged, and technologically capable.

To achieve this vision of transforming health professional education and meeting Minnesota's health professional workforce needs, we will:

- **Launch the AHC Center for Interprofessional Education.** Collaboration and teamwork across the health professions is very powerful and is key to transforming the care delivery system and promoting better health. Interprofessional education brings students from different health professional programs together to learn collaboratively and to learn to function as health care teams. The center will promote, implement, support, and evaluate interprofessional education, including new interprofessional courses, activities, and programs for all health professional students. Interprofessional education will become a required part of every health professional student's program and will be designed to articulate easily with our professional degree programs.

- **Implement knowledge management systems.** Health professional education and practice are undergoing profound transformations driven by the explosion of new information and demand for new knowledge. Concurrently, educational models are becoming more learner-focused, students are becoming more diverse in background and experience, and technology innovations are creating entirely new environments and opportunities for learning. The AHC will develop knowledge management systems to manage this knowledge explosion while leveraging new opportunities and innovations to ensure that students, faculty, and staff are capable lifelong and collaborative learners.

  Knowledge management is grounded in the following key concepts:

  – Knowledge management is creating, identifying, and capturing knowledge; distributing the right knowledge to the right people at the right time and in the right form; and putting that information into action in ways that improve individual and community health.

  – The knowledge management system will be supported by technology, integrated with learner-centered curricula, and driven by the capabilities that students need to have in order to function as health professionals and leaders.

  When knowledge management systems are implemented in the AHC, we will be distinguished by:

  – Students who understand their own learning styles

  – Faculty who employ a diversity of teaching approaches, acknowledging variable learning styles among students

  – Curricula that are shared interprofessionally, with geographic and temporal flexibility

  – Interactive, content-rich, media-rich learning environments

  – An electronic knowledge base that facilitates exchange of ideas, information, and collaboration

  – The latest science and technology to monitor and improve the health of individuals and communities

- **Support new models of education** by creating new learning platforms, learning environments, and educational tools. The AHC, in collaboration with the Office of the Senior Vice President for Academic Affairs and Provost, is building a highly innovative and comprehensive learner-centered education and technology platform to support lifelong learning and progress toward those competencies and capabilities that are core to the health professions. Piloted first in the AHC's Center for Allied Health Programs, this initiative will leverage the wide range of University technology assets. Its goal is to serve learners with a highly personalized face-to-face and Web-accessible platform (as illustrated on page 12).

Concurrent with these efforts, the AHC will:

- Support curricular innovation in the schools and colleges of the AHC, such as the MED2010 Initiative in the Medical School, the establishment of a doctorate of nursing practice in the School of Nursing, and the establishment of the Center for Allied Health Programs

- Continue to engage in thoughtful workforce planning with our many community partners

- Seek a stable, long-term financial framework that supports sustainable growth in health professional programs, acknowledging that they are expensive, that they currently rely on a fragile web of funding sources, and that demand for health professionals continues to grow

- Create awareness of health careers, act creatively to populate the pipeline of students interested in the health sciences, reaching far back among K-12 students to stimulate and nurture interest in the health sciences, and make targeted efforts to work with the state's diverse populations to develop strategies that will lead to a more diverse health professional workforce

- Establish the AHC Academic Council, composed of AHC faculty, to review and provide counsel on new health professional academic programs and contribute to strategic oversight of academic program development in the AHC

EXCEPTIONAL FACULTY AND STAFF

Spotlight 6: Investing in Exceptional Faculty and Staff

New Investments FY 2007–08: $32.5 million

Objectives:

- Recruit identify, support, and reward stars on the rise

- Create a robust culture of collaboration that encourages and rewards boldness, imagination, and innovation

- Hire, develop, and place diverse faculty and staff in positions that match their skills and abilities with organizational needs

- Strengthen the performance evaluation and reward systems to fully engage, motivate, and challenge faculty and staff

- Significantly increase the number of faculty receiving awards of distinction

Example Investments:

- General compensation increase of 3.25 percent

- Market compensation adjustments

- Competitive compensation for highly recruited U faculty

- School of Dentistry: two strategic hires

- College of Pharmacy faculty support and development

- College of Design new faculty

- International scholarly initiative

The University's excellence stems from the quality of its human capital: exceptional faculty and staff. They are critical to recruiting and retaining the best and brightest students, attracting research funding to the University, garnering the attention of other world-class scholars, and strengthening the University's impact on our society.

We've taken steps to cultivate a culture of excellence at the University, and we continue to update our policies and practices to measure and celebrate performance, recognize service, and reward merit (see Spotlight 6). Expenses related to human resources (compensation, benefits, etc.) constitute the majority of the University's operating budget: As of FY 2005, the University had more than 18,000 employees (see Table 3).

World-Class Faculty

The University of Minnesota has many outstanding faculty members, but we expect to turn over roughly half of them and hire 1,000 new faculty in the next five to seven years. To achieve excellence, we must not only recruit great faculty, but also provide the environment, infrastructure, mentoring, inspiration, high standards, rewards, and recognition required to retain them. Strategies to address these challenges are already being implemented throughout the University.

Recruiting the best and brightest

Since selection of new faculty is the most important factor determining each department's research productivity, we must raise our recruitment standards across the institution.

To that end, the University will promote a culture across all colleges and departments to:

- **Hire for excellence**, not simply to fill a slot. To achieve this, search committee chairs will receive in-depth training, and departments will be required to define how the faculty position will advance the department. In addition, we will identify and proactively recruit nationally and internationally recognized candidates whether they have applied for a position or not.

Table 3: University Employee Profile

FY 2005	UMC	UMD	UMM	UMTC	Total
Civil Service/Bargaining Unit	114	774	198	8,672	9,758
Administrative	23	97	43	1,729	1,892
Faculty—Tenure, Tenure-Track	45	310	109	2,404	2,868
Faculty—Other	9	214	20	766	1,009
Professional	48	105	56	2,734	2,943
Total	239	1,500	426	16,305	18,470

- **Ensure strategic faculty hiring priorities** to strengthen areas of existing excellence, enhance areas on the verge of excellence, and target specific needs or opportunities (see Spotlight 7, for example).

- **Establish strategic partnerships** with institutions that have rich histories of educating scholars from underrepresented groups and with individuals who have served as mentors for diverse scholars.

- **Hold departments and colleges accountable** for excellence and diversity in hiring by asking for specific strategic plans and results from previous years during annual budget Compact discussions.

- **Develop more competitive compensation and benefits packages** through special merit increases and preventive retention packages for high-performing faculty.

Spotlight 7: Building Health Sciences Faculty

The University currently ranks 21st in the nation, and 10th among public research universities, in the amount of National Institutes of Health research funding. Competition for NIH funding is intense and will become more so as state governments and universities across the country redouble their commitments to biosciences research.

Improving our competitive position and moving up significantly in these rankings will require hiring new faculty and building and modernizing research facilities (see page 29). Specifically, to become one of the top three public research universities in terms of NIH funding will require 500 faculty hires in the health sciences over the next 10 years. New faculty are key to supporting the basic science engine of new discovery and to supporting the clinical sciences.

- **Facilitate spousal and partner hires**, implement family-friendly policies, and initiate a systemwide review of human resource policies and guidelines to ensure that existing rules advance our recruitment goals.

We've also greatly enhanced our recruiting communications, including a new Web site at **http://www.umn.edu/wishyouwerehere** and complementary materials addressing the opportunities and quality of life that have made Minnesota a destination state for people from around the world.

Mentoring and support

Mentoring and support are critical to the development and success of new faculty. This fall, the University debuted a three-day orientation program for new faculty on the Twin Cities campus. The goals of the program were to establish a sense of community across departmental and collegiate boundaries; introduce new faculty to our teaching, research, and public engagement mission; and expose them to the breadth and culture of the University. Approximately three fourths of invited faculty attended the orientation. In addition to this effort, we will:

- **Enhance existing training programs** for department heads, chairs, and faculty members through the Provost's Department Chairs Leadership Program and other initiatives.

- **Create additional development and enrichment opportunities** through initiatives such as the Women's Faculty Cabinet and orientation programs for new department heads and chairs.

- **Strengthen opportunities for faculty interaction**, including several new cross-collegiate interdisciplinary institutes and centers, to build collegiality across campus, departmental, and collegiate boundaries.

Rewarding excellence

The University rewards excellence in teaching and research in part through collegiate awards and University-wide honors. In 2007, our academic leaders successfully strengthened and improved promotion and tenure policies, standards, and procedures to create a culture of rigorous peer review that recognizes the breadth and diversity of legitimate academic work at the University and establishes clearly articulated criteria and sufficient resources.

Consistent with our goal and strategies, we must expand upon these clear standards of excellence. To this end, we will:

- **Expand all-University chairs and professorships** to strengthen recruitment and retention of outstanding faculty. The University has identified potential matching funds for as many as 25 new chairs or professorships, which have already increased from 17 in 1985 to 386 in 2005.

- **Expand Regents Professor awards** to 30 and increase the amount of the award, plus continue to recognize scholarly excellence through other internal awards such as McKnight professorships, fellowships, and chairs; the Scholars Walk and Wall of Discovery; Morse-Alumni, graduate, and professional teaching awards; and Tate advising awards.

- **Facilitate national recognition** by increasing faculty nominations for prestigious awards, honorary appointments, and professional academic recognition.

- **Compensate faculty for their performance** by increasing the pool of funds available for merit pay and market-competitive merit increases (by $6.25 million in FY 2007–08) to help retain highly recruited faculty and recruit outstanding new faculty.

- **Expand other internal competitive awards programs** to reward excellence in research, teaching, and public engagement.

Enhancing the research environment

Our goal is to provide faculty with an environment in which to flourish. The University will invest in systems and processes that support faculty scholarship and optimize use of existing resources, including grants-in-aid programs, dedicated research time, and administrative services. The vice president for research appoints the Research and Scholarship Advisory Panel, a committee of prominent researchers and scholars who inform decisions on collaborative research opportunities, infrastructure funding, and research space issues.

Additional administrative service support for the development of large collaborative and interdisciplinary research proposals will be provided through the new Office of Collaborative Research Services. Efforts are already underway to identify and rectify administrative policies and procedures that unnecessarily increase burdens associated with proposing and conducting research.

World-Class Staff

Investing in the success of all of our employees is key to achieving the institution's long-term objectives. We must create an environment where every individual understands what is expected, is fully engaged in his or her work, is empowered and encouraged to innovate and continuously improve, understands how performance will be assessed and rewarded, and has confidence in the leadership.

Engaging employees

Engaged employees are a high priority, with success in this area marked by employees who feel they are an important and valued part of the institution, understand how their daily responsibilities contribute to the overall mission, and are proud of their identity as an employee of the University of Minnesota. This will be accomplished through focused efforts to:

- **Create a strong start for new employees**, including "on-boarding" practices that provide a broad overview of the University's history, mission, values,

organization, and leadership and that promote strong University citizenship.

- **Develop leadership capacity**, knowledge, skills, and abilities that enhance position competence and University citizenship through initiatives such as the President's Emerging Leaders program, the Office of Service and Continuous Improvement's Transformational Leadership Program, and the new faculty and new deans orientation programs (see Spotlight 8).

- **Promote a healthy work environment** that enhances productivity, supports individual and group success, is responsibly managed, and fosters inclusiveness, employee well being, and the assurance of safety.

Evaluating performance

Performance management is a shared process that includes assessing, managing, planning, and improving an employee's performance to promote development that serves both the individual and the organization. To ensure effective management of the institution, a strong performance management system for all types of employees is a necessity. The most common characteristics of successful performance management systems presented in the literature include the following[*]:

- Holds managers accountable
- Mirrors organizational culture
- Links to merit and competitive compensation practices
- Integrates development with performance
- Includes individual feedback
- Provides continuous feedback
- Trains managers and employees
- Links each position to the system
- Focuses on the right measures
- Aligns daily activities with organizational strategies or goals
- Addresses employee expectations and renewal

The system must be holistic and supported by trained managers and supervisors who understand and can articulate the differences in performance levels. Development of such a system at the University began with a new comprehensive and streamlined approach to reviews for deans and senior administrators. More timely feedback to leaders, along with thoughtful analysis, will enable the development of interventions necessary for our leaders to succeed.

In addition, our position management module assists in the recruitment, development, and performance management of employees by tracking the requirements of a position as individuals leave and others are hired. University pay systems also are being analyzed to ensure linkages with competencies and performance management systems as they are defined.

[*] Williams, 2001, HRFocus, 2005; Neary 2003, SHRM 2004; Martone, 2003; Latham, G, Almost, J., Mann, S. and Moore, C., 2005.

EXCEPTIONAL ORGANIZATION

Spotlight 9: Investing in Exceptional Organization

New Investments FY 2007–08: $20.7 million

Objectives:

- Adopt best practices and embrace enterprise standard business practices, processes, and technology to achieve efficient, effective, and productive operations

- Promote nimble decision-making using data, information, research, and analysis

- Achieve a shared services administrative structure

- Align resources to support strategic priorities

- Commit to service and results that are best among peers

Example Investments:

- Strengthened technological security

- High-performance research network and connectivity

- Software and hardware maintenance

- Core facilities support (e.g., utilities, debt service, new building operations)

- Facilities Management transformation (e.g., service/accountability improvements)

- University Services capital management reforms

- Additional public safety and emergency management

- Staff support for scholarship activity

- Native American programming at UMD

- Equity and diversity priorities

- Library acquisitions and collections

"We must be as well known for our stewardship of public resources and the quality of our management as we are for education, research, and public engagement. This requires an exceptional organization working to support our academic responsibilities."

—President Robert H. Bruininks

Our goal is to be best among peers, focused on service, and driven by performance. To achieve this goal, we must invest in a new model of administrative support that clearly defines the roles, responsibilities and accountability of academic and administrative units; maximizes value; improves quality and efficiency; and responds more quickly to changing needs and dynamic external factors (see Spotlight 9).

Instilling a systemwide commitment to excellence requires that we move beyond incremental improvement and into an era of transformative change throughout our organization. The University should be known as much for its service and business innovation as for its high quality research, education, and public service. To achieve high levels of service, our operations must be nimble and focused on results, providing maximum support for the academic enterprise.

Focus on Service

"When our administrative service and support operations are maximized, academic leadership can better focus their creativity, energy, and effort on building the academic enterprise—a critical reality if we are to achieve our goal to become a top three public research university."

—Vice President Kathleen O'Brien

During their work and daily interactions, all members of the University community are service providers. Articulating the values we expect all members of our community to demonstrate is an important step in creating a culture of service.

Service to students

The University community must be committed to excellence and exceptional service in every interaction with the students we serve. In many cases, the keys to improving service to students are found in a common-sense approach to day-to-day activities, such as:

- **Enhancing the effectiveness of student communications** to ensure that they receive, read, and act on information from the University.

- **Ensuring optimal hours of operation** at such locations as the University libraries, dining facilities, and Boynton Health Center in order to serve students when they are most likely to need service.

- **Reviewing and improving student processes** as appropriate to maximize efficiency and convenience while minimizing financial costs, staff time, and frustrating delays.

Service to faculty, staff, and units

In any organization committed to excellence, an internal culture of service is just as important as positive interactions with external stakeholders. We must also find ways to create a proactive and agile organization that can respond quickly to internal challenges and opportunities. Examples of initiatives designed to improve the University's level of service to faculty, staff, and units systemwide include:

- **Reforming our research proposal routing forms and process** to gather necessary information more efficiently; streamline approvals even when multiple academic units are involved; improve accountability, eliminate redundancy, and implement business process improvements suggested by customers during the vice president for research's Policy Streamlining Initiative.

- **Maximizing the impact of Resource 25**, our central scheduling application now in use campuswide in the Twin Cities, which:

  – Improves usage of classroom space and quality of classroom time

  – Expedites the flow of important course scheduling information to systems, staff, and students

  – Prevents double-booking of department space and eliminates the need to enter scheduling information a second time via PeopleSoft

  – Allows for a quick search of the availability of a room or lab

  – Enables scheduling of resources ranging from laptops to technicians

  – Focuses investment and support systems on improving teaching and learning

- **Implementing a new capital project delivery method**, released in August 2006, which reduces overall project risk to the University and provides high quality service to the University community by meeting each project's scope, quality, schedule, and budget.

- **Establishing and supporting centralized multi-user research facilities** based on competitive proposals that enhance the research infrastructure in the sciences, engineering, and key interdisciplinary fields.

Planning, Management, Tracking, and Measurement

[The regents shall] make a report annually, to the Legislature...exhibiting the state and progress of the University ...and such other information as they may deem proper, or may from time to time be required of them...

—University charter, 1851 Territorial Laws, Chapter 3, Section 16

Since the University of Minnesota's inception, citizens, the state legislature, the federal government, the Board of Regents, alumni, students, parents, employers, and many others have held the University accountable for fulfilling its fundamental land-grant mission of teaching, research, and public engagement.

Over the years, the University has demonstrated accountability and progress via a wide range of methods and measures. These include:

• A comprehensive progress and impact report, submitted to the Board of Regents and the Minnesota legislature

• Institutional accreditation and accreditation of more than 200 programs by specialty agencies such as the American Medical Association, the American Bar Association, and countless others

• Dozens of monthly, quarterly, and annually mandated reports and documentation submitted to the Board of Regents (including budgets, audits, gifts, asset management, capital and academic planning, etc.)

• Compliance reports to at least 10 national, state, and local government agencies

• Numerous other voluntary public reports

Strategic decision-making based on the best available information and analysis is essential to improving performance and accountability. As an institution, we must measure what we value and then act accordingly. Timely and accurate information will result in clearer priorities, more effective use of existing resources, and economies of scale.

Information-based decision-making

Transforming the U has underscored the importance of sharing reliable, timely information in order to make strategic decisions. Improved flow of information is vital. In addition, broad agreement regarding measures and sources will lead to greater confidence in our decision-making process.

To facilitate information-based decision-making, we will:

• **Improve the validity and availability of management data** in order to facilitate the University's ability to manage operations and strategic activities. This includes a review of management data needs in order to address gaps, standardize definitions, and promote accessibility of information.

• **Strengthen the Compact process** by requiring alignment between unit plans, investments, and the University's top-three goal, as well as requiring leaders to assess and respond both to core performance measures and those unique to their units (see Spotlight 10).

• **Measure academic and administrative operations** by creating academic and administrative descriptive and performance profiles as a part of the annual Compact process. These provide a base of data for analyzing the units' strategic management performance on a set of institutional metrics specific to academic and administrative priorities. Academic performance profiles were developed for the 2006–07 Compact process; administrative and academic profiles were part of the 2007–08 Compact process. The metrics and data collection methods will continue to be refined over the next several years.

Spotlight 10: The Compact Process

University leaders developed our Compact process in the late 1990s in an effort to coordinate planning and accountability within academic and administrative units. The process provides a framework for discussing past and future strategic goals, fiscal issues, and responsibilities.

To better align our planning with strategic positioning efforts and to emphasize data-informed decision-making, major modifications have been made to the current Compact process. We are committed to strengthening Compact requirements by asking critical planning questions of colleges and administrative units, as well as creating performance metrics to assess academic and administrative functions. These metrics will provide a consistent framework for measuring unit progress and will reinforce our goal of improved accountability and transparency across the University system.

The improved Compact process will be required for chancellors, vice presidents, vice provosts, and deans, with further planning and assessment occurring at the department level.

Financial planning systems, budgeting, and accountability

Work is underway to replace our existing financial system with a new enterprise system that will fundamentally strengthen financial management at the University and will provide greater support to grants management. The new system will affect virtually all of the University's financial processes, from establishing accounts to reimbursing employees, providing better tools for financial management and better information for management decision-making; enhanced data analysis capabilities; and greater support for organizational and administrative goals.

It is anticipated that the new system will play an integral role in improving administrative and customer satisfaction by:

• Being flexible, adaptable, intuitive, and reliable

• Providing accurate, timely, comprehensive, and accessible information

• Improving risk management

• Streamlining and integrating business processes

The Enterprise Financial System project is a collaborative effort between business experts from throughout the system, the University Controller's Office, and the Office of Information Technology. For more information, visit **http://www.finsys.umn.edu**.

We have also put in place a new, transparent, and responsive budget model that supports the stated values of the institution, allows for long-term financial investments, and addresses the overhead needs of the University while providing reliable, stable, and predictable incentives for sound financial planning and strong fiscal management. Implementation began with the development of the FY 2007 budget. The model will continue to be revised as necessary. For more information, see **http://www.budget.umn.edu**.

Capital planning and policies

Clear, concise, and consistent planning and policies are at the foundation of any exceptional organization. We have embarked on a comprehensive review of our administrative policies, as well as the University's master plan and the capital planning process. Moving forward, we will:

• **Restructure governing board and administrative policies** to ensure appropriate authority or delegation from the Board of Regents and the president; eliminate conflicts with other internal policies or external regulatory requirements; create a format that is consistent, recognizable, and accessible; and communicate standing policy more clearly and understandably to faculty, staff, students, and the public.

• **Assess the condition of facilities** via a comprehensive inspection of the University's campus facilities and infrastructure portfolio. We have shifted the focus of facilities condition assessment away from a depreciation model to an inspection-based process and have created a central repository of facilities-needs information.

- **Update the University master plan and process**, which will guide campus planning and development for the next 10 years. Final review and approval of the revised master plan by the Board of Regents should occur in fall 2008. Specific objectives include:

  – Aligning and integrating the master plan with core activities such as strategic positioning, academic planning, and funding

  – Focusing on *growing a campus* rather than building buildings

  – Instilling principles of sustainability to improve the campus for future students, staff, and faculty

  – Optimizing our association with the Mississippi River

  – Increasing ownership of the master plan by the University community and ensuring meaningful consultation with key constituencies

  – Ensuring that plans for coordinate campuses and statewide resources align with University values, strategic priorities, and goals

- **Enhance the capital planning process** to integrate academic program planning, facilities condition assessment, and financial parameters, using a system that clarifies program needs, analyzes the appropriateness of a proposed solution, and aligns the project with the University's strategic goals (see Spotlight 11).

Shared services

The University is a large, complex organization—each academic unit has different needs, operates in different competitive environments, and responds to different external forces. At the same time, to compete with peer institutions, we must provide shared or consolidated services when there are significant economies of scale, when a critical mass of expertise is required to provide effective services, or when emerging issues can be addressed effectively only by pooling resources across schools or units.

Spotlight 11: Capital Planning Framework

The four pillars of strategic positioning have been integrated into the capital planning process, resulting in capital planning goal statements that are strategically aligned with the University's overall direction and goals:

- **Exceptional Students**: Be a national leader and innovator in creating premier learning environments

- **Exceptional Faculty and Staff**: Support outstanding teaching, research, and service to Minnesota

- **Exceptional Organization**: Enhance and effectively use infrastructure and resources, including optimizing energy efficiency through improved design, processes, and technology

- **Exceptional Innovation**: Advance discovery and knowledge creation for the state, nation, and world

This adaptation of the four pillars helps to provide a strategically aligned framework and clear goals for all capital projects moving forward.

A new shared-services model is in development. Its guiding principles have been applied and refined in the three new colleges, the Enterprise Financial System project, and the Facilities Management transformation. Broad implementation and success of this model will require a strong partnership between central administration and collegiate units.

Single-enterprise solutions

There is a compelling case for recognizing the University as a single enterprise for the purposes of transforming its culture to promote excellence and improve accountability, impact, and service. To optimize the efforts that staff and faculty expend each day, the University must establish uniform standards and systems and thereby reduce duplicative processes that create high cost, consume unnecessary institutional energy, and produce inconsistent results.

A process for analyzing, designating, and promoting single enterprise solutions was designed and put in place this year. Single enterprise solutions will be selected based on their ability to reduce complexity, achieve cost savings, enhance service, improve outcomes, and

allow faculty, staff, and students to focus their energies on primary activities rather than navigating operational labyrinths.

Managing facilities

In 2006, Facilities Management successfully completed an inclusive and comprehensive design and definition process. The process used focus group discussions with academic units, faculty, and Facilities Management staff; surveys and interviews within the University community; and best-practice research in academic institutions, government agencies, and private enterprise.

Implementation of Facilities Management's transformation is underway and will ensure Facilities Management achieves its goal of becoming a customer-focused organization with a culture of accountability, delivering cost-effective, high quality service to students, faculty, staff, and academic units:

- In partnership with academic units, Facilities Management is implementing service-level agreements to formally establish expected levels of service unit-by-unit. Service levels will be reviewed annually as part of the budget process, and key process indicators will be used to ensure performance and accountability.

- A comprehensive staff performance and development system will result in clear performance expectations for Facilities Management personnel, improved communication, increased accountability, and consistent performance.

- Facilities Management will continue to examine and improve internal business processes in order to create financial and activity-based reports that enable the organization to measure performance internally and externally.

- Facilities Management's new structure will feature district-based, cross-functional teams that build strong relationships with the academic units they serve and in-depth systems knowledge of the facilities they maintain.

Spotlight 12: Minnesota Biomedical Sciences Research Facilities Authority

Given that the current model of capital bonding in the state will not support the needed level of investment and growth to keep biomedical sciences strong at the University and in the state, during the previous two legislative sessions the University asked the Minnesota Legislature to create the Minnesota Biomedical Sciences Research Facilities Authority. This new authority would support the construction or renovation of capital facilities and related equipment to facilitate biomedical sciences research.

As proposed, the authority would be authorized to issue up to $279 million in state general-obligation debt to support the construction or renovation of one biomedical sciences research building every other year for eight years. Although such an authority has yet to be approved by the legislature, the University will continue to explore funding alternatives that will enable the construction of much-needed facilities and keep Minnesota at the forefront of biomedical research and innovation.

Financing and building new research facilities

The University faces increasingly stiff competition to enhance its stature in the biosciences, as other states announce major initiatives to build new bioscience facilities and hire new faculty at their public research universities. Unfortunately, the University has a severe shortage of bioscience research space for its current faculty and cannot hire additional faculty without new facilities. For Minnesota to remain strong and competitive in the biosciences, major state-of-the-art facilities are needed.

The complexity of the situation is the result of many factors:

- The demands of leading-edge biomedical science for sophisticated technologies and appropriate space

- The age of many existing facilities

- The high cost of renovating old buildings

- The non-feasibility of renovating certain facilities for research laboratories

- The need to replace facilities that have serious structural problems

The estimated space needed to meet current and future needs is 300,000 to 400,000 square feet. Through the course of discussions within the University and between the University and the Minnesota Legislature over the past two years, this acute need for biomedical science research facilities has been established. The University is engaged with the legislature to identify a funding mechanism for these facilities (see Spotlight 12, for example).

Technology planning

As one of the University's three most significant cost drivers (along with human resources and facilities), technology expenditures demand careful consideration and planning to enable us to optimally position our technical resources to take advantage of technological advances and meet evolving needs.

To this end, the Office of Information Technology (OIT) and Vice President and Chief Information Officer Steve Cawley are developing the OIT Pipeline, a six-year information technology (IT) planning framework similar in scope and vision to the University's six-year capital plan. The plan establishes several Enterprise Technology Investment principles to guide decision-making:

- Institutional vision and mission alignment
- Institutional mission criticality
- Strategic leadership opportunity
- Interoperability
- Common need
- Institutional economy-of-scale value
- Technology maturity
- Institutional risk
- Entrepreneurial potential

The goals of the plan include providing leadership with the right information to make major IT investment and prioritization decisions, and managing the IT investment pipeline in a way that is aligned with the University's goals and strategies. The pipeline will enable the University to be more nimble, leverage existing tools and mechanisms more effectively, and deliver higher quality solutions on time and more efficiently.

In collaboration with the Office of the Vice President for Research and other campus leaders, OIT has also embarked on an analysis of the University's research computing infrastructure and will develop a plan to ensure that we remain competitive in this critical area.

Library technology and information services

Substantial investment in the University Libraries over the past three years has enabled the simultaneous development of collections, technology infrastructure, and new forms of service—all of which have contributed to interdisciplinary research and collaboration. The University Libraries have launched numerous technological initiatives that impact the research process, including:

- **The University Digital Conservancy**, which provides the infrastructure to preserve and make accessible the digital assets of the University.

- **OneSearch**, a "meta-search" engine that enables scholars to search across multiple indexes and journal databases, enabling researchers to design customized arenas (combining disciplines) for discovery.

- **Subscription "news feed" services**, for interdisciplinary fields (e.g., nanotechnology), that automatically deliver lists of new research publications to research communities via e-mail.

- **Customized views of library content and services** based on "affinity strings" (i.e., a set of values that reflects an individual's affiliation, status, academic program, or courses), now available to selected student populations via MyU Portal.

- **UThink**, the University's blog service, hosted by the University Libraries, which supports and catalyzes collaboration and exchange and is now thought to be the largest academic blog in North America.

The University Libraries are also a partner in a National Science Foundation-supported project with Computer Science—the TechLens project is enhancing access to digital content via the use of individual preferences and citations in order to inform the research of individuals with similar interests.

EXCEPTIONAL ORGANIZATION

Sustainability and Environmental Impact

The University of Minnesota is a leader in environmental issues and practices. While sustainability efforts have been a part of our programming for many years, the University has increased its focus and commitment to the environment significantly in the past four years. A rigorous sustainability agenda has been developed that incorporates all areas of the institution, including academic programs and operations.

In 2002, the Commission on Environmental Science and Policy, a 32-member panel of esteemed University faculty and collegiate deans, put forth a series of recommendations to strengthen the University's commitment to environmental science and policy. To advance this important agenda, the president charged the Sustainability and Energy Conservation Policy Work Group in 2003 to develop a policy framework that would translate into long-term systematic strategies for integrating sustainable practices and energy conservation across research, teaching, operations, and outreach. This policy, which was codified by the Board of Regents in 2004, helps to integrate sustainability principles into the decision-making and programming of the University.

The University has demonstrated its commitment to sustainability in significant and high-impact ways. Key examples include but are not limited to the following:

• **The Initiative on Renewable Energy and the Environment** (IREE) is focused on maintaining a healthy, productive environment that will continue to support life in the face of an increasing world population, energy shortages, shrinking freshwater supplies, destruction of natural habitats, and declining genetic diversity. IREE integrates all we know—from scientific, economic, social, and spiritual perspectives—to understand and resolve these issues. The initiative is supported by three major projects: implementing recommendations from the University's Commission on Environmental Science and Policy; researching technology transfer on renewable energy; and, under the leadership of University

Spotlight 13: Fleet Services

Under the leadership of Fleet Services director Bill Roberts, the University of Minnesota has become one of the largest users of E85 in the state and is now using B20 in its diesel vehicles. As a result, in both 2005 and 2006, U Fleet Services was named among the 100 Best Fleets in North America and won the 2005 Governor's MnGREAT Award, presented at a special ceremony during the Minnesota Air, Water, and Waste Environmental Conference.

Biofuel blends, including E85 (85 percent ethanol and 15 percent gasoline) and B20 (20 percent biodiesel and 80 percent diesel fuel), are becoming increasingly available and popular.

• E85 burns cleaner and is often cheaper than regular gasoline.

• U.S. automakers are actively developing and marketing "flexible-fuel" vehicles that will run on both regular gasoline and E85.

• B20 also burns more cleanly than regular diesel, and the diesel fuel cycle is generally more efficient than the gasoline cycle, reducing fuel consumption.

• Both solutions represent renewable fuel sources that benefit Minnesota agriculture and may reduce our dependence on foreign oil.

The University operates 90 flexible-fuel vehicles systemwide, as well as 30 gas-electric hybrids. Chippewa Valley Co-op supplies the University with E85 at a rate that's 60 cents less per gallon than regular unleaded gasoline. B20 is also priced competitively.

Services, integrating sustainable practices and energy conservation at the University (see Spotlight 13, for example).

• **The Institute on the Environment** was recently created to address, identify, organize, and support collaborative interdisciplinary research teams to develop and disseminate innovative and practical solutions to the most pressing environmental problems of our era. The Institute will also facilitate, coordinate, and disseminate relevant information on environmental research, courses, programs, activities, and expertise throughout the University of Minnesota system.

- Occurring on Earth Day each year, **Beautiful U Day** is an annual systemwide initiative celebrating the University's natural resources, buildings, and grounds. This decade-old initiative combines hands-on beautification efforts with academic forums to celebrate our campuses and acknowledge our responsibility to maintain our physical and natural resources.

- The University of Minnesota is an active participant in the **Chicago Climate Exchange** (CCX). This voluntary, legally binding multi-sector market for reducing and trading greenhouse gas emissions places the University in a growing group of organizations committed to the development of a rules-based North American greenhouse gas emission-reduction program. The University is the fourth educational institution and the largest public research university to join CCX. Our involvement is led by the Energy Management division of Facilities Management, with assistance from the Initiative for Renewable Energy and the Environment (IREE), the College of Biological Sciences, and many scholars from across campus.

- The University is a leader in utilizing **biomass energy sources**, specifically on the Minneapolis and Morris campuses. At the Southeast Minneapolis steam plant, the University is burning oat hulls to provide power for heating and cooling systems. Emissions pilot testing completed during 2003 demonstrated that oat hulls burn cleaner than coal and are a renewable energy source that does not contribute to new carbon dioxide production, as would carbon-based fuels such as natural gas. At the University of Minnesota Morris campus, a biomass gasification system that uses corn stover as its primary fuel source is under construction. Once completed, up to 75 percent of the heat and cooling loads for the campus will come from alternative energy. It is intended to reduce the use of natural gas and fuel oil as the campus energy source.

- **The Sarita Wetland Restoration Project** is improving water quality on the St. Paul campus by creating infiltration basins and rain gardens, restoring native plants to the wetland area, and improving wildlife habitat in the area. The area is also used for education and research. When the project is finished, there will be a restored wetland; an urban stream with a variety of habitats; research sites; an educational trail; and research plots and innovative storm-water management sites in the upland area of campus. Never before have the academic and operational departments at the University collaborated on a project of this magnitude.

Re-Imagining Diversity

"The discovery of new knowledge only takes place when new questions are asked by people with different perspectives, different needs, and different frames of reference. This is why we believe that *diversity drives discovery*."

—Vice President Nancy "Rusty" Barceló

With the appointment of Dr. Nancy "Rusty" Barceló in 2006 and the elevation of her role to vice president and vice provost, the Office for Equity and Diversity (OED) at the University of Minnesota was re-invented as an institutional asset at the highest administrative level. This effort was intended to move the University's equity and diversity work from the margins of the institution's mission to its core.

Moreover, it represents a complete re-imagining of the meaning of diversity at the University. Since the implementation of affirmative action policies in the 1970s, "diversity" has primarily focused on race, and much of the work of the last 30 years has focused on making our institutions and organizations look racially diverse. Today, the University has stepped forward as a

progressive leader and a change agent in expanding this definition:

- Colleges and units across the system are developing their own strategic diversity plans.

- Units are creating new ways to incorporate equity and diversity into their work, such as:

  – Expansion of the Diversity of Views and Experiences (DOVE) Fellowship, which seeks to assist graduate programs in promoting diversity of views and experiences in the pursuit of research, scholarship, and creative excellence, from $270,000 and 15 students in 2000–01 to $800,000 and 23 students in 2007–08

  – Reevaluation of the Graduate School's current admissions processes

  – Focus of the College of Liberal Arts on recruiting undergraduate students from underrepresented and marginalized populations

  – Creation of the School of Dentistry's new clinic in Willmar, Minnesota, designed to serve the Somali and other underserved populations

- There is a growing understanding across all academic departments regarding the need to recruit, retain, and advance faculty of color, supported by the Office of Human Resources' work on a new spousal hiring program.

OED is planning a number of equity and diversity initiatives for FY 2008, including:

- **Exploring the creation of a Diversity Research Institute** at the University. The institute would be the signature program of the University's equity and diversity faculty initiatives, and would produce and support scholarship by and about underrepresented groups and cultures.

- **Planning for the creation of an Equity and Diversity Action Network**, a systemwide cohort of professionals whose primary job responsibilities are related to equity and diversity. Once formed, this group will meet regularly to share ideas and best practices.

- **Sponsoring a yearlong, campuswide series of open forums on identity** for faculty, staff, and students at the U. These "identity dialogues" will provide a place for all members of the University community to come together to discuss the complex issues surrounding multiple identities and how those identities impact us all.

- **Improving our communications** within OED, between OED and the campus, and with external communities. The OED communications plan, completed in June, proposes a number of strategic projects, including an OED visual identity system, an OED resource guide for faculty, staff, and administrators, and an overhaul of OED's Web site.

By understanding, respecting, and capitalizing on the strengths of diverse experiences and perspectives, the University will enrich the lives of all its constituents— faculty, staff, students, alumni, and the community. And by infusing equity and diversity into our teaching, learning, research, and service, the University will achieve a level of excellence that will position it as a national model.

EXCEPTIONAL INNOVATION

Achieving our goal of becoming one of the top three public research university systems in the world will require exceptional innovation. We cannot be content with the "tried and true." Instead, we must facilitate and invest in new models of collaboration and cooperation that enable us to engage partners in problem-solving, inspire new ideas and breakthrough discoveries, address critical problems, and serve the greater good (see Spotlight 14).

Creating Academic Synergies

The recent closing of six colleges and the reconfiguration of disciplines into three new cross-disciplinary colleges on the Twin Cities campus is just one example of how we're working to create synergies that will advance interdisciplinary inquiry, enhance curricular choices and content for students, and better position the University to address critical and emerging issues of the day. In particular, the closing of General College in favor of an expanded role for the new College of Education and Human Development in meeting the needs of underprepared students who show academic promise illustrates the University's commitment to finding better, more collaborative ways of living up to our mission and the public's expectations.

- **We created the College of Design** to encompass all of the design disciplines at the University—graphic design, apparel design, retail merchandising, interior design, housing studies, architecture, and landscape architecture—by combining the former College of Human Ecology's Department of Design, Housing, and Apparel with the former College of Architecture and Landscape Architecture. This new collegiate structure strengthens the University's leadership in academic research and education in the area of design, and helps establish it as home to one of the preeminent design colleges in the country.

Spotlight 14: Investing in Exceptional Innovation

New Investments FY 2007–08: $33.6 million

Objectives:

- Foster an environment of creativity that encourages evolution of dynamic fields of inquiry

- Invest in strong core disciplines while supporting cross-disciplinary, collaborative inquiry

- Fully leverage our academic, research, and community partnerships and alliances to provide leadership in a global context

- Develop innovative strategies to accelerate the efficient and effective transfer and utilization of knowledge for the public good

Example Investments:

- Institute on the Environment

- Institute for Translation Neuroscience

- Institute for the Advancement of Science and Engineering

- Medical devices initiative expansion

- Nanotechnology initiative

- Virtual research corridors in key health areas

- Clinical translational research

- Neighborhood revitalization

- Northside Partnership grants and initiatives

- Lifelong learning initiative

- Humphrey Institute public engagement support
- American Indian/minority health

- **We formed the College of Education and Human Development** by joining the former College of Education and Human Development with the former General College and the former College of Human Ecology's Department of Family Social Science and School of Social Work. The new college is poised to become a world leader in creating and advancing knowledge in the fields of education, family systems, human welfare, and human development across the lifespan by conducting rigorous cross-disciplinary research; identifying and applying creative solutions to the pressing problems of individuals, families, societies, and countries in timely, relevant ways; and transmitting knowledge through quality publications and products, teaching and public engagement, and the dissemination of research findings.

- **We created the College of Food, Agricultural and Natural Resource Sciences** by joining the former College of Natural Resources, the former College of Human Ecology's Department of Food Science and Nutrition, and the former College of Agricultural, Food and Environmental Sciences. The new college encompasses food production and systems, environmental science, and renewable resources, and is a nationally distinctive college poised to enhance the University's biological and social science contributions to the environment, agriculture, human health, food systems, and natural resources in the 21st century.

The changes provide fertile ground for collaborative research and enhanced curricular quality and selection, and have led to more effective service and efficient operations, resulting in $3 million to $4 million in savings during FY 2006, with more savings expected over the next two to five years. The savings will be reinvested in academic initiatives over the next several years. These changes have also distributed additional tuition revenue to other areas scheduled for growth in enrollment.

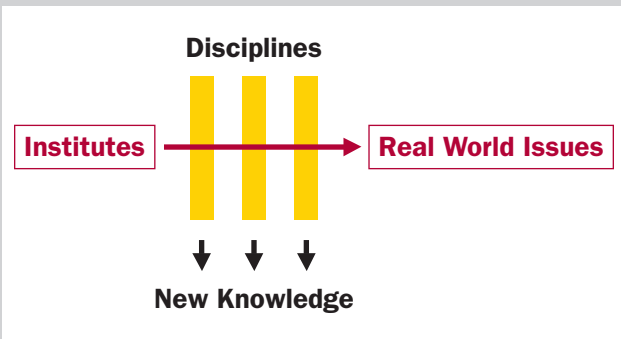## Spotlight 15: Interdisciplinary Initiatives

Figure 3: Solving Problems Across Disciplines*

The University of Minnesota seeks to maintain and strengthen excellence not only by investing in its traditional academic programs but also by cultivating new programs that cross disciplinary boundaries. To that end, the University has invested in numerous interdisciplinary initiatives, a number of which have also received state funds through biennial budget requests.

In his 2003 State of the University address, President Bruininks identified eight interdisciplinary areas to target for investment:

- Arts and Humanities
- Biocatalysis
- Brain Function Across the Lifespan
- Children, Youth, and Families
- Environment and Renewable Energy
- Healthy Foods, Healthy Lives
- Law and Values in Health, Environment, and the Life Sciences
- Translational Research in Human Health

Strategic positioning has resulted in an additional endeavor, the Consortium on Fostering Interdisciplinary Inquiry. These major initiatives are now assigned to senior University officers for oversight, guidance, and evaluation. The Office of Academic Affairs and Provost supports their efforts through monitoring and budgeting for interdisciplinary initiatives; oversight of the Compact process and academic program review; periodic review of interdisciplinary initiatives; and providing leadership for the interdisciplinary conference series.

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*   Deb Swackhamer, director, Institute on the Environment

Advancing Interdisciplinary Inquiry

With more than 350 interdisciplinary programs, centers, and majors, the University's commitment to interdisciplinary research, education, and outreach is not new. In many cases, these interdisciplinary activities developed from departments and disciplines of distinction (see Spotlight 15).

During the University's strategic positioning process, multiple task forces identified fostering interdisciplinary activity as a critical institutional priority. As a result, the University is sharpening its focus on interdisciplinary initiatives systemwide. The University will build on its tradition of focused investment in major interdisciplinary initiatives through:

- **Substantial central investment**, with support from the state, to address increasingly complex intellectual, scientific, and social problems

- **Incentives for cross-college collaboration** as part of the budget Compact process that guides central investments in the colleges

- **Support for selected, newly formed centers** of interdisciplinary inquiry that foster collaboration, such as the Institute for Advanced Study, the Institute on the Environment, the Institute for Translational Neuroscience, and the Institute for the Advancement of Science and Engineering (see Spotlight 16)

- **New investments** to foster collaboration across research, training, and graduate education functions

- **Changes in policies** to ensure that interdisciplinary work is adequately valued in the tenure and promotion process, and changes in policies to allow for equitable distribution of indirect cost recovery for interdisciplinary grants

- **Development of leadership capacity** for interdisciplinary initiatives and of active networks of interdisciplinary scholars and artists

Spotlight 16: The Institute Model

Serious interdisciplinary work both requires and strengthens core academic fields. We believe interdisciplinary institutes provide a flexible, responsive model for conducting research and attracting support in the future.

Interdisciplinary thinking not only sparks new ideas for research and innovation but also benefits students and the public. The University's Institute for Advanced Study, for example, encourages scholars to view topics through the eyes of their peers for the sake of sparking interaction and new thinking.

The resulting tension fuels creativity and innovation within disciplines as well as between them, which is good for everyone. And the IAS translates the results into opportunities to engage the broader University community.

The Institute for Global Studies facilitates a similar type of exploration by bringing together small groups of faculty from across disciplines to interact and discuss the big issues of the day, then rapidly organizing and implementing a speaker series, for example, or a single-credit course—often in a matter of several weeks.

The Institute on the Environment recently received a $300,000 contract from the Legislative-Citizen Commission on Minnesota Resources (LCCMR) to develop a comprehensive conservation and preservation plan for the state of Minnesota, putting dozens of faculty from a wide range of disciplines to work on a project that defines public service and engagement.

None of this is to say disciplines should fall by the wayside, however. Interdisciplinary research draws its strength from strong disciplines. And while students and society may benefit from this broad-based approach to problem-solving, IAS director Ann Waltner says that many employers still expect graduates to have a degree focused in a single, defined discipline.

- **Establishment of new services**, such as the Office of Collaborative Research Services, to support preparation and management of complex interdisciplinary research collaboratives

The future will require more ambitious goals and sophisticated strategies for identifying, supporting, and sustaining the University's interdisciplinary endeavors, as well as a flexible infrastructure that can respond to emerging needs with agility.

Central coordination and oversight

Fostering interdisciplinary activity requires coordination and collaboration across traditional administrative boundaries as well as academic silos. An important new collaborative strategy includes central leadership and systemwide coordination of interdisciplinary activities by the Provost's Interdisciplinary Team and the Provost's Research Advisory Council in consultation with the senior administration. The Provost's Interdisciplinary Team is formulating a comprehensive plan for developing new initiatives, supporting promising projects, evaluating future investment in successful initiatives, and creating a culture that rewards outstanding interdisciplinary research, teaching, and outreach.

Investments in innovation

In the highly competitive funding environment that exists today, breakthrough ideas and collaborations need to have a history of productivity in order to compete favorably for external funding. To be successful, the University must not only create opportunities to bring investigators together to imagine new and exciting research opportunities, it must also provide funding for the best and brightest projects early in their development. In short, we must also invest wisely in support of innovation.

Numerous mechanisms have been developed to accomplish this objective. The following are prime examples of such initiatives:

- **Minnesota Futures Grant Program** is a new internal grant program offered by the Office of the Vice President for Research. The program is modeled after the successful National Academies "Keck Futures Initiative" and is designed to convert the ideas of teams of investigators into new pathways of discovery. In phase I, funding is provided on a competitive basis for interdisciplinary symposia around important research issues, while in phase II, funding for follow-on collaborative research proposals originating from symposium participants will be awarded to the most meritorious proposals.

- **Innovation by Design** is a pilot program to create a University-wide entrepreneurial framework on which to build a series of market-driven, multidisciplinary projects designed to foster collaborative innovation among students, faculty, and industry. The program is patterned after similar efforts pioneered at Stanford and MIT. The first iteration of the program focused on breakthrough opportunities in renewable energy technologies that are both environmentally sustainable and commercially viable.

Interdisciplinary education

The University's leadership in fostering inquiry across disciplinary boundaries must extend to its education mission. Particularly at the graduate level, we must strive to prepare future faculty, as well as leaders in other sectors, to utilize the tools and methods of multiple disciplines to solve complex societal and intellectual problems. The Graduate School supports the development of interdisciplinary education programs in areas of strength at the University and provides matching funds that encourage faculty to apply for training grants to support the implementation of best practices.

Undergraduate education is *inherently* interdisciplinary, as students explore a range of disciplines on the way to choosing a major or majors. And true interdisciplinary opportunities for undergraduates stem from new developments in research and scholarship. Over the next year, the Provost's Interdisciplinary Team will explore new possibilities for undergraduate interdisciplinary research, seminars, and internship opportunities and work toward cutting edge opportunities for the University's undergraduate students.

Cultural support

Traditional academic culture can present barriers to interdisciplinary work. The administration and faculty

have undertaken changes in institutional policies and practices to ensure that collaborative work is adequately valued, including a careful revision of the tenure and promotion process. The Provost's Interdisciplinary Team will develop an interdisciplinary leadership development program and a network of interdisciplinary initiatives to increase capacity in this area. In addition, the University will focus on recognition and incentives for collaborative contributions to research and education.

Stimulating Discovery

"Strategic positioning has put the University in position to attain its research goals. The U has seen continuous growth of research funding over the last decade, [and] has identified critical challenges and formulated strategic responses. … I believe the U can win."

—Vice President Tim Mulcahy*

Given the breadth of the University's knowledge, astonishing discoveries are possible—from basic to applied research, from art to engineering. To stimulate opportunities for discovery, the University must provide:

- Critical core facilities
- Faculty-led peer review to allocate resources
- Bold decision-making
- Transparency
- Courage to reallocate resources
- Support to explore ideas
- Leadership to nurture ideas
- An open door for its public and private partners
- Time for its faculty to create

Collaborative research

We aspire to be known internationally for innovation and excellence in collaborative research and for the ease with which collaborations are established. To accomplish

this, we must leverage partnerships inside and outside the University. Interdisciplinary, interprofessional, interinstitutional collaborative research that combines the expertise in the natural, physical, health, and social sciences is essential for success.

Such a collaborative environment will attract highly talented investigators and team leaders worldwide and will enable the University to:

- Capitalize on intellectual energy and synergy across disciplines of distinction

- Work to solve the most complex and critical problems facing society

- Develop and provide national and international leadership in new fields

- Emphasize the types of interdisciplinary initiatives likely to garner support from major funding agencies

The AHC's research corridors concept provides one example of such a collaborative environment (see Figure 4— For more information, go to **http://www .umn.edu/systemwide/strategic_positioning** and select Corridors of Discovery under Exceptional Innovation). In the context of the AHC, research corridors are conceptual passageways for biomedical and health research, moving a new idea or new knowledge to its end either as a new way to prevent disease, a new treatment, a new product, or even a new industry for Minnesota.

The health sciences faculty has defined its initial research corridors as follows:

- Heart and Cardiovascular Disease
- Cancer
- Diabetes
- Brain, Nerve, and Muscle Diseases
- Emerging Infectious Diseases
- Drug Design and Development
- Health Care Evaluation and Improvement

It is expected that, over time, new corridors will be developed and others will transition into a new form
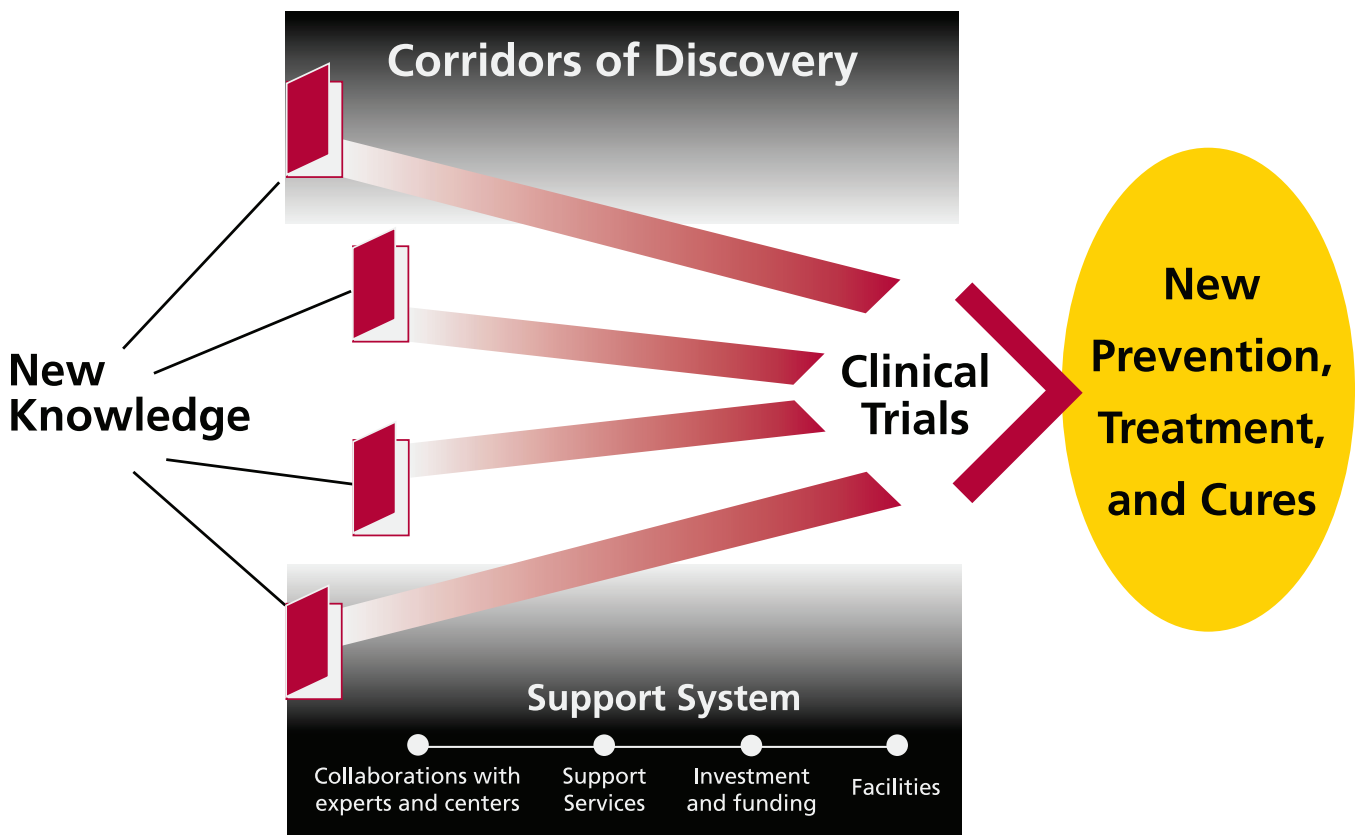
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* "Up to the task," *Brief*, Feb. 14, 2007.

Figure 4: Corridors of Discovery

or gradually phase out. Developing such corridors will require new faculty, new facilities, and strengthened support and infrastructure for clinical and translational research.

Support for collaboration

In addition to world-class research facilities, complex research collaborations require experienced, imaginative administrative support in order to sustain a dynamic research environment. Often projects in their initial stages cannot garner this level of support within an already overextended department. The University can nurture these fledging projects through developmental stages by drawing on administrative experts from a central source for a temporary period. The newly created Office of Collaborative Research Services in the Office of the Vice President for Research will furnish technical and managerial assistance until the project can stand alone. The office provides an array of technical know-how, from finding additional funding, to developing staffing and leadership plans, to building community partnerships. The University of Minnesota is on the leading edge nationally in establishing these vital central services in support of research.

Core facilities and structures

Finally, the University must provide core facilities and structures to support our disciplinary and interdisciplinary strengths. Facilities as diverse as the Supercomputing Center, the Arts Quarter, the Biomedical Genomics Center, and the Center for Magnetic Resonance Research must be kept vital, and the University must make every effort to identify emerging research opportunities appropriate for these facilities and capitalize on them.

Transforming Clinical Sciences

The University's strategic positioning task force on clinical sciences summed up the essence and mission of the Academic Health Center as "the contributions of scientific disciplines to health promotion and the prevention, diagnosis, and treatment of disease through the development (research), communication (teaching), and application (clinical care delivery) of new knowledge."[*]

Encompassing clinical research, clinical care and practice, and the experiential education of future health professionals, the clinical sciences constitute the final

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[*]   Transforming the University: Final Report of the Clinical Sciences Enterprise Task Force, May 5, 2006.

stage of bringing new knowledge to the treatment and prevention of disease. Strong clinical sciences are essential for:

- Training future health professionals
- Ensuring that discoveries come to fruition in new therapies, treatments, and cures
- Developing new models of care and prevention
- Improving the health of communities
- Supporting the bioscience economy of Minnesota

Through clinical revenues, the clinical sciences also provide critical funding for the education and research missions of our AHC schools.

Research support and infrastructure

We will undertake the following three initiatives to provide more efficient and effective support for clinical and translational research:

- **Support the Institute for Clinical and Translational Research**, a highly visible academic home and physical space that nurtures, supports, and rewards clinical and translational research. The institute will coordinate and integrate several existing components of the clinical and translational research infrastructure, thereby facilitating research collaborations across disciplines, institutions, and communities.

- **Build a strong biosciences informatics program**, an interdisciplinary and interprofessional field of scholarship that applies computer, mathematics, information, and cognitive sciences to promote the effective and efficient use and analysis of information to advance basic and translational research and improve health.

- **Establish the Center for Translational Medicine**, to accelerate translation of basic discoveries to advances with the potential to improve health care and revolutionize clinical practice. The integrated resources within the center will speed the testing of new treatment strategies in human and animal patients.

Strengthening clinical practice

Clinical practice is essential to fulfilling the mission of health professional schools. Faculty must practice their disciplines in order to teach the next generation of health professionals and to engage in the translation of new knowledge to patient care and community health. To strengthen clinical practice, we will:

- **Create an environment that values and rewards excellence**, innovation, and quality improvements in health care. The AHC schools and colleges will weave this objective into their integrated reviews of academic personnel plans, 7.12 statements, school constitutions, and faculty annual review processes.

- **Develop interprofessional models of acute, chronic, and preventive care** that transform care delivery. New care models will employ teams of health professionals and innovative care systems. This effort will dovetail with the AHC's commitment to build and strengthen interprofessional education for all health professional students.

- **Create new facilities for care, research, and training.** University of Minnesota Physicians (UMP) clinics are overcrowded, worn, inefficient, and difficult for patients to reach. We will build a new UMP clinic that meets the needs of patients; that supports health professional education, clinical research, and interprofessional care teams; and that enables UMP to be viable in Minnesota's health care market. We will also plan for a new replacement Children's Hospital in partnership with Fairview Health System. These new and retrofitted facilities will provide state-of-the-art clinical care to children and will consolidate programs in an optimal physical environment.

Engaging Government, Industry, and the Public

As a statewide land-grant and public research university, the University of Minnesota is committed to partnering with diverse external constituencies in order to:

- Share knowledge and resources

- Enrich scholarship, research, and creative activity

- Enhance curriculum, teaching, and learning

- Prepare educated, engaged citizens

- Strengthen democratic values and civic responsibility

- Address critical societal issues

- Contribute to the public good, economic development, and quality of life

We advance this commitment by aligning our academic programs and offerings to the needs of society, by reaching out to and partnering with the public to address issues of common concern, and by facilitating the transfer of knowledge through our campuses, research and outreach centers, and offices statewide (see Spotlight 17).

Research and technology commercialization

The University's role in generating new knowledge and innovation through basic and applied research is critical to regional economic development and the improvement of the quality of life for citizens of the state of Minnesota, the nation, and the world. To realize the full potential of the University's discovery-based research economy, the U must have effective and efficient mechanisms to transfer innovation from basic discoveries to life-enhancing technologies.

Commercialization of intellectual property, a requirement of the federal Bayh-Dole Act of 1980, is an essential element of the University's research and public service missions and a tangible return on the public investment in research. In short, technology transfer

represents a modern manifestation of one of the founding principles of land-grant universities.

Commercialization of University-based technologies, if done well, also can provide a flexible revenue stream to support the University's tripartite mission of education, research, and outreach. While the University boasts a strong technology transfer history, recent assessments suggest that new approaches to commercialization are necessary to remain competitive, enhance performance, and optimize return on investment.

After a comprehensive review and analysis over the past year, the University launched a reorganized and restructured technology transfer program, the Office for Technology Commercialization (OTC). Changes in the program offer numerous benefits to researchers and the University:

- Improved connections between OTC and University researchers

- Improved conversion of innovations to beneficial applications

- Improved responsiveness to internal and external stakeholders

- Timely, critical decision-making

- Implementation of proactive marketing strategies

- Availability of internal funding to support further development of promising technology and early stage start-ups

- Support of the University's mission and strategic positioning goals

Corporate relations

The new Academic and Corporate Relations Center (ACRC) is charged with nurturing and managing effective partnerships with local industries; enhancing accessibility to University faculty, students, and resources; and identifying opportunities for research collaborations.
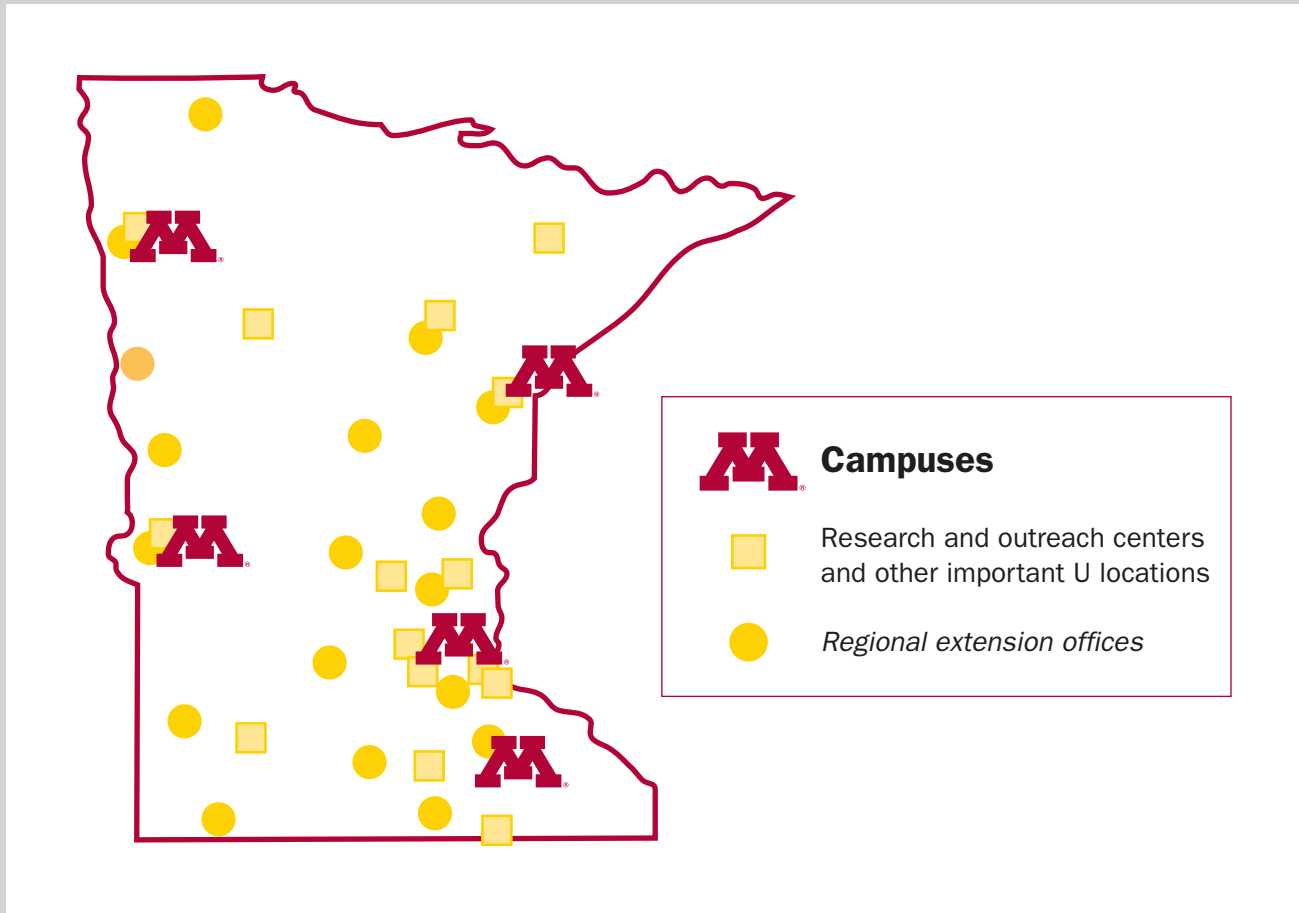
Spotlight 17: The U's Statewide Agenda

Figure 5: Statewide Engagement

With five campuses and more than 30 research and outreach centers, regional Extension offices, and other critical locations statewide, the University's impact and agenda extend well beyond the Twin Cities.

The **University of Minnesota Rochester** (UMR), for example, is expanding its academic footprint to meet the education and research needs of southeast Minnesota. This expansion builds upon our long-standing partnership with Mayo Clinic, as well as our relationships with Rochester Community and Technical College and Winona State University.

The **University of Minnesota Crookston** (UMC) recently received the maximum 10-year accreditation from the Higher Learning Commission. UMC continues to lead the system in online education, meeting the needs of traditional and nontraditional students statewide with countless technology-enhanced courses and three complete degree programs offered via the Internet.

Our regional comprehensive university on the North Shore, the **University of Minnesota Duluth** (UMD), continues its leadership in environmental research and many other fields of study. UMD's Sieur Du Luth Summer Arts Festival has become internationally known for its opera program, with 120 international participants registered this year from Europe, Asia, and Mexico. And this year, UMD launched a doctoral degree in education and welcomed Distinguished McKnight University Professor Robert Hecky to Large Lakes Observatory.

To the west, the **University of Minnesota Morris** (UMM) provides a public alternative for students who seek a liberal-arts education in a diverse and engaged community with a campus and research center devoted to leadership in renewable energy. Last fall, UMM's Center for Small Towns and the city of Morris won a national Carter Center Partnership Award for Campus-Community Collaboration.

The ACRC grew out of recommendations from the Itasca Project, an employer-led consortium that, as one of its prime objectives, fundamentally transformed the way the University and local businesses interact in the interest of economic development. A survey of Minnesota companies, which served as a guide to the development of services to be offered by the ACRC, identified the following as high-priority resources valued by responding companies:

- Access to our students and graduates

- Access to continuing education opportunities

- Access to faculty expertise, centers, and institutes

- Sponsored research opportunities

- Intellectual property/technology commercialization

To enhance access to these important resources and to facilitate navigation through the complex organization that is the University, the vice president for research created the ACRC to serve as a single point of entry. The ACRC offers:

- Concierge services to help corporate partners access resources and expertise across the University

- An easy-to-navigate Web interface that serves as a front door to the University for businesses of any size, whatever their needs

- Relationship managers who help assigned corporate partners with their particular projects and interests

During its first year of operation, the ACRC forged new University-industry partnerships that netted over $2 million in new resources for the University, not to mention the new collaborations they encouraged and the tremendous goodwill they have generated throughout the business community. For more information on the ACRC and its successes, visit **http://www.business .umn.edu**.

The biosciences in Minnesota

The University is actively partnering with leaders from Minnesota's strong bioscience community to leverage strengths and jointly develop and implement a plan for the future of biosciences in the state. Minnesota has long been a world leader in biosciences, primarily in medical devices and the health industry, and much of the technology that supports this sector has come from the University. Minnesota is now presented with new opportunities to become a world leader in industrial and agricultural applications, while further enhancing its world position in devices and health technology.

This plan for the future will acknowledge the University's historic, ongoing, and essential role in providing new knowledge and innovation from its broad research base in health sciences, engineering, and the biological and social sciences. The University also commits to working with its partners to advance the biosciences and to generate public understanding of its benefits.

Public engagement

The Council on Public Engagement (COPE) was appointed to incorporate public engagement as a permanent and pervasive priority in teaching, learning, and research activities throughout the University and to enlist support for public engagement among all segments of the University and in the larger community. The Office of Public Engagement was created in 2005 to work with COPE to catalyze, facilitate, advocate, coordinate, connect, communicate, and align initiatives across the University and with external constituencies.

The structure of COPE as a University-wide body and the positioning of the Office of Public Engagement as a systemwide unit put us at the forefront of our peer universities. Public engagement will contribute to our goal of being a top university by providing research and teaching opportunities that would not be available to a more insular institution, and by enabling the knowledge and capabilities of community partners to contribute to our scholarly mission.

The University's urban agenda

"The Twin Cities campus is committed to connecting the academic interests and programs of the University to the issues and resources of the metropolitan area, including the environment, transportation, infrastructure, education, health, and housing. We will do this by adapting our highly successful rural Research and Outreach Center model for use in urban communities, a model that emphasizes working collaboratively with and in the communities we serve."

—Senior Vice President Robert Jones

As an urban land-grant university we have a special, highly visible relationship with the communities near the Twin Cities campus and other urban areas. The Board of Regents Mission Statement has long included a clear articulation of the University's commitment to serve the common good and develop human capital:

> "Outreach and Public Service: To extend, apply, and exchange knowledge between the University and society *by applying scholarly expertise to community problems*, by helping organizations and individuals respond to their changing environments, and by making the knowledge and resources created and preserved by the University accessible to the citizens of the state, the nation, and the world" *(emphasis added)*.

Strategic positioning provides an opportunity to modernize and revitalize our land-grant mission and strengthen our vision of improving the human condition through the advancement of knowledge. In today's complex and changing world, our mission must be aligned with the needs of our growing urban population and those at the urban-rural interface.

The University Northside Partnership (UNP) is a pilot opportunity to develop sustainable engagement with multiple metro partners. The UNP will initially focus on three broad initiatives that support the critical goals of building human capacity, strengthening communities, and promoting urban health.

More recently, the University's Consortium for Metropolitan Studies was established to link the centers, programs, and faculty and staff at the University engaged in teaching, research, and outreach concerned with understanding metropolitan change and development. The consortium's mission is to enhance and extend current programs and strengthen connections to those individuals, communities, and activities in Minnesota, the region, and the nation who are working with urban issues. For more information, see PreK-12 & Urban Initiatives at **http://academic.umn.edu/system /prek12**.

Extension programming and reorganization

Extension implemented a major reorganization in January 2004 in order to respond to changing societal needs and enhance efficiency. The successful redesign into regional centers has resulted in the movement away from the old model of having an Extension agent in each of our 87 counties to the development and staffing of 18 comprehensive regional Extension centers throughout the state. Regional center programs provide research-based education and consulting in agriculture, food and nutrition, environment and natural resources, and economic opportunity and quality of life.

Often regarded as the University's outreach arm for rural areas, many Extension programs are tailored specifically to urban participants, programs such as the Family Formation Project, which serves urban, unmarried new-parent couples seeking to form a stable family. Another example is RentWise, which helps individuals at-risk for housing problems develop the life skills to find and maintain an affordable rental unit, build successful business relationships with landlords, and develop positive rental histories.

Community partnerships for health

The Academic Health Center and its schools and colleges have partnered with communities and regions to establish programs that meet their needs while providing education and training opportunities for health professional students. These partnerships, in which all parties share in the financial risks and opportunities, also increase program efficiency and reduce costs. This partnership strategy has enabled the AHC to launch a number of Greater Minnesota programs over the last four years, including:

- **The Minnesota Area Health Education Center** (AHEC) program, which will support four regional AHECs across Minnesota to nurture an interest in health professions among youth, to support professional and interprofessional education for health professions students, to support community-based faculty and other health professionals in greater Minnesota through continuing education, and to assist communities in identifying and addressing unique community health and health workforce needs.

- **The Hibbing Dental Clinic**, a joint undertaking of the School of Dentistry and Hibbing Community College, to provide learning and training opportunities for dental and dental hygiene students while addressing the dental needs of underserved members of the community.

- **A new dental clinic in Willmar** to provide similar opportunities and experiences for dental and dental hygiene students and to help meet the dental care needs of that community.

Strategic resource development

The Office of the Vice President for Statewide Strategic Resource Development (SSRD) is anchored in the University of Minnesota's role in—and responsibility for—economic development. Priorities within SSRD are key components to achieving the University's strategic goal and include:

Spotlight 18: UMore Park

In December 2006, the Board of Regents voted unanimously to pursue concept master planning on the 12-square-mile, University-owned parcel of land in Dakota County known as the University of Minnesota Outreach, Research, and Education (UMORE) Park, with the goal of transforming the property into a unique, vibrant, intellectually and culturally rich, sustainable community. This new community will provide:

- A unique and lasting University legacy of discovery and research-based education that helps to sustain people and communities in the region over the generations

- A vital regional economy that is characterized by enriched communities, thriving businesses, and educational, social, and natural amenities

- An attractive locale to live in, work in, and visit that incorporates University research and education to achieve quality of life, innovation, a sense of place, close connection with the natural environment, and sustainability

- A growing University endowment that supports the academic mission in perpetuity

Developed over 25 years, the community will ultimately include residential, retail, and industrial areas and significant amounts of green space. Hallmarks of the University's academic mission to be incorporated into the community include integrated elements of education, health, energy, environment, transportation, and interdisciplinary expertise. For more information, visit **http://www.umorepark .umn.edu**.

- Oversight and management of real estate assets, with emphasis on UMore Park (see Spotlight 18)

- Support of technology commercialization

- Fostering of economic development opportunities and public engagement

The goal of these activities is to enhance relationships across the public and private sector and increase understanding of the contributions of the state's sole research university.

The UMore Park management team has made significant process since passage of the December 2006 Board of

Regents resolution in support of the project. The team is actively engaged in:

- **Advancing the academic mission.** Six academic mission task forces have been charged to anchor a new, sustainable community on the UMore Park property in line with the University's land-grant mission of research, education and public engagement. More specifically, the charge is to develop creative approaches that will ensure that education, health, energy, the environment, transportation and infrastructure, technology, arts and culture, and civic life, among other priorities, are incorporated into the core identity of the new community to benefit the University; its faculty, staff, and students; and citizens of the new community and the broader region.

- **Comprehensive planning with local jurisdictions.** The UMore Park management team meets regularly with representatives of Dakota County, the city of Rosemount, and Empire Township to ensure efficient, effective collaboration without duplication of efforts. UMore Park concept master plan elements will be incorporated into the updated city of Rosemount comprehensive plan for the Metropolitan Council, due in December 2008.

- **Joint management with Department of Natural Resources.** A mandated report to the state legislature called "Creating Common Ground" describes the cooperative management of a 2,822-acre parcel of the UMore Park property by the University and the DNR. The report also addresses short- and longer-term programmatic plans for development of the land. The jointly managed parcel has been renamed as Vermillion Highlands: A Research, Recreation, and Wildlife Management Area. Discussions to date have focused on overall long-term planning that maximizes partner strengths in research, education, trails and recreation, and wildlife management and hunting. Charles Muscoplat, vice president for statewide strategic resource development, and Al Sullivan, special assistant to the president, represent the University on the joint management team.

COORDINATE CAMPUSES

The University of Minnesota's statewide network of coordinate campuses, regional Extension offices, and research and outreach centers constitute one of the University's greatest strengths. Our coordinate campuses defined campus-specific visions of excellence in support of the University's strategic goal.

University of Minnesota Crookston

The University of Minnesota Crookston (UMC) has established a vision for its future as an innovative, competitive, and culturally transformed campus known for its exceptional undergraduate experience and for the unparalleled value it creates for the region. The campus strives to be distinctive, and at the same time, firmly aligned with the University's core purposes. UMC will be known for graduates who are recognized for their superior technology and communication skills, strong leadership potential, and the ability not just to get a job, but also to create jobs for the region and the state.

UMC will accomplish these goals through:

- **Exceptional undergraduate education**. UMC is working to calculate how many students its physical plant can accommodate and develop a time-certain plan to reach that capacity. Specific, program-by-program goals and strategies to increase new high school (NHS) and new advanced standing (NAS) recruitment, year-to-year retention, and graduation rates will be developed.

UMC must expand its choice of degree programs to attract more students and retain them for four years. New programs should:

– Be mission driven
– Meet demonstrable student and employer demand
– Leverage existing strengths and capacities
– Be based on solid cost/benefit estimates
– Have an exit strategy.

Recruiting more international students presents an opportunity for the Crookston campus to simultaneously attract a larger and more diverse student body, and potentially contribute to the region's economic development by attracting talented students and faculty from around the world. UMC will also focus on preparing all students to succeed in a global marketplace.

A unique commitment to experiential learning differentiates UMC from its peers by adding quality to the curriculum and value to the undergraduate experience. UMC students gain valuable "real world" experience to complement experiential learning opportunities embedded in the regular curriculum. Internship and service learning programs are strong and should remain so. A campuswide emphasis on undergraduate research is consistent with the University's research goal and the campus's commitment to experiential learning. It also underscores the need to increase support for faculty research. Interdisciplinary, collaborative research of the kind envisioned by the Center for Sustainable Development is a campus priority.

- **An exceptional organization**. Moving forward requires strong and steady leadership, consistency in both message and action, and long-term commitment to core values. Broad dialogue is necessary to ensure a shared expectation for change. In its traditional service area of nearby counties, many perceive UMC as offering a limited portfolio of technical programs, consistent with the mission of the campus 20 years ago. Strategic positioning offers an ideal opportunity for UMC to redefine itself and craft a message for the future that firmly aligns UMC with the University system brand, Driven to Discover™.

The University of Minnesota system is rightly known as the economic engine of the state, but personal income in northwestern counties lags behind the metro area and the gap is growing. As the system's most important and visible presence in the region, the Crookston campus should resolve to be and be seen as an economic engine for northwest Minnesota. UMC should strengthen its presence as the regional hub of activity for creative talent of all kinds—teachers and scientists, entrepreneurs and business builders, social service providers, and community leaders.

For more on UMC's transformation, visit **www.academic.umn.edu/crookston_strategic /index.html**.

University of Minnesota Duluth

The University of Minnesota Duluth (UMD) serves northeastern Minnesota, the state, and the nation as a medium-sized, broad-based university dedicated to excellence in all its programs and operations. As a university community in which knowledge is sought as well as taught, its faculty recognizes the importance of scholarship and service, the intrinsic value of research, and the significance of a primary commitment to quality instruction.

Central to the mission of UMD is high quality teaching nurtured by the research and artistic efforts of its faculty. This undergraduate focus is not at the exclusion of graduate programs, but with the keen expectation that UMD's selected graduate and professional programs will support its mission and the undergraduate learning experience. Further, UMD acknowledges its Sea Grant designation and obligations to the history of the land-grant university. UMD values and provides an inclusive, diverse community, with special emphasis on American Indian education.

The programmatic focus of UMD is on the core liberal arts and sciences, maintaining a strong commitment to professional programs in the sciences and engineering, the arts, business, education, and medicine. Defined future development will include strengthening the core liberal arts and sciences, K-12 professional development in education, and strengthened relationships with regional and Iron Range community colleges.

Ultimately, UMD's challenge is to provide innovative solutions to the issues challenging the future of Northeastern Minnesota, to make a difference in the lives of people in this state and elsewhere, and to contribute meaningfully to the qualify of life through improving public policy and finding solutions to the problems that impact our lives. To do these things, UMD must provide:

- **Exceptional undergraduate education** by building on current strengths in academic programs and considering selected new programs. To improve the quality of the undergraduate experience and continue to improve retention and graduation rates, UMD will:

  – Continue to assess academic advising, identify strengths and weaknesses in the advising programs in order to implement best practices leading to increased retention and student satisfaction.

  – Nurture quality teaching and continue to emphasize undergraduate research and scholarly effort.

  – Add facilities for classrooms, laboratories, and offices to meet increased enrollment demand.

  – Fully integrate ePortfolio and implement the Grad Planner to assist students with degree planning.

  – Strengthen faculty engagement with students by increasing funding for smaller freshman classes.

  – Continue efforts to recruit and retain more honors students.

  – Increase student participation in study abroad experiences and develop a plan for managed growth of study abroad programs.

  – Engage parents as partners in our recruitment and retention efforts.

  – Address the issue of underprepared students in freshman-level courses.

- **Exceptional graduate education** by taking steps to recruit excellent graduate students and to increase enrollment in under-enrolled graduate programs. These steps include:

  – Establishing "best size" enrollment goals for each graduate program

  – Developing program-specific recruitment activities

  – Launching a campaign to publicize UMD graduate education

– Increasing graduate teaching and research assistant stipends in order to be competitive with those at comparable institutions and to develop new sources for external and private funding for scholarships and fellowships

– Developing and supporting new graduate degrees, such as the Ed.D., as well as a proposed multi-campus Ph.D. program in integrated biosciences

UMD also will take steps to recruit and retain more students, faculty, and staff from underrepresented groups, giving special emphasis to Native American students, international students, and non-native English speakers. UMD will also develop colloquia that enhance cultural competence among students, faculty, and staff. In addition, UMD seeks to strengthen its relationships with the Tribal Colleges to facilitate partnerships and student recruitment and off-campus degree delivery. Finally, capital funding will be requested to create an American Indian Learning Resource Center.

• **An exceptional organization**, including increased availability and use of technology to serve students and to support the research enterprise. Plans are in place to upgrade the campus data network and computer systems, and to develop high-technology classrooms in the Labovitz School of Business and Economics building. Faculty training in the use of technology in the classroom continued in January 2007 with the 10th round of Tech Camp, a weeklong hands-on program held designed to enhance the technology skills of faculty. To date, approximately 180 faculty have benefited from this experience. UMD proposes to enhance student learning, research, and writing by creating a state-of-the-art information commons to combine library resources, technology, and student services.

• **Exceptional innovation** through research and partnerships. UMD will continue to focus on those areas for which the campus holds a national reputation or satisfies a regional need, while at the same time selectively developing new areas of research, scholarship, and artistic activity. Areas of research emphasis include:

– Water resources (Center for Water and Environment, Large Lakes Observatory, physical and biological sciences in the College of Science and Engineering)

– American Indian research and education (College of Education and Human Service Professions, College of Liberal Arts)

– Interdisciplinary programs in biosciences (College of Science and Engineering, Duluth Medical School, College of Pharmacy)

UMD will work to facilitate the active participation of UMD faculty and staff in presidential initiatives and other system programs. UMD faculty and research staff will also be encouraged to become part of a systemwide research expertise database and to serve on University research committees. UMD will work to secure appropriate recognition for faculty achievements in research and scholarship and seek to host more national and international conferences, workshops, and seminars.

UMD will continue to service the region and the state in the area of economic development (Natural Resource Research Institute, Center for Economic Development, Bureau of Business and Economic Research). Faculty hiring will be encouraged in areas that overlap UMD strengths, and additional resources should be provided to those productive areas. Faced with a decline in federal research dollars, UMD seeks to develop alternative funding sources for research and creative activities.

UMD has a long and rich history of partnering with public and private organizations to serve the campus and the state. One of the key partnerships is with school districts and other preK-12 organizations and

educators. The campus is currently collaborating with local school districts to enhance and coordinate professional development for teachers, and is evaluating and redesigning its teacher preparation programs. In partnership with tribal and community colleges UMD is expanding its preK-12 initiatives by developing alternative teacher education models to serve Native American populations.

University of Minnesota Morris

The strategic plan of the University of Minnesota Morris (UMM) builds on its national reputation as a top five public liberal arts college* and as a leader in environmental and sustainability issues. UMM provides an undergraduate liberal arts education of uncompromising rigor for a diverse student body. UMM is committed to outstanding teaching and learning, research, genuine outreach and engagement, and diversity. UMM's residential academic setting fosters authentic relationships, and the University serves as an educational and cultural resource for the region, nation, and world. A personalized educational experience prepares graduates to be global citizens who are inter-culturally competent, civically engaged, and effective stewards of their environments.

The student-centered goals of our strategic plan build on the exceptionally high participation rates and success of our students in:

- Study abroad
- Research and creative activities (including publications and presentations)
- Service learning
- Civic engagement
- Leadership experiences
- Cocurricular activities
- Graduate and professional study

UMM intends to build on the strengths articulated above and to position itself in the top tier of national liberal arts colleges. To reach this vision and ensure relevance in the 21st century, UMM will pursue:

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* *U.S. New and World Report,* 2006 rankings.

- **Exceptional undergraduate education** by enhancing academic programming and student support, as well as by investing in recruitment and marketing, increased scholarship funding, and improved retention. UMM will:

  – Develop a cohesive, yearlong First Year Experience.

  – Create the Academic Center for Enrichment to better align services and provide opportunities for all students to participate in activities to enrich academics, research, and outreach in a personally engaging community environment.

  – Increase our system-leading participation rates in study abroad and undergraduate research.

  – Enhance and document participation in service learning and leadership opportunities.

  – Expand the Undergraduate Research Symposium and the Undergraduate Research Opportunities Program, and improve the Morris Academic Partner and Morris Student Administrative Fellowship programs.

  – Increase student participation and success in national scholarship competitions.

  – Increase available scholarship and student research funds to attract high-ability students through targeted fundraising efforts.

  – Build upon our diverse student population and prepare for the changing student demographics within the state of Minnesota.

  – Continue our legacy of high enrollment (highest in the system) of American Indian students, and ensure adequate support to retain and graduate these students.

  – Increase the percentage of students from outside Minnesota from 13 to 25 percent, including more international students.

  – Increase first-year retention from 86 to 90 percent and second-year retention from 77 to 85 percent.

– Increase the four-year graduation rate from 40 to 60 percent, the five-year rate from 56 to 75 percent, and the six-year rate from 57 to 80 percent.

- **Exceptional faculty and staff**. The Morris campus has extraordinarily gifted and dedicated faculty and staff. To build upon this tradition of excellence, our goals are to:

  – Provide competitive compensation.

  – Increase support for faculty research and travel and encourage collaborative activity comparable to that of other top-tier liberal arts institutions.

  – Enhance recruitment and retention efforts by exploring joint appointments and other creative approaches to attract the highest caliber faculty.

  – Provide formal mentoring and professional development programs for all faculty and staff to enhance effectiveness and to help new faculty strengthen their teaching skills.

- **An exceptional organization** that enhances the student experience and better aligns faculty and staff resources with student enrollment and program needs. This will, in turn, result in better academic and student services as well as greater efficiency and resource utilization. UMM also is planning new investments in state-of-the-art, flexible-use facilities to enhance student recruitment, facilitate community building and cocurricular activities, and better connect the campus with the external community. To achieve these goals, UMM will:

  – Update the Campus Master Plan, including environmental and technological master plans.

  – Update residential life facilities to meet student expectations.

  – Place units that interact with external audiences in a renovated Community Services Building.

  – Renovate facilities, including the dining, conferencing, and library facilities to meet the needs of students and improve their experience.

– Offer facilities and grounds comparable to top-tier national liberal arts colleges.

– Complete the Humanities/Fine Arts complex to support our commitment as a regional cultural center.

- **Exceptional innovation**, including the development of academic infrastructure to further advance the UMM honors experience; increased support for faculty research, scholarship, and creative endeavor; and partnerships with other academic institutions and with government and research organizations. Specifically, UMM will:

  – Create the Academic Center for Enrichment to provide enhanced opportunities to build on our core values and increase visibility, participation, and program coordination.

  – Initiate an academic program to develop student leadership skills and formally recognize their accomplishments.

  – Add a digital institutional repository to achieve greater visibility for and national recognition of faculty research efforts and successes.

  – Encourage and facilitate greater faculty participation and success in external scholarly awards, honors, and grants.

  – Leverage our green campus initiatives and our energy research platform to become a model energy-self-sufficient campus through wind generation, biomass heating and cooling, and expanded use of "green" vehicles.

  – Aggressively pursue nontraditional revenue sources such as the wind farm initiative to generate energy for resale.

  – Provide innovative solutions to the economic, demographic, and energy challenges of west central Minnesota.

  – Build on our relationships with universities in China, South Korea, Japan, and other nations.

– Develop and expand partnerships with other campuses in the University system and entities such as the West Central Research and Outreach Center and the Office of Public Engagement.

– Enhance summer and break programs such as Summer Scholars, Henjum Institute for Creative Study, and Symposium on Small Towns to increase facility use and serve west central Minnesota.

– Incorporate civic engagement into teaching, learning, and research activities by providing opportunities for students to engage with regional communities through programs such as our existing K-12 Tutoring, Reading, Enabling Children (TREC) program.

– Enhance opportunities for lifelong learning for area residents.

For more on UMM's transformation, visit **http://www.morris.umn.edu/strategic**.

University of Minnesota Rochester

The strategic direction for University of Minnesota Rochester (UMR) is to become a distinctive campus of the University of Minnesota system, providing quality academic programming, research, and public engagement with emphasis in health sciences, technology, and related fields. This future will be realized by focusing on the needs of southeastern Minnesota and the strengths of its resources, especially public/private partnerships and collaborations with the Mayo Clinic, IBM, and other health care and high technology industries.

UMR is uniquely positioned for expansion into a distinctive campus with its own facilities and faculty. Rochester is home to internationally recognized institutions, including the Mayo Clinic, IBM, and more than 30 high technology businesses that contribute billions of dollars to the Minnesota economy in promising fields such as the biosciences and nanotechnology.

As the campus and academic programs are developed, public/private partnerships with these organizations will be sought to enhance opportunities for shared

facilities and faculty. Innovative relationships of this type will enhance the depth and breadth of efforts to develop collaborative academic programming and leading-edge instructional delivery systems. The strategic goals being undertaken by UMR support the University system's strategic goal, responding to regional and state constituent needs, developing strategic public/private education/research partnerships, effectively communicating the University's message, and accomplishing these outcomes in a financially responsible manner.

• **Exceptional undergraduate and graduate education**, in part by selecting undergraduate, graduate, and professional academic degree programs that closely match strengths and resources with the needs and resources of our partners and students. Academic degree programs have been selected and are in various stages of development and implementation. For example, in fall 2006 the master of health care administration program was implemented, and in fall 2007 the master of occupational therapy and bachelor in clinical laboratory science programs will be operational in Rochester.

The Center for Allied Health Programs has been established as a degree-granting unit of the University. This new unit is studying the potential for converting bachelor of applied science programs in respiratory care and radiation therapy into bachelor of science degrees and has other innovative plans under development.

The Institute of Technology and the College of Biological Sciences on the Twin Cities campus, along with UMR, are considering proposing a similar, collaborative degree-granting unit for the areas of biomedical informatics and quantitative and computational studies in the life sciences, with a goal of establishing new academic programming in these areas by fall 2008. These signature programs will rely heavily upon research and teaching partnerships with IBM, the Mayo Clinic, and the University of Minnesota Hormel Institute. In addition, UMR is exploring academic partnerships within and outside

of the University of Minnesota system that have the potential to provide liberal education electives at UMR.

- **Exceptional faculty**, including the faculty from both the Twin Cities and Duluth campuses who have been providing and will continue to provide teaching and research services for UMR, as well as joint resident faculty to be appointed from collaborating organizations. With system-level support from the University, plans are being developed for increasing the number of on-site faculty in Rochester as of fall 2007. It is expected that these faculty will serve in both the health sciences and biotechnology areas. As additional academic programs and research initiatives are established, the number of Rochester-based faculty will also grow.

- **An exceptional organization**, including innovative organizational, financing, and administrative structures. A set of working principles describing the roles, responsibilities, and accountabilities of leaders, faculty, and staff from UMR, other University of Minnesota system campuses, and non-University partners has been developed and is under review by the UMR Executive Steering Committee.

It is also imperative to establish a financial model to support the growth of the campus. Thanks to collaborative initiatives, especially among the Greater Rochester Advocates for Universities and Colleges (GRAUC), community and political leaders, state legislative leaders, and the University, state funding has been secured to support initial growth in academic programs and facilities. UMR and system leaders will continue to review financial scenarios that reflect the direction of UMR growth, and to develop comprehensive plans for obtaining additional short- and long-term funding.

There are ongoing discussions with public/private organizations to explore opportunities for long-term shared space. As academic programming and research initiatives grow, UMR will continue to pursue opportunities for collaboration in the use of space for instruction and research.

The UMR Campus Master Plan Committee, chaired by Vice President Kathleen O'Brien, has engaged with community leaders representing city, county, economic development board, Rochester Downtown Alliance, community action groups, and local businesses in the master planning process to guide the development of the UMR campus.

- **Exceptional innovation** through research and partnerships. One of the most critical, powerful, and dramatic trends in southeastern Minnesota is the growth in investments in bioscience and technology collaborations. This growth represents a confluence of efforts, primarily among the University, Mayo Clinic, and IBM. Business leaders are working to define ways to capture and build upon state-of-the-art technologies in Rochester, and they envision the University having a major role to play in advancing the education, science, and application of these initiatives.

By its very nature, UMR will break new ground in establishing research, education, business, and technology transfer partnerships. To facilitate these relationships, the UMR Academic and Corporate Relations Center (ACRC) has been established to identify high potential ventures and bring together action teams to focus on and accelerate efforts in a variety of technology and biosciences fields. The ACRC is affiliated with the Twin Cities campus through a joint administrative reporting agreement between the Twin Cities Office of Academic and Corporate Relations and UMR. By combining the Twin Cities campus and UMR units, the University is better able to provide coverage for the state, with the Rochester-based relationship officer working primarily with businesses in southern Minnesota and the Twin Cities officers covering other parts of the state.

CONCLUSION

"Great organizations measure what they value."

—President Robert H. Bruininks

The University of Minnesota aspires to be a community with a deep and abiding commitment to excellence in research and discovery, teaching and learning, and public outreach and civic engagement. Transformational change requires information-rich, disciplined, and bold decision-making. In setting academic priorities, it is important to focus on quality as the most important measure, along with how each program relates to the mission of the University; whether we have a comparative or unique advantage by supporting or enhancing particular programs; and how academic synergies might be enhanced.

The stated goal of strategic positioning is to become one of the top three public research universities in the world while achieving an equivalent standard of excellence for our coordinate campuses. The four pillars of strategic positioning support the weight of this mission, so that if any one pillar crumbles, the entire structure is diminished. Nor can we strengthen any one pillar at the expense of the others. Our 35 task forces were not formed and charged in isolation; all of the parts work together to move the entire University system forward. We must continue to set aggressive goals in critical areas of responsibility and to measure what we value.

Strengthening Accountability

The ability to assess and measure our progress is fundamental to building on the University's historic accountability and achieving the goal of becoming a top-three public research university. We cannot expect the levels of state and private investment we require to reach that goal without continued self-scrutiny and reform. We must strive not simply to align our policies and investments with our priorities but to also continually reassess those priorities to ensure that they remain the right ones.

This requires a new emphasis on metrics that looks beyond typical measures used to determine popular college and university rankings to specific indicators that track those aspects of the University that are mission-critical and distinctive. The University's Metrics and Measures Task Force and others are currently working to identify these critical indicators in every unit of the University. These indicators, combined with standard measures such as enrollment and class size, will paint a detailed picture of the University and its progress.

The lists below represent initial categories of metrics that cover the breadth of the our operations and provide the basis for tracking our progress toward strengthening the University of Minnesota:

- **Exceptional Students**

  – Student quality
  – Student diversity
  – Affordability
  – Student outcomes
  – International involvement
  – Student public engagement activities
  – Student satisfaction

- **Exceptional Organization**

  – Financial strength
  – Facilities condition

- **Exceptional Faculty and Staff**

  – National Academy members
  – Faculty awards
  – Post-doctoral appointees
  – Faculty and staff diversity
  – Faculty salary and compensation
  – Faculty satisfaction
  – Staff satisfaction

- **Exceptional Innovation**

  – Library quality
  – Research expenditures
  – Citizen satisfaction
  – Intellectual property commercialization

Many of these 20 indicators have multiple specific supporting measures. We currently monitor the "University 20" and will begin highlighting additional critical indicators and progress in the annual University performance report, Accountable to U, and other key communications going forward. It is critically important that we share with all our constituents the ways in which our actions relate to other University initiatives and the overall goal.

Ten-Year Vision

Our view of a transformation can't be "the same, only more so." Instead we must take what is distinctive to the University of Minnesota and use it as the foundation for an evolving, responsive University system.

- **Imagine a distinctive University** that emphasizes its own strengths and those of the state of Minnesota to attract the best-prepared and brightest students, faculty, and staff from around the world.

- **Imagine an agile University**, with flexible structures, systems, and processes that enable rapid response to new opportunities and changing problems.

- **Imagine an expanding University**, with state-of-the-art research facilities and infrastructure that enable us to proactively recruit from peer institutions and even the private sector.

- **Imagine an engaged University**, fostering strong collaborative relationships with the state, federal funding organizations, industry, and donors, all of whom view the University first and foremost as a resource—and as such, worth protecting.

We'll know we're successful when the University warrants serious consideration in any conversation regarding excellence in public higher education—and when our various stakeholders tell our story as well as, or better than, we do.

ADDITIONAL RESOURCES

The Transforming the U initiative is a broad and sweeping effort that touches upon every aspect of the University's operations. In addition to the many references cited throughout this document, you may wish to consult the following resources to learn more about the University's strategic plans and direction:

• The Transforming the U Web site, which includes an archive of all task force recommendations, plus a timeline and links to related stories and resources. It can be found at **http://umn.edu/systemwide /strategic_positioning**.

• The Office of the Senior Vice President for Academic Affairs and Provost Web page, which includes links to a wide range of reports, updates, and announcements related to Transforming the U academic initiatives. It can be found at **http://www.academic.umn.edu /provost**.

• Selected speeches and related content on the Office of the President Web site at **http://www.umn.edu /pres**.

• The 2006 Transforming the U Progress Report, which can be downloaded from the Transforming the U Web site or requested in hard-copy format by contacting upres@umn.edu or 612-626-1616.

ACKNOWLEDGEMENTS

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The University of Minnesota is committed
to the policy that all persons shall have
equal access to its programs, facilities and
employment without regard to race, color,
creed, religion, national origin, sex, age,
marital status, disability, public assistance
status, veteran status, or sexual orientation.