

UNIVERSITY OF MINNESOTA

The Graduate School

Report of Changes
2005 to 2008

Gail Dubrow
Vice Provost and Dean
321 Johnston Hall
101 Pleasant Street S.E.
Minneapolis, MN 55455

DRAFT
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Executive Summary

Gail Dubrow's appointment as Vice Provost and Dean of the Graduate School at the University of Minnesota in August 2005 coincided with a moment of transition for public research universities, particularly in the arena of graduate education.

Entry into the 21st century found U.S. graduate schools shaken out of decades of complacency as the relatively stable landscape of higher education—highly subsidized by a long-term flow of international applicants to the United States, as well as federal and state support—gave way to more challenging conditions, characterized by intense global competition to recruit the top graduate students, less-than-favorable national policies affecting international applicants, reduced state support for public research universities, and increased competition for critical research dollars. Deans of graduate schools could no longer rely on past practices to guarantee the flow of excellent applicants into their institutions, nor could they assume that sufficient funding existed to carry students to degree completion.

Rising critiques of graduate education from within the higher education community and from allies in the philanthropic sector presented a second set of challenges for the leadership of graduate schools. While the U.S. system of graduate education had been the envy of the world and new graduate schools in China, Korea, Australia, and elsewhere were now being established in its image, systemic problems in the U.S. model of doctoral education were becoming clear. As a result, new attention was focused on reducing time to degree and raising completion rates for doctoral students, developing multiyear packages of financial support to improve institutional competitiveness and degree progress, and moving beyond the narrow, specialized training that has come to characterize graduate education while attempting to prepare today's students to solve increasingly complex intellectual and societal problems that cross disciplinary boundaries.

At the campus level, financial pressures led to serious debates at several universities about the value added by centralized graduate schools. Some were abolished and their resources redistributed to the colleges, with little in the way of a central quality control function remaining. At the University of Minnesota, this debate occurred in the context of a strategic positioning initiative intended to reorganize collegiate units to maximize intellectual synergies and to identify the intellectual priorities for future investment.

Within this context, the following report describes the multiple dimensions of Dean Dubrow's three-year agenda, from August 2005 to August 2008, which shifted from (1) the immediate task of reestablishing the value of a central graduate school and stabilizing unresolved aspects of internal organizational arrangements; to (2) developing new initiatives that closely aligned the Graduate School with University-wide strategic priorities; and (3) establishing the University of Minnesota's Graduate School as a national leader in three critical areas closely aligned with the goals of strategic positioning: first, the reform of doctoral education, to improve the quality of academic programs as well as the graduate student experience; second, the advancement of interdisciplinary activity; and third, the development of an increasingly diverse student body across all fields of graduate education. The Graduate School's many constituents have worked enthusiastically over the past three years to accomplish this new agenda.

Redesigning Doctoral Education

- Overall, the University of Minnesota has fared no better or worse than its peers in establishing national norms on Ph.D. completion rates and time to degree, but the graduate education community has widely acknowledged the need to improve those rates, particularly in the humanities and social sciences. In 2005, the Graduate School began a comprehensive effort to identify those programs successful in reforming their doctoral programs to improve on these and other measures, and to spread their best practices by providing information and incentives across the University. Graduate School Block Grant Funds and other funds are being used to create incentives and rewards for programs that adopt best practices and show results in reducing time to degree and increasing completion rates. In 2006, the Graduate School began to lead the University's participation in the national Ph.D. Completion Project, with 15 programs in the pilot. Findings from this study guide the identification and dissemination of best practices.
- Since 2005, the Graduate School sharply stepped up its conduct of surveys to build institutional data on critical issues in graduate education. The Graduate School now surveys all doctoral graduates, supplementing the national Survey of Earned Doctorates; collaborates with the University Foundation on a new method of extensive data gathering on career outcomes of Ph.D. alumni of the past 50 years; and is playing a lead role in a national data exchange to establish standard questions for surveys of graduate and professional students. The goals of increased data collection are accountability for achieving progress toward established benchmarks and data-driven decision-making in matters of investment, right-sizing programs, and related issues.
- Financial support was identified as a major problem for the Graduate School in 2004, and central administration immediately responded by increasing its investment in block grants and fellowships. Since then, block grants to excellent programs have become larger and are guaranteed for longer periods, and fellowships have gradually become longer, larger, and more competitive, from a modest number of two-year fellowships in 2004 to more than half of offers for three-year periods at higher levels in 2008. Yet this investment is able to provide multiyear offers for only 10 percent of those students admitted to the Graduate School each year, and only one-third of such offers are successful—despite the fact that a high number would prefer to come to Minnesota—because competing offers for the top students are so overwhelmingly strong. Continuing progress on providing adequate financial support to graduate programs and graduate students is among the top priorities of the Graduate School.
- By 2005, the Graduate School piloted a model of dissertation-writing support that increased the completion rate and reduced the time to degree of students of color. The Graduate School Writing Initiative, launched in 2007, now extends this support to all graduate students who need it. University offices and units that facilitate graduate students' writing have collaborated to create a process that ensures student access to intellectual support through degree completion. This is one of many reforms aimed at reducing time to degree and increasing completion rates of doctoral students.

- Increasingly, the creation of knowledge and research on critical problems requires collaboration across disciplinary boundaries. Yet dissertations and theses have long assumed individual research and scholarship as the model for producing original knowledge. In 2007-08, the Graduate School's governance committees deliberated about a new policy explicitly intended to allow collaboratively produced theses and dissertations. Four of the Graduate School's six Policy and Review Councils voted in favor of the policy, the implementation of which will begin in the 2008-09 academic year.
- Graduate students most commonly experience a sense of community at the program level and fail to identify with the University as a whole, get to know students in other programs, or participate in governance. Dean Dubrow has initiated several strategies to deepen graduate student involvement in governance, increase their involvement outside their programs, and gain a sense of community in the University as a whole. These initiatives range from encouraging student involvement in the Council of Graduate Students to building intellectual communities around issues of common concern to graduate students and faculty, both in the form of organizations (e.g., Graduate Groups) and interdisciplinary writing seminars.

Fostering Interdisciplinary Activity

- Interdisciplinary research and scholarship has a long history at the University of Minnesota, President Bruininks has made it a priority of his presidency, and the strategic positioning process affirmed its critical importance. A major change at the Graduate School since 2005 has been the creation and strengthening of a systemwide infrastructure to support it. It has been a significant priority of the Graduate School under Dean Dubrow's leadership.
- The Office of Interdisciplinary Initiatives (OII) was established in the Graduate School in 2006 to coordinate and staff implementation of major initiatives. The OII is gathering, managing, and sharing information, operating in the policy arena, and seeding best practices. In 2008, the OII launched the Collaborative Leadership Development Series, a professional development program to train faculty, staff, postdoctoral appointees, and graduate students in the collaborative skills necessary to work effectively across disciplines.
- The Network of Interdisciplinary Initiatives was established in 2007 under the auspices of the OII and is already a 250-member grassroots base among faculty, staff, and students for identifying critical issues and advocating for solutions to policy and practice issues around interdisciplinary activity. Recommendations of the NII's working groups, completed in June 2008, are poised for review and implementation during the 2008-09 academic year.
- The Graduate School played the lead role, beginning in 2007, in convening the Consortium on Fostering Interdisciplinary Inquiry—10 public and private U.S. universities now conducting ambitious self-studies in eight key areas, identifying barriers as well as best practices in interdisciplinary endeavors. Following a fall 2008 invitational meeting, membership in the consortium will be opened widely to institutions across the nation that agree to adopt known best practices. As a result of these efforts, the University of Minnesota

has leap-frogged beyond its public and private peers by developing an internal advocacy network, a supportive infrastructure for transformation, and an unparalleled international reputation for leadership in interdisciplinary activity. We are now regarded as the “go-to place” among research universities on issues of interdisciplinarity.

- The Graduate School has traditionally funded interdisciplinary programs that cross college lines and, once they become departments, moved them into college homes. Dean Dubrow initiated a series of workshops for the 2008-09 academic year to help faculty and staff in nearly 20 of these programs to develop strategic plans for their future that incorporate best practices in building robust intellectual communities and moving toward financial sustainability.
- The Graduate School collaborated with the Provost’s Interdisciplinary Team in developing a number of new policies, including one for University-wide centers, and hired a new associate dean in 2007 to take administrative leadership for the comprehensive review of research centers. Reviews of two University initiatives were undertaken for Senior Vice President Jones in the 2007-08 academic year. A list of proposed center reviews currently is being compiled for the 2008-09 and 2009-10 academic years.

Enhancing Diversity

- Before 2005, the Graduate School had laid a strong foundation for recruiting and retaining a diverse graduate student body. Since then, practices piloted by its Diversity Office have been expanded to all students in strategic efforts to reduce time to degree, raise completion rates, and better prepare the next generation of faculty, industry, non-profit, and public leaders.
- Before 2006, the University lacked a comprehensive means of tracking prospective graduate students. A new electronic prospect system developed by the Graduate School closed this gap and partners with academic programs in sharing information about prospects.
- In 2004, the Graduate School was part of a University-wide task force to develop a plan for strategic international recruitment. Since 2005, using the plan, the Graduate School has partnered with the Office of International Programs on recruitment publications and visits, with particularly promising results in China and India.
- Before 2005, admissions practices across the institution were inconsistent and departments isolated in addressing a broad range of challenges related to the goals of identifying highly talented and widely diverse applicants. Beginning in 2007, the Graduate School has led a major three-year project, Reexamining Graduate and Professional School Admissions Practices, with 20 volunteer departments as initial participants. As a result of the first year’s work, the Graduate School application has undergone a major revision to give academic programs better information for making strategic admissions decisions. An estimated 13,000 applicants will use it during the fall 2008 admission season. In the remaining two years of the

project, the process and forms used in departmental admissions will undergo a similar process of revision.

- Postdoctoral education and training have been a missing link in the pipeline to diversify the professoriate at the University and nationally. The University of Minnesota Postdoctoral Fellowship, established in 2006, collaborates with departments to bring diverse, interdisciplinary, publicly engaged prospective tenure-track faculty to the University of Minnesota. The first year of this program proved to be highly successful, and second-year recruits are outstanding. In addition, the Graduate School staff member assigned to the program has served as liaison to the Postdoctoral Association, for the first time bringing together all of the University's postdoctoral initiatives in one integrated and more highly visible program.

Promoting Collaboration Among Partners

- The Graduate School formed a direct partnership with the Office of Equity and Diversity to work on the Reexamining Graduate and Professional School Admissions Practices project and to realize Vice President and Vice Provost Barceló's vision for a new Equity and Diversity Research Institute.
- Over the past three years, the Graduate School's operations on the Duluth campus have stabilized and shifted focus from working out issues of cross-campus structure and protocol to restoring high levels of productivity, especially with respect to academic planning. Since 2007, two new doctoral programs—one in education, one in integrated biosciences—have been added that are based entirely or substantially at UMD. One of the most significant technical accomplishments is integrating Duluth, as well as Rochester, into the online admissions system. This single-enterprise system has updated both the image and functionality of graduate admissions on both coordinate campuses.
- The Graduate School has equitably managed and distributed public and private funds for many years but has never been considered a fund-raising entity. There was no concerted effort to build or steward those funds. The Graduate School hired its first development director in 2007, who is working in partnership with the University Foundation and development directors in the academic colleges to cooperatively advance funding for graduate education. The 21st Century Fund has been a key asset in the campaign to increase graduate fellowships; however, a new source of funding to support the matching component will be needed in the coming years.
- The period after the Graduate School and the Office of the Vice President for Research (OVPR) were separated in 2002 was one of inevitable strain as the long-joined units identified a division of labor for the institution. They continue to share several key staff members and engage in outstanding collaboration in key areas, most notably interdisciplinary endeavors and leadership. Highly cooperative staffing relationships form the basis for smooth functioning in these units.

- In collaboration with the OVPR and the Office of Human Resources, the Graduate School addressed long-standing low compensation rates for postdoctoral positions at the University of Minnesota. An analysis by college and department in 2005-06 led the University to raise the minimum rate significantly, with privately offered bridge funds from the Graduate School to some colleges, which resulted in a rise in postdoctoral appointee satisfaction, enhanced University ability to attract postdoctoral appointees, and better graduate student employability in assistantships. In a related endeavor, the Graduate School has worked with key deans to raise the wage rate for graduate teaching assistantships.
- The Graduate School has partnered with the Academic Health Center and the Office of the Vice President for Research to launch a new world-class Interdisciplinary Informatics Program, creating the necessary administrative umbrella for integrating related academic programs, expediting approval, and managing the resources needed to start this program.

Achieving Organizational Excellence

- Despite a loyal, experienced, highly skilled and trained staff, morale in 2005 was at low ebb due in large part to repeated efforts to close the Graduate School. Under Dean Dubrow's leadership, morale across the Graduate School has improved dramatically. Attention is being devoted to staff professional development, preparation for the certain transition of leading staff to retirement by cross-training existing staff, hiring senior staff into bridging positions, and identifying the competencies necessary for continuity, while redesigning future functions and positions within the Graduate School.
- The Graduate School's transformation from a process-oriented to a service-oriented organization has accelerated sharply since 2005, both in services to students as well as to departments and faculty. Technology has been adopted in ways that provide opportunities to analyze and improve basic processes and enhance fast, frequent, and personal contact. The multiple arenas in which digitization still is needed within the Graduate School cannot be overemphasized. Conversion projects hold a high priority in this administration, particularly those projects that have a very high number of transactions and high transaction costs that can be reduced through paperless processes.
- In 2002, the University of Minnesota was a national leader in implementing the online "ApplyYourself" program for Twin Cities applicants to the Graduate School, and improved functions have been added each year. Building on this early success, computing has been at the center of converting paper-based processes into digital ones—one of the most significant changes over the past three years. The Graduate School has won two Service and Process Improvement Fund (SPIF) grants to automate, first, graduate student degree management processes, and second, other paper-based processes, including the many fellowship competitions it administers. A vendor's system was adopted to allow students to submit theses electronically, bringing the University of Minnesota into line with the national movement toward electronic filing of theses and dissertations.

- The Graduate School for too long lacked a place at the table in the many discussions and working groups related to the University's strategic internal and external communications. A communication position was added in 2008 to help improve efficiency and effectiveness in this area, bringing the Graduate School into the mainstream of University communications, sharpening use of digital technology to transmit best practices, and supporting fund-raising and development efforts.
- The Graduate School has often found itself defending the status quo to avoid the risks associated with balancing the demands of many colleges and constituents. Under Dean Dubrow's leadership, a number of innovations on the practical and policy levels and movement toward data-driven decision making are demonstrating the capacity for flexibility and change. The Graduate School is working with other institutions to establish common metrics related to time to degree, completion rates, and other critical areas. Tracking measures for academic program reviews have been put into place. Capacity to survey stakeholders has been enhanced. Identifying early-adopter cluster groups to advance change has proven to be an effective strategy for implementing best practices within a decentralized system of delivery for graduate education.
- A new Graduate School constitution was adopted in 2002 that emphasized the crucial role of the 130+ directors of graduate studies, and new communication efforts began. Since 2005, these efforts have expanded with an emphasis on collaboration toward attaining excellence. At the same time, Dean Dubrow has utilized the governance committees of the Graduate School in unprecedented ways and to an extent not previously imagined to build support for a comprehensive vision of graduate education and to stimulate action toward goals and priorities. Faculty and student attendance at meetings and assemblies and DGS participation in policy debates has increased significantly. Examples of results include a co-directed Ph.D. program with a French university that serves as a model for other University graduate programs, a strengthened process for academic program reviews, and a highly inclusive budget and compact decision-making process. A plan for reopening the Graduate School's Constitution to another ambitious round of revisions in 2010-11 is part of a multiyear proposal for carrying out the reform of policies and practices in graduate education at the University of Minnesota.

Creating a Shared Vision for the Future

The first three years of Dean Dubrow's leadership have been dedicated to revitalizing the Graduate School, and the next three will be devoted to a visioning and implementation process that will thoroughly engage stakeholders in the University's graduate education community in developing and adopting effective strategies for achieving the goals of University strategic positioning across graduate education. Dean Dubrow has built the foundation for an open, comprehensive, and meaningful discussion among stakeholders that will identify the specific reforms needed in each unit to promote the twin goals of excellence and innovation, integrate best practices into the academic units where graduate education is delivered, and raise public visibility for the University of Minnesota's Graduate School as an engine of innovation and the model for graduate education in the 21st century.

The Graduate School

Report of Changes, 2005 to 2008

At the request of the Provost, the following report was prepared to examine changes in the Graduate School during the three-year period from August 2005 to August 2008. Primary data was provided by the directors of the Graduate School's seven units, professional staff members with detailed knowledge of changes over time as well as institutional context. The national and international framework and the vision going forward were developed by the dean. The director of communication drafted the report and coordinated the process.

The Changing Context for Leadership of Graduate Education

Gail Dubrow's August 2005 appointment as Vice Provost and Dean of the Graduate School at the University of Minnesota came at a moment of transition for public research universities, particularly with respect to the future of graduate education.

Shrinking state commitments to higher education intensified public universities' pursuit of diversified funding sources. Increased competitiveness for federal research dollars amplified national and international competition to recruit the world's best faculty and graduate students to secure a leading position in research, scholarly activity, and discovery. The dynamics of recruiting and retaining top faculty and students required increased institutional investment in competitive financial packages, not only for faculty, but also for graduate students in the form of multiyear fellowships. While the top private institutions have the support necessary to assemble multiyear recruitment offers to top students, public research universities found themselves scrambling to compete in this international market for talent, and after 9/11, they found themselves in the position of actively needing to recruit for international students who regarded Australia, Canada, China, India, and other locales as friendlier and more viable venues for advanced study, edging out the monopoly the United States had long held in the higher education marketplace. For the first time, U.S. graduate schools were pressed to take a proactive role both in fund-raising to assemble competitive fellowship packages and in international recruitment to ensure that the world's top students considered the University of Minnesota as a destination of choice for graduate education.

Finally, the overall climate of competitiveness demanded more active management of the large portfolio of academic programs offered by graduate schools to ensure accountability for the effective investment of scarce resources in academic programs of the highest quality, while supporting the development of emerging fields of knowledge. Entry into the 21st century found U.S. graduate schools shaken out of decades of complacency, as the relatively stable landscape of higher education in the late 20th century, highly subsidized by international applicants as well as federal and state support, gave way to increasing uncertainty about the future of graduate education in the national top public research universities, since they were positioned with limited

resources in a global market that included the incomparable endowments of the top private institutions.

If the international context of graduate education demanded more skillful leadership than in the past, rising critiques of graduate education from within higher education and its allies in the philanthropic community comprised a second set of challenges for those assuming the helm of graduate schools at the start of the new millennium. From the Carnegie and the Woodrow Wilson Foundations' critiques of the status quo in graduate education to clearly focused initiatives such as "Re-envisioning the Ph.D.," a series of projects pointed to national concerns about the cost, length, organization and structure, relevance, and purposes of doctoral education, particularly within the arts, humanities, and social sciences. As a consequence, new attention was focused within the graduate education community on reducing time to degree and raising completion rates, developing multiyear packages of financial support to improve institutional competitiveness and advance degree progress, providing enhanced preparation both for academic careers at a wide array of institutional types and professional positions outside of academe that benefit from the advanced training provided by doctoral education. The call for reform suggested movement beyond the narrow, specialized training that had come to characterize graduate education and instead to provide opportunities for cross-disciplinary collaboration in pursuit of new knowledge and the answers to complex problems. These critiques, grounded in studies of graduate student dissatisfaction, led to increased attention to the quality of the graduate student experience as well as the development of comparative measures across institutions. The past decade has been a period of unparalleled critical reflection and creative experimentation in the redesign of graduate education and the graduate student experience. While past leaders of graduate schools could focus most of their attention on internal issues such as academic program review, the allocation of Graduate School resources, and policies related to academic programs, millennial reforms have required a higher level of engagement with national initiatives, an attentiveness to measurement and metrics, and a period of experimentation in the redesign of doctoral education, in addition to heightened international recruitment, growing development activity, and all-funds financial planning to coordinate the various sources of fellowship awards for graduate students. Toward that end, the University of Minnesota has benefited from engagement with the Carnegie Initiative on the Doctorate, the Council of Graduate Schools' Ph.D. Completion Project, as well as related efforts in the realm of diversity.

The third and most immediate force shaping the challenges of graduate education is the local, campus context. Financial pressures across the landscape of public research universities have fueled serious debates about the value added by centralized graduate schools. At public research universities as robust as the University of Washington, University of Indiana, and University of Minnesota, questions have been raised during the past decade about whether the graduate schools should be dismantled and their resources distributed directly to the academic colleges; of the three, only Indiana followed through on closure. The organization of research administration and graduate education also varies at large public universities, ranging from unified operations to split administrative functions. At the University of Minnesota, the Graduate School was founded in 1905, and the role of vice president for research was formally added to the dean's portfolio in 1992. When Christine Maziar left the University in 2002, two interims were named: one as dean of the Graduate School and one as vice president for research. A permanent vice president for research arrived in early 2005. But, as the University's strategic planning process advanced, no one had the authority to begin undertaking a series of major

initiatives related to graduate education, as that position remained in the hands of an interim dean.

All of these issues were in play when Dean Dubrow assumed leadership of the University of Minnesota Graduate School in August 2005. Indeed, the decision to conduct a national search for a dean and vice provost signaled an end to the debate over Graduate School closure and an opportunity to fully clarify the division of labor and respective portfolios of the Office of the Vice President for Research and the Office of the Dean and Vice Provost of the Graduate School, offices and positions only recently restructured. The development of a new Vice Provost for Faculty and Academic Affairs shifted additional functions from the Graduate School to the Office of the Provost, particularly in relation to faculty appointments that formerly were managed by the dean of the Graduate School, and many aspects of faculty awards. Strains within the University system over the scope, mission, and relative autonomy of the Duluth campus with respect to graduate education presented an additional challenge for leadership of the Graduate School, as the UMD Chancellor's agenda to grow Duluth-based doctoral education, win autonomy from a systemwide graduate school, and control Duluth-related graduate school appointments conflicted with established central policies and practices. All of these organizational contexts would shape Dean Dubrow's tenure and inform the Graduate School's agenda in the period from 2005 to 2008.

Perhaps more importantly, Dean Dubrow assumed a leadership position with respect to graduate education at a time when the University of Minnesota was deeply engaged in a strategic positioning initiative intended to reorganize collegiate units to optimize intellectual synergies and to identify intellectual priorities for future investment. This systemwide exercise would have profound implications for the Graduate School as new areas of education, training, and research came into focus, resources were shifted from the weakest to the strongest and most promising programs, and the Graduate School was charged with new responsibility for collaboratively leading institutional efforts to foster interdisciplinary activity, a pervasive theme in strategic planning efforts. In addition, Dubrow assumed leadership at a time when the University's budget model shifted to a more extreme version of Responsibility-Centered Management, a development that required the establishment of proxies for collegiate use of central services. After considerable debate over the appropriate basis for the cost pool, a combination of graduate student and graduate faculty headcount defined each college's share of the Graduate School's cost pool. The new budget model brought an end to many partnerships that ran shared programs on an informal basis, such as the postdoctoral program, which sat at the intersection of three fiscal units. It also prompted a careful examination of the Graduate School's past practices of making broad investments in several favored colleges, investments that could not be justified on the basis of clearly articulated objectives or return on investment. In broad terms, the new budget model was an occasion for restructuring resources in ways that allowed all of its stakeholders more equitable access to resources on the basis of clearly defined criteria: individual excellence, program excellence, and the comparative quality of proposals submitted under publicized competitions utilizing scholarly peer-review processes, bringing to an end an era of broad discretionary investment on the part of the dean of the Graduate School. It also marked the beginning of routine surveying of stakeholders in the graduate education community to build consensus with regard to strategic and fiscal priorities. Past surveys indicate success in achieving a high degree of alignment.

This overview of the international, national, and local context that surrounded Dean Dubrow's arrival at University of Minnesota helps to explain the forces operating upon graduate

education and adds perspective to her three-year agenda. Over time, this agenda shifted from (1) the immediate task of reestablishing the value of a central graduate school and stabilizing unresolved aspects of internal organizational rearrangements to (2) developing new initiatives that closely aligned the Graduate School with University-wide strategic priorities in the areas of academic investment, systemic efficiency, and a culture of accountability and (3) establishing the University of Minnesota's Graduate School as a national leader in three critical areas: the reform of doctoral education, interdisciplinary activity, and diversity.

An Opening Agenda for the Graduate School

Gail Dubrow began her duties as vice provost and dean of the Graduate School in August 2005. The occasion of the Graduate School's centennial symposium in October—a scant few months after her arrival—provided an opportunity to engage members of the University's graduate education community in reflecting on the past while simultaneously imagining the future of graduate education. The symposium shifted the focus of the planned centennial celebration from the retrospective mode to an announcement of major initiatives in graduate education that would characterize her term of leadership: (1) re-imagining the scope, content, and purposes of the Ph.D. with an eye to innovation in the design of doctoral education; (2) identifying the changes in institutional policy and practice needed to foster interdisciplinary teaching, research, and training at the graduate level; and (3) diversifying the American intellect by opening graduate education to previously underrepresented groups. These themes aligned with broader goals brought forward in strategic positioning and were quickly followed with an ambitious agenda that the Graduate School's many constituents have worked enthusiastically over the past three years to advance.

The University has since made unprecedented investments in the Graduate School. In fiscal year 2005, centrally allocated funds in the Graduate School's budget totaled \$12,760,172; in fiscal year 2009, the amount will be \$20,484,127. This 61 percent increase in central funds speaks volumes to the University's commitment to the Graduate School's core mission. Decision-making on the investment of these resources has been open and collaborative, and Dean Dubrow has been a highly effective advocate in this domain as well as a frugal manager of available resources.

The following report describes specific initiatives during the past three years that reflect sustained effort to make progress on these three fronts. It also highlights key collaborations with collegiate units, describes progress in striving toward exceptional organization, and identifies critical needs and priorities for the coming period.

Innovation in the Design of Doctoral Education

Nationally, only a little more than half of those students who begin Ph.D.s complete them. In addition, excessive time to degree completion deprives students, institutions, and society of the much-needed knowledge and skills brought by successful doctorates. The University of Minnesota has fared no better or worse than the national norm in this regard, but it is a case where the entire system needs to be changed. Solving this problem is critical to

achieving excellence in graduate education and it is part of ensuring the efficient investment of scarce resources.

Under the leadership of the Graduate School, departments across the University are innovating to address problems in doctoral education, including reshaping financial packages to offer guarantees of multiyear support upon admission, reforming the curricula, and establishing new and more meaningful milestones to degree. In 2005, the Graduate School began a comprehensive effort to identify model programs and help to spread their best practices by providing information and incentives across the University. For example, the Graduate School's Block Grant Funds to graduate programs now stipulate that the programs move to fully support, through degree completion, every graduate student that they admit. Since well-supported students make more timely progress, this change supports the Graduate School's larger initiative to reduce time to degree and actively manage graduate enrollment. The Graduate School has also shifted a greater proportion of its funds to highly promising and top-rated graduate programs and extended the length of its funding allocations to three years for those with demonstrable excellence. These changes have aligned the Graduate School's resources with the University's strategic priorities.

Among the best strategies for advancing change in a highly decentralized and complex institution are voluntary projects that gather a cluster of programs receptive to innovation and provide them with opportunities for mutual information exchange, improved data to monitor progress, and modest financial incentives. This approach has been used repeatedly under Dean Dubrow's administration to make advances in the areas of diversity, departmental recruitment, admissions, interdisciplinary activity, as well as in fostering reduced time to degree and improved rates of doctoral completion.

Spring semester 2006 marked the first steps in gathering data for the Ph.D. Completion Project, an in-depth study of doctoral education led by the Council of Graduate Schools. This national project aims to produce comprehensive data on attrition from doctoral study and completion and to develop best practices. The Graduate School volunteered to participate, contributing its data to a study of yearly student cohorts in 15 programs piloting the Ph.D. Completion Project. The Graduate School now surveys all doctoral graduates, supplementing the national Survey of Earned Doctorates with the University's own detailed questions about satisfaction with the graduate experience and career plans. Both surveys will soon be Web-based for economy and speed of data recovery.

At the request of the Provost, the Graduate School and University Foundation now collaborate on a new method of gathering extensive data on career outcomes for Ph.D. alumni of the past 50 years. The Graduate School is also playing a lead role in the Association of American Universities Data Exchange to establish standard questions for a survey of doctoral alumni and, eventually, all graduate and professional alumni.

Financial support continues to be one of the most critical issues in doctoral education, particularly for public research universities who find themselves in competition with the top public and private institutions for the world's best students. Dean Dubrow has promoted the concept of a "developmentally appropriate package" for all doctoral students, consisting of a combination of fellowships and assistantships that encourages students to make steady progress while also gaining important teaching and research skills that make them more successful in the job market. Multiyear support, from the time of admission, provides some measure of predictability to entering students, who are often supporting families and giving up the security of a full-time job to embark on a multiyear endeavor.

In 2004, prior to Dean Dubrow's arrival, the Graduate School prepared a major paper on the problems of funding graduate education, and a larger committee report urged the University to invest more heavily in graduate education. The focus of that paper was the declining real value of the existing investment. University leadership responded immediately, and the Graduate School's fellowship budget was increased by more than 20 percent over the previous year. Increases have continued and, as a result, fellowships have gradually become longer, larger, and more competitive—from a modest number of two-year fellowships in 2004 to more than half for three-year periods at higher levels in 2008. Yet, even with a substantial amount of new investment, the Graduate School is currently able to make multiyear offers to only about 200 of the more than 2,000 students it admits each year, knowing that about one-third of those will come to Minnesota rather than accept another university's offer—a total of 66 students in 2007-08. Without generous offers of support, the University of Minnesota will not only fall behind in time-to-degree and completion rates but will increasingly lose the best talent at the outset—students who when surveyed say they would prefer to attend Minnesota—to top private as well as public institutions, which are now offering a minimum of five years of support to all admitted students.

Multiyear funding and close work with specific departments to improve completion rates and time to degree are only two approaches to the reform of doctoral education. The Graduate School's new Writing Initiative, launched in 2007, grew out of an award-winning proposal to improve doctoral degree completion. When course work is completed, many students lose contact with their cohort and experience isolation during the single most demanding period of their education: completion of their thesis or dissertation. The Graduate Writing Initiative proposal adopted a model of dissertation-writing support that had been proven effective for graduate students of color and adapted it to the needs of all university students. An outgrowth of this initiative is that University offices, and units that play a part in facilitating graduate students' writing, have collaborated to create a variety of options that ensure students' access to support and services at different stages of the writing process.

A related area of reform concerns the issue of collaboration on theses and dissertations. While American universities persist in the single-author model for the capstone project of doctoral education, national conversations about "re-envisioning the Ph.D." and NSF-sponsored training grants (for example, the IGER Program) have called for fostering interdisciplinary research and collaborative practices at all levels of doctoral education. In response to these emerging concerns, the University of Minnesota's Graduate School led a yearlong discussion within its Policy and Review Councils during the 2007-08 academic year to explore the possibility of allowing collaboration in dissertation research and writing in order to address intellectual questions or solve societal problems inaccessible by single investigators or those working exclusively within disciplinary boundaries. Four of the Graduate School's six Policy and Review Councils, as well as its Executive Committee, voted in spring 2008 to adopt a policy permitting co-authored work by two or more degree candidates in cases where the full range of skills and competencies expected of graduates can be demonstrated by each contributor but the nature of the intellectual project requires the skills and competencies of more than one individual. Implementation of the new policy will be piloted in the four councils that voted in favor of reform; it will be delayed for at least one year for graduate programs represented by the two councils that voted not to approve it.

Finally, Dean Dubrow has articulated a clear value on enhancing the sense of community for graduate students along multiple dimensions. This support has ranged from deepening

graduate student involvement in governance, to seeding interdisciplinary graduate groups (described below), to greater Graduate School staff attention to student needs in the full range of interpersonal transactions from admissions to commencement. Altogether, these efforts aim to create a sense of community that is not limited to an academic department or program but is based on citizenship in the University as a whole.

Fostering Interdisciplinary Activity

The University's strategic positioning process identified fostering interdisciplinary research, education, and training as a critical institutional priority. Indeed, interdisciplinary innovation has a long history at the University of Minnesota, from the development of fields like American studies over the past 50 years to the emergence of neurosciences, to the identification of strategic interdisciplinary areas of investment under President Bruininks' administration.

A major change in the Graduate School over the last three years has been the development and growth of infrastructure to support interdisciplinary initiatives in graduate education systemwide. Dean Dubrow brought her own expertise to the task and has been a champion for greater investment, more dialogue, and an ever-increasing role for the University of Minnesota in advancing interdisciplinary and cross-college collaboration. The Graduate School has identified and adopted four key strategies for advancing the University of Minnesota's position with respect to interdisciplinarity: (1) participating in a cross-organizational administrative team to coordinate strategies and investments; (2) building institutional capacity through the development of an infrastructure that promotes collective leadership by the faculty, staff, students, and postdoctoral appointees who routinely engage in interdisciplinary activity; (3) seeding and supporting the development of interdisciplinary educational initiatives that are well-aligned with the University's strategic priorities; and (4) establishing the University of Minnesota's preeminent national and international reputation in this field by organizing top public and private research universities to work with us in identifying and adopting innovative practices that foster interdisciplinarity.

At the direction of the Provost, Dean Dubrow has been an active participant in the Provost's Interdisciplinary Team, working closely with the Office of the Vice President for Research to coordinate integrated initiatives and to develop a systematic approach to seeding interdisciplinary research and education initiatives. This has included regular meetings, coordinated investments, and the development of key policy initiatives.

During Dean Dubrow's past three years at the helm of the Graduate School, the University of Minnesota's infrastructure of interdisciplinarity has expanded considerably. This infrastructure consists of a new and highly productive Office of Interdisciplinary Initiatives (OII) within the Graduate School; the development of a 250-member strong Network of Interdisciplinary Initiatives (NII) that acts as a grassroots base among faculty, staff, and students for identifying policy issues; the development of a mechanism for training the University of Minnesota community in the skills of collaborative leadership; and the initiation of a 10-member national Consortium for Fostering Interdisciplinary Inquiry (CFII). While past investments in seeding interdisciplinary activity principally have focused on seeding projects, Dean Dubrow brought an attention to building a sustainable infrastructure within the University and among higher education institutions seeking to make advances on this front. In this respect, she has effectively instantiated interdisciplinarity within peer networks at every institutional level. The

consortium has further insinuated a concern with interdisciplinarity into the most fundamental functional areas where barriers have been found: research, education and training, academic administration and governance, finance and budget, space and capital planning, development and fund-raising, equity and diversity, and collaborative technologies. By building cross-institutional peer networks, the consortium has helped directors of development and finance and budget as well as other functional leaders to work together in identifying the changes needed to remove barriers to interdisciplinary activity. As a result, the University of Minnesota has leap-frogged beyond its top public and private peers by developing both an internal advocacy network and a supportive infrastructure for the transformation of institutional policies and practices that previously hindered interdisciplinary activity. Through the consortium, however, it is poised as a leader of best practices.

Some specific accomplishments during the past three years include:

- The OII, formed in 2006, addressed the lack of a centralized source of information on interdisciplinary initiatives at the University (e.g. individual interests and expertise, available funding, existing projects), a recurring issue for those interested in this type of work. In its first two years, OII developed and launched a Web site to serve as a portal for information regarding interdisciplinary initiatives and opportunities for faculty, staff, postdoctoral scholars, and graduate students in the areas of training, professional development, networking, and funding to support interdisciplinary research, teaching, and training. It also created a database and listserv to manage information on individuals engaged in interdisciplinary work and to foster better communication and information sharing.
- Other OII initiatives have included a new policy on forming interdisciplinary graduate groups and a call to form them; work on a collaborative theses policy; seeding development of new interdisciplinary graduate programs; a call to seed best practices in interdisciplinary graduate education; a call for interdisciplinary graduate teaching fellows; and a call for nominations for interdisciplinary doctoral fellows.
- The Collaborative Leadership Development series debuted in 2008 in partnership with the Office of Human Resources and the Provost's Interdisciplinary Team. Workshop topics have included conflict resolution, collaborative team building, mentoring in interdisciplinary contexts, and successful interdisciplinary grant writing. Interdisciplinary work often goes against the academic grain, in which disciplines have developed virtual cultures and languages. Collaborating across disciplinary boundaries does not come naturally to many top scholars. The series is designed for faculty, staff, postdoctoral fellows, and graduate students engaged in interdisciplinary research, teaching, training, and creative endeavors. It provides opportunities to gain the leadership skills needed to successfully navigate the challenges of working in interdisciplinary teams, to launch and manage cross-disciplinary collaborations, and to advocate for the institutional changes needed in order to foster all forms of interdisciplinary inquiry at the University. The sessions were recorded to create an online video curriculum based on workshops, available on the OII web site.
- The OII also sponsored a President's Emerging Leaders (PEL) team to undertake a nine-month project exploring collaborative leadership issues to inform the future development of the collaborative leadership series.

- The NII, organized under the auspices of the OII in April 2007, addresses the issue of information sharing. It comprises a University-wide network of participants and leaders in interdisciplinary research, creative work, education, and training initiatives on the Duluth and Twin Cities campuses. In 2007-08, the network identified a set of critical issues in interdisciplinary work that will guide its work in 2008-09.
- Through the CFII, the Graduate School is enabling the University of Minnesota to take national leadership in interdisciplinarity. In 2007-08, consortium members developed an assessment tool to conduct a comprehensive self-study examining policies and practices in eight key functional areas. Analysis by a team of experts in the Office of Institutional Research is beginning this summer and results will be shared at an invitational conference hosted by the University of Minnesota in November 2008. The conference will provide consortium members an opportunity to exchange findings about opportunities and challenges in interdisciplinary inquiry and to develop strategies for improving the climate for interdisciplinary activity at institutions of higher education. A second, implementation phase for the work of the CFII will follow the fall 2008 conference. With substantial support for this multi-institution consortium, under the auspices of the Office of the Senior Vice President for Academic Affairs and Provost, the CFII aims to transform the capacity of participating universities to successfully engage in interdisciplinary research, education and training, and creative activity.

Within the scope of its responsibilities for educational initiatives, the Graduate School has traditionally funded cross-college interdisciplinary programs. Over time, it has worked to move support for those programs that have become departments into colleges rather than continue to support them in the Graduate School and also to discontinue support for programs of diminished vigor. In addition, Dean Dubrow has taken an active role in supporting the vitality of graduate programs by initiating a series of workshops to help program administrators and faculty build the capacity to undertake strategic planning. Receipt of Graduate School funding in fiscal year 2008-09 is conditional upon interdisciplinary programs' participation in a series of strategic planning workshops with the goal of developing a sustainable strategic plan for the future.

The Graduate School has collaborated in the development of a number of new policies related to interdisciplinary activity, including a new policy for establishing, operating, and evaluating entities seeking designation as University-wide centers. The procedures to be followed by those applying for University-wide center designation were finalized and posted in July 2007. This category of centers draws membership from multiple colleges and is authorized by the president and by the senior vice presidents to support and advance research, education, or public engagement initiatives aligned with key University strategic priorities. Dean Dubrow also recognized the need to create a position for review of these centers, and she put Graduate School resources toward it. Engineering professor Doug Ernie was hired as a new associate dean in the Graduate School in fall 2007. Ernie will have responsibility for administering the review, the Office of the Vice President for Research will participate in reviews that involve research centers, and other appropriate administrators will be involved in reviews for institutes and initiatives that primarily advance education and training. Ernie is also training with Associate Dean Shirley Garner to take on responsibility for the review of academic programs, another key quality control function of the Graduate School.

Diversifying the American Intellect

Diversity is an important component in the University's goal of recruiting and graduating excellent students. The magnitude of challenges faced by the human community demand all intellectual capital, including the experiences, priorities, and insights of those who have been excluded or marginalized.

Well before 2005, the foundation was laid for the critical work of diversifying the graduate student body and the next generation of faculty. The Graduate School Office for Equal Opportunity in Graduate Study, established in the 1970, evolved to become the Diversity Office in 2004. The office has researched and developed ways that assist students of color to succeed in graduate education, including the Community of Scholars Program, the Diversity of Views and Experiences (DOVE) fellowship program, and proactive and personal recruiting practices.

Since 2005, practices effectively piloted by the Diversity Office began to expand to benefit the general graduate student body.

Academic and personal development workshops and seminars—a major component of the Community of Scholars Program—had been demonstrated successful by 2004 in contributing to the retention of graduate students of color. These workshops and seminars have now been opened to include all graduate students and postdoctoral fellows. In fall 2007, increased funding allowed for a greater variety of higher quality programs that reached a wide audience of students.

The DOVE fellowships were established to strengthen graduate education through diversity in the 1990s. Since 2004-05, the recurring budget for the DOVE program has increased from \$300,000 to a recurring allocation of \$800,000 in 2007-08, and an additional \$100,000 from compact funds will be added in 2008-09. DOVE fellows' participation in a summer bridge program as part of the Community of Scholars—enabled from 1999 to 2004 by a Bush Foundation grant and support from the Office for Equity and Diversity and the Graduate School—has been institutionalized: the fellows' academic programs pay for the \$4,000 summer stipend and \$1,000 travel grant. Thus, central support from the Graduate School is matched in a partnership with the academic unit that hosts the scholar.

The proactive, personal approach to recruiting students from groups underrepresented in graduate education is also being expanded. Research shows that a personal approach makes a significant difference in the college choice decision-making process for students of color. Before 2005, the Graduate School developed a simple database of prospective students and expanded recruitment travel, campus visit programming, personal advising, and participation in local and national efforts that assist underrepresented students with applications to graduate school. Over time, the number of applications to the University of Minnesota Graduate School dramatically increased, even during times when national numbers were dropping. In 2005, elements of this approach began to expand and be adapted into services for all prospective students. Indeed, best practices in supporting students previously underrepresented in graduate education became recognized as best practices in supporting all students.

Before 2006, the University lacked a comprehensive means of tracking prospective graduate students who didn't apply in the same year they had contact with the University. In addition, contact with academic programs was not always timely. To solve this problem, the Graduate School invested in a new module that was added to the online ApplyYourself system (described below)—an electronic prospect system. Beginning in 2006-07, it has allowed the Diversity Office to track all prospective graduate students of color and to efficiently share that information with individual graduate programs.

To meet the challenge of increasing global competition for top graduate students, Graduate School representatives joined a University-wide task force in 2004 to develop a plan for strategic international student recruitment at both the undergraduate and graduate levels. Since 2005, the Graduate School has partnered with the Office of International Programs (OIP) to create University-wide publications for all prospective students and to conduct strategic recruitment in Canada, India, Turkey, and China. The three-pronged approach of this sustained effort is to increase the quality of graduate applications, the diversity of programs to which students apply, and the overall size of the applicant pool. To date, efforts in China and India have yielded successive increases in applications as well as admitted students; from India, the University has seen an 18 percent increase overall in students for fall 2008. Efforts in Turkey and Canada have been mixed. The Graduate School now budgets for international recruitment but depends on funding matches and collaborative efforts with OIP for most international recruitment funding and activities. A strong partnership between OIP and the Graduate School continues to support international recruitment.

A major three-year University project, Reexamining Graduate and Professional School Admissions Practices, began in 2007 under the Graduate School's leadership. This project grew out of a partnership between Gail Dubrow and Rusty Barceló, which was prepared for submission to a competition sponsored by the Council of Graduate Schools to promote an inclusive graduate community. The two offices built a partnership among admissions officers in the University of Minnesota's graduate and professional programs to reexamine barriers to diversity built into the admissions process. This broad-based partnership, which started with 20 volunteer programs, is critically evaluating current practices of University of Minnesota graduate and professional programs to diversify the student body, identify innovations to address barriers, and share best practices with the graduate and professional school communities nationally. During the 2007-08 academic year, these 20 partners closely examined their own admissions goals and processes. As part of the project, the Graduate School's application for admission has undergone major revision and is expected to be in place this fall. The more than 13,000 applicants expected for admission in fall 2009 will use this new application, which has been pre-tested using existing graduate students.

The rapidly developing online admission system used by the Graduate School Office of Admissions is developing an integrated approach with a prospect tracking system to allow academic programs and the Graduate School to be in frequent contact with applicants and increasingly turn offers of admission into acceptances.

Graduate education is intrinsically related to the goal of preparing excellent faculty. Postdoctoral education and training have been a missing link in the pipeline to diversify faculty at the University as well as nationally. In many fields, new Ph.D. graduates do not move directly into tenure-track positions but are first hired for one or more postdoctoral appointments. Building on efforts begun before Dean Dubrow's arrival, the Graduate School has taken administrative leadership in providing services to all postdoctoral appointees at the University. Noro Andriamanalina now serves as director of the Office of Postdoctoral Affairs, maintaining an ongoing and productive relationship with the Postdoctoral Association.

Under Dean Dubrow's leadership, Andriamanalina has established a new University of Minnesota Postdoctoral Fellowship that has brought the most talented future faculty to our campus for one to two years of pre-faculty training. The first three fellows were hired for the 2007-08 academic year. Funded through McKnight Foundation reserves and administered through the Graduate School, the program seeks scholars with research interests in diversity,

interdisciplinarity, and community engagement. Departments help to identify top candidates and provide faculty mentors and funding for research. The fellowship provides salary and benefits for one-year appointments beginning each fall semester. The first year resulted in tenure-track hires at the University of Minnesota and the University of Kansas, while the third fellow continues for a second year of the fellowship. Two more fellows will arrive in August for the 2008-09 academic year.

The Graduate School's commitment to fostering diversity also has been advanced through direct partnership with Vice President and Vice Provost Rusty Barceló and the Office of Equity and Diversity. Not only have the two offices partnered directly on the Admissions Initiative but they have also worked closely on the realization of Barceló's vision of developing a new Equity and Diversity Research Institute, contributing to shaping the mission and strategy, drafting the proposal, and leading a successful internal search for the institute's founding director. Cooperative development activity reflects an ongoing commitment to ensuring access for undergraduate and graduate students previously underrepresented in higher education.

Collaboration with Collegiate and Campus Partners

The Academic Health Center and Office of the Vice President for Research. Over the past year, the Dean of the Graduate School has actively participated in the leadership group responsible for designing an integrated approach for advancing the field of informatics at the University of Minnesota. During the past year, the necessary approvals have been obtained for establishing a new umbrella program to provide graduate education in interdisciplinary informatics, and the Graduate School has worked in partnership with the AHC and OVPR to coordinate the education and research dimensions of this initiative.

University of Minnesota, Duluth (UMD). Over the past three years, the Graduate School's operations on the Duluth campus have stabilized and shifted their focus from working out issues of cross-campus structure and protocol to restoring high levels of productivity and functionality, especially with respect to planning for the future. In January 2007, Dean Dubrow appointed UMD geography faculty member Larry Knopp as the Associate Dean for Graduate Education in Duluth. He brought energy, intellect, seriousness, and a strong capacity to collaborate to the role. The position was also reconfigured from a 50 percent to a 75 percent time appointment, with the additional 25 percent dedicated to development and implementation of a recruiting plan for graduate programs at UMD. His first assignment, completed in fall 2007, was the development of a comprehensive recruiting plan, developed in consultation with stakeholders throughout the University system. Moderate-cost elements of the plan are currently being implemented, but more costly elements await funding. The plan itself, meanwhile, undergoes constant updating in response to new developments. One of the most significant accomplishments arising from the plan has been the integration of Duluth and Rochester into the Graduate School's online admissions system.

Since 2007, two new Graduate School doctoral programs have been added that are either based entirely or substantially on the UMD campus: a doctor of education program (major in teaching and learning), begun in fall 2007; and an all-University Ph.D. in integrated biosciences (IBS), which begins operation in fall 2008. A companion M.S. in IBS, previously based entirely at UMD, will be converted to all-University status in fall 2008. Both IBS programs currently

focus on the Duluth campus but involve faculty and students on multiple campuses. Over time, it is anticipated that both programs will involve increased activities and numbers of students on campuses other than UMD.

After a lapse during the period of instability in the associate dean's office, various processes and practices have been updated or revived. The process of regularly reviewing Graduate School programs at Duluth, for example, has been renewed. One external and two internal reviews of programs were conducted during the 2007-08 academic year and more are scheduled for the 2008-09 year. In addition, the agreement reached in summer 2007 between UMD administration and the Graduate School to extend online application and admission capabilities to Graduate School programs on the Duluth campus entailed substantial adjustments in both technology and practice within the Graduate School's Office of Admissions, the UMD Graduate Office, and the various Graduate School programs on the Duluth campus. All graduate programs on the Twin Cities and Rochester campuses will also be affected by this change. The system is scheduled to go live in September 2008. Various day-to-day practices and procedures have been revisited and, in some cases, brought more tightly in line with Graduate School and University standards, including admissions, block grants, fellowships, travel awards, etc.

Finally, the Graduate School, through its associate dean at UMD, facilitates discussions and analysis of the status and future of graduate education on the campus and in northeastern Minnesota. Discussions have involved a wide range of stakeholders, including faculty, staff, students, UMD and Graduate School administrators, and community leaders and partners. They are identifying both limiting factors (such as comparatively low levels of financial support for graduate education at UMD from all sources) as well as distinct niches and opportunities for the future—all to be evaluated in light of Duluth and northeastern Minnesota's distinct situation and circumstances, potential changes in campus budget priorities or funding mechanisms for graduate education, and the University's systemwide strategic positioning initiative. A formal document articulating this vision will be developed and submitted by the end of the 2008-09 academic year.

University Foundation. Even though the Graduate School has long managed and distributed private funds—currently about 35—historically, it has not been considered a fund-raising entity. There was no concerted effort to build those funds, to steward the donors, or to look for opportunities to solicit new funds.

The Graduate School's unit directors and associate deans long urged the hiring of a director of development. Former dean Christine Maziar would not agree to such an appointment because she felt it would put the Graduate School in competition with colleges. Though for similar reasons interim dean Victor Bloomfield also had no enthusiasm for such an appointment, he was prepared to go forward upon Provost Sullivan's urging. The University Foundation opposed the idea. Seeing the necessity, Dean Dubrow worked with the Foundation to hire Bill Venne as the Graduate School's first development officer in 2007 and to undertake development activities to enhance graduate education in ways that would benefit rather than compete with colleges.

After only one year, it is obvious that the Twin Cities leadership community is interested in learning more about graduate education and the dean's innovative vision for graduate education in the 21st century. At the same time, part of the University community is committed to raising significant fellowships that are critical to success in recruiting top prospective students in a highly competitive global environment.

This is an important shift in how the Graduate School operates and how it is perceived. It is no longer an administrative division alone but rather a key collegiate unit that looks to the external community for support and participation and works with the University community to strengthen support for graduate students and graduate education.

Office of the Vice President for Research (OVPR). The period after the Graduate School and OVPR were separated in 2002 was one of inevitable strain as the long-joined units identified a division of labor for the institution. Because research and graduate education are so closely intertwined, both units continue to clarify their roles and communicate changes, which remain “new” to many faculty and staff members even after six years.

The Graduate School and OVPR share several staff members in the human resources and finance area and benefit from close collaboration among their staff members. An example of their outstanding collaboration is work on Network of Interdisciplinary Initiatives, the Collaborative Leadership Program, and the Consortium on Fostering Interdisciplinary Inquiry and other interdisciplinary endeavors, where they comprehensively bring together and more fully service the needs of both graduate education and research at all levels across the institution.

Colleges and the Office of Human Resources. Compensation rates for postdoctoral positions at the University of Minnesota, especially in some colleges, have been noncompetitive for many years. This not only made the University of Minnesota less competitive for these important positions, but effectively reduced opportunities for graduate assistantships. Dean Dubrow recognized the problem and immediately set Associate Dean George Green to work with the OVPR and the Office of Human Resources to conduct an analysis by college and department that led the University to raise the minimum rate significantly during the dean’s first year and to privately offer bridge funds to those colleges who employed so many postdoctoral staff members at such a low rate that they could not implement the increase fast enough alone. This change resulted not only in better and more consistent pay across the University but a rise in postdoctoral appointees' satisfaction and, indirectly, in graduate student employability—both contributing to the goal of keeping the University a great place to work.

Exceptional Organization

Although the Graduate School might be viewed as one of the University’s earliest enterprise systems, bringing into a single system more than 130 academic units and multiple campuses, one of the biggest issues facing it in recent times has been the basic question of its existence. In the past dozen years, two serious attempts have been made to close the organization and devolve its functions to the colleges and campuses. With the national search and appointment of Dean Dubrow, this issue has faded as a factor in employee morale, services of the unit, or the vision of the team. In terms of efficiency, consistently high standards of quality, and the capacity to realign resources with institutional strategic priorities, the University is best served by a centralized graduate school organization.

Dean Dubrow has brought a strong organizational sense, understanding many of the Graduate School’s needs and possibilities as evidenced by the direction she has given to long-standing programs, the development of new programs, and the hiring of new deans and directors. She also has encouraged looking to the future, working in collaboration rather than in

competition in the microcosm of the Graduate School and the macrocosm of the University, and striving to improve the quality of graduate education in active ways, rather than resting on laurels or maintaining the status quo. The University's strategic planning has made possible a new insistence on excellence as a basis for selective resource allocation. In all these activities, she works continually to articulate the University's strategic objectives as a basis for the Graduate School's vision.

One early signal of Dean Dubrow's intent to foster responsiveness and innovation as hallmarks of the Graduate School was a competition announced at the centennial symposium late in 2005 and launched in January 2006. The Graduate School invited proposals for innovations with the potential to strengthen graduate education at the University and support its institutional goal of attaining top-three status as one of the world's great public research universities. The competition generated 31 proposals, of which three were funded: one to recruit students in the basic biological and biomedical sciences more effectively, another that resulted in the Graduate School's Writing Initiative (described above), and a third to fund University-wide Interdisciplinary Fellows. The message was clearly conveyed: the Graduate School welcomes good ideas from every corner of the academy and is committed to improvements in the quality of the graduate student experience.

Excellent staff. Morale across the Graduate School has improved as the dean has instilled more individual respect of employees, devoted resources to areas consistently understaffed, and created the potential for career progression within the Graduate School. The entire staff is becoming a stronger community, serving its constituents with new energy, and helping to position the University not just for participation in national organizations but also for national leadership.

The Graduate School's long-term core leadership is beginning to change. Turnover has been low at all levels but especially in middle management, where many individuals have more than two or three decades of service. Change on this front is inevitable, and decades of institutional memory are poised to leave the University as a result. The dean has recognized this situation and is taking effective steps to anticipate and plan for thoughtful transitions. This year, she led the staff in a national search to hire a new director of graduate admissions, replacing a director with 35 years of knowledge and experience.

Exceptional service. The Graduate School admissions staff has continued to move toward digitization, which enables a "high touch" experience for applicants and high responsiveness for academic programs. Toward the goal of achieving a paperless workflow, planning is under way for a major conversion to document imaging in the graduate admissions office and all its constituent programs.

Once students are admitted, services provided by the Graduate School include advising faculty, students, and staff on policies and student degree-progress issues; review and final approval of key milestone forms and events, such as the degree-program form and the final examination; degree clearance and commencement; and informal conflict mediation.

The Graduate Student Service and Progress staff has long taken pride in high standards of service delivery, with a focus on timely, accurate, and friendly service to students, faculty, and staff. It has operated with the understanding that services must be continually evaluated and adjusted to meet the changing needs and expectations of Graduate School constituents. In the past, the staff relied primarily on anecdotal evidence and its own institutional memory and

understanding to modify services as needed. But in the past few years, collaboration with faculty, students, and staff to more fully inform policy and service-delivery decisions is an increasingly valued method. Changes have focused on collaboration within and outside the Graduate School to improve service delivery. Three examples illustrate the collaborative approach.

The Graduate School Degree Management (GSDM) project is poised to convert paper-based processes to easy-to-use digital format. Feedback from faculty, students, and staff during the most recent review of the Graduate School overwhelmingly confirmed the staff's belief that paper-based processes related to student academic progress were outdated. As a result, through a 2006 Service and Process Improvement Fund (SPIF) grant, the staff spearheaded the GSDM project in cooperation with the Office of Information Technology. Graduate students, directors of graduate studies (DGSs), and DGS assistants on the Duluth and Twin Cities campuses participated in focus groups and usability testing, and their feedback significantly impacted the design of the GSDM system, which would replace the Degree Program form, required of all Graduate School students, with a transparent system for students and faculty to track each student's customized degree requirements and progress toward the degree. Development was been on hold for a year to secure financing to complete the project and will move ahead this fall in collaboration with the Office of Information Technology. The estimated cost savings alone will be about \$1 million per year.

New how-to workshops are not only advising graduate students on how to successfully navigate major milestone events but are also providing valuable information to the staff about Graduate School services and where improvements can be made. These workshops for interested graduate students began two years ago, in collaboration with the Council of Graduate Students (COGS). Improvements to the Graduate School's online communication of policies and procedures are based significantly on the opinions expressed at these information workshops.

The Communication Mapping Project is gathering information from a group of DGS assistants to identify aspects of the Graduate School's electronic, paper, and oral communications that need improvement and to brainstorm ideas about how to achieve necessary enhancement. DGS assistants are vital to the smooth functioning of graduate programs and to the student academic experiences. The project employs a structured "project mapping" process. Results will contribute to short- and long-term goals related to service improvement.

Increasing technological capacities. Computing has been the center for converting paper-based processes into digital ones. The Graduate School has taken the activities and transactions that are most frequently used in the graduate education community and developed partnerships to go through the conversation processes. This is one of the most significant changes over the past three years. From being one the nation's first major proponents of ApplyYourself admissions application software to adapting more University of Minnesota processes to electronic format, the Graduate School's data unit has been a leader in using technology to solve problems faster without increasing staff levels. The Graduate School dean and associate deans have been champions in moving the organization forward on this front. The Graduate School's staff has also built a strong reputation for providing timely and accurate data.

In 2002, the University of Minnesota implemented an online application process, ApplyYourself. It first went live on the Twin Cities campus, with functions added each year. This fall, ApplyYourself will go live for the Duluth and Rochester campuses. During this change, the Graduate School has offered academic programs the choice of receiving paper files, digital files, or a combination. On the path to a paperless admissions unit, initial steps are being

taken this summer toward scanning images of all application files. Overall, this transformation has allowed a reorganization of the admissions staff and office space to create a unified service location, greater efficiency, and improved service.

For several years leading up to 2005, a Welcome Kit CD for newly admitted graduate students was produced annually. Now, its content has been adapted to a MyU portal for admitted students, which is continually updated and provides a seamless transition to the portal for enrolled graduate students. Over the past three years, the Graduate School initiated and now provides ongoing support for MyU portals for admitted prospective as well as enrolled graduate students. The staff works in close collaboration with the individual graduate programs to provide content.

The Graduate School administers several award, grant, and fellowship programs for faculty and students, as well as tracking graduate student milestones, graduate faculty membership, etc. Many are still paper-based processes, often requiring several signatures and submission of multiple copies of application materials. This year, the Graduate School collaborated with Disability Services to purchase workflow software to automate a range of business processes. The Graduate School's two pilot projects are the Graduate Faculty Appointment process and the application process for the Grant-in-Aid of Research, Scholarship, and Artistry (Disability Services is working on a third pilot). The team won a Service and Process Improvement Fund (SPIF) grant to move forward. The Graduate Student Degree Management (GSDM) project, also supported initially by a SPIF grant, was described above.

The Graduate School adopted a vendor's system that allows students to submit their theses electronically. Staff are working with University Libraries to streamline the process so the library receives a circulation copy of theses.

Strategic communication. The Graduate School's unit directors long encouraged hiring a director of communications. Dean Dubrow is the first to confirm the importance of this position and brought Gayla Marty from University Relations to the Graduate School early in 2008. The new director has quickly contributed in many ways; assuming tasks that free others' time for their principal responsibilities and representing the Graduate School in central communications and marketing endeavors. The new communications position is designed to undertake a strategic approach that will sharpen the Graduate School's use of digital technology to transmit best practices, bring the Graduate School into the mainstream of University communications, and craft messages and stories that communicate the key role of graduate education in institutional aspirations.

Transformation to information-based decision-making. In the past, decision making about graduate education has been made, at best, on the basis of leadership's knowledge base from a particular discipline and experience, and, at worst, taking the path of least resistance. Balancing the demands of many colleges and constituents, the Graduate School often found itself in position of defending the status quo, resisting proposals for innovation, and taking few risks in managing change. This approach gave rise to the Graduate School's reputation as a relatively difficult bureaucracy, generating considerable frustration, particularly among the more entrepreneurial deans, who were then forced to seek approvals for innovative programs through political negotiations outside the Graduate School's purview. This well-earned reputation led to a need to create a more responsive Graduate School that has the capacity to embrace innovation while upholding quality. The approval of a series of online offerings, global educational

partnerships, and related innovative delivery systems for graduate education has demonstrated the Graduate School's capacity for fostering innovation. Likewise, the Graduate School has initiated policy changes that will enhance the University's capacity to make faculty appointments that give students access to global expertise, whether or not the individuals are on the University's payroll. The move toward data-driven decision making is one aspect of building a graduate school capable of making highly informed decisions and poised to address innovative approaches, rather than one mired in questions of historical precedent.

In the move toward data-driven decision making, the Graduate School has aligned itself with the goal of increasing the University's capacity to assess quality and match scarce resources with strengths. In the absence of national metrics and measurements related to graduate education, the Graduate School is working with other graduate education institutions to establish common metrics related to time to degree, completion rates, and other issues. Demonstration projects, such as the Ph.D. Completion Project, effectively develop common measures, show that change is possible, and guide the University of Minnesota's graduate programs toward best practices.

Internally, the dean has focused first on establishing those metrics by which academic programs are reviewed, investments are shifted, and resources are aligned with the most excellent and promising programs. In dialogue with the Provost, external measures have been identified and tracking systems put into place. Beyond that, Dean Dubrow has followed up with individual college deans and department chairs to discuss strategies for making progress at the individual program level. This coming fall, programs characterized by long times to degree and low completion rates will attend meetings jointly sponsored by the deans of the College of Liberal Arts and Graduate School to share specific strategies for improvement. This coordinated approach is more likely to advance progress than the separate approaches pursued previously by the CLA dean and Graduate School.

Under the new budget model, increased communication between central administrative offices and participants in the budget pool is critical. Toward that end, the Graduate School has increased its capability to survey constituent groups and to collaborate with other departments and organizations to broaden the base of information available for making a wide range of decisions. In addition to those surveys related to reforming doctoral education, described above, other examples include surveys of students who are offered admission but decline; stakeholders in the Graduate School's budget and compact process; administrators of graduate programs; and the NSF-NIH survey of graduate students and postdoctoral researchers in science and engineering. Staff now are working on greater coordination and efficiency in surveying. The lack of a dedicated survey expert hinders the Graduate School's efforts along these lines, as demand has risen dramatically over time.

Dean Dubrow's strategy for using cluster groups to advance change in the University's large decentralized environment has proven effective across a number of issues. Its hallmark is developing a cohort of volunteer, early-adopter programs, who later serve as coaches for a next set of programs. Basically, the Graduate School brings together volunteers from 14 to 20 graduate programs that commit to a sustained period of reflection on current practices, develop a plan for change, exchange information during the implementation phase, and then share with more programs that want to join the transformation. This helps to locate and bring forward information and data from deep within those programs that are most successful and which have built a sense of community committed to redesigning and improving graduate education. In terms of data-based decision making, this approach privileges local knowledge to ensure that

change is not adopted generically, and it provides vital information to refine broad understandings of best practices in graduate education.

Another critical component in data-based decision making is sharpening all constituents' engagement in the governance process. This brings those faculty members and graduate students actively engaged in charting the future of their programs into contact with the Graduate School and others, where the Graduate School can lead and help to shape discussion in ways that benefit the institution as a whole. Rigorous review and vigorous debate have characterized the Graduate School's governance process under Dean Dubrow's leadership. It stems from her promise to bring issues that matter to the Policy and Review Councils and to listen closely for ideas that will build consensus in the directions that the Graduate School takes.

Increased engagement in governance. Aspects of the Graduate School's governance system and the recognition of the role played by directors of graduate studies (DGSs)—the key liaisons in the school's many graduate programs—changed substantially with the adoption of a new constitution in 2002 and efforts of subsequent Graduate School deans to implement the provisions of the new governing document. Among the constitution's salient improvements were an articulation of the crucial role of the DGS with respect to graduate program quality, effective graduate program administration, and student support; a clear delineation of roles and responsibilities of the Graduate School dean and the DGS, graduate program faculties, and graduate advisers; and a new system of graduate faculty membership. The new constitution also mandated graduate programs to adopt best practices, such as conducting periodic reviews of graduate faculty members and annual reviews of graduate student progress, and to provide graduate student education in the responsible conduct of research and professional development opportunities. To help graduate programs meet these new responsibilities, the Graduate School began to offer DGS workshops, gradually expanding this audience to also include DGS assistants and, more recently, other graduate faculty.

Dean Dubrow has continued to place emphasis on the leadership role of the DGS as a critical factor in graduate program success, and she has encouraged and inspired each DGS to consider new ways of looking at excellence in graduate education and how to collectively attain it. Hers has been a shared vision for graduate education and one that requires the Graduate School and its many constituents to work collaboratively toward common goals. Assemblies and DGS workshops are among the many forums that have provided opportunities for mutual education and exchange, and increasingly these have built DGS skills and leadership ability.

The University's strategic planning effort encouraged the Graduate School to focus even more on the aspects of new and changed programs necessary to assure high quality and to explore with more certainty the ways a new program will fit into the institution's larger mission. The graduate education community has begun to look toward the place of this University in the increasing globalization of education in the 21st century. Just one example is a co-directed Ph.D. program between the University of Minnesota and France's École Polytechnique, a program that has become a model for others within the University.

The Graduate School is working actively to find areas where graduate program mergers or discontinuation are desirable. Responsibility for this effort has assumed a broader base than in the past, when only the Graduate School dean explored with college deans or department chairs and heads the desirability of these actions. Beginning in academic year 2007-08, the associate deans have taken responsibility for initial conversations with college deans and heads, enabling the process to move more quickly. The stepped-up effort began in fall 2007 and will soon have

completed a consideration of all graduate degree programs with fewer than 18–20 graduate students.

The University's strategic planning effort has been an effective means of stressing the University's ambitions to outside reviewers and to encourage them to focus on the ways departments and programs can help the University realize its goals and find a unique position among other national and international universities. Though reviewers are asked to assess the current standing of programs and departments, Dean Dubrow insists on a forward-looking assessment rather than one that dwells on the past. She encourages reviewers to offer suggestions about how to move forward to solve problems. In order to assure that reviewers give straight advice, the Graduate School tries to include at least one reviewer who is not part of a department's list of suggested reviewers. In the past, the Graduate School felt free to reject the names of suggested reviewers but did not offer additional names after independent consultation; it feels freer to do that now.

The Graduate School's Policy and Review Councils have provided a consistent venue for discussing new initiatives with both faculty (DGS) and graduate student representatives, soliciting their ideas and reporting progress toward goals. Attendance at these meetings has increased significantly over the past three years: faculty are keenly interested in the initiatives and the innovations they represent, and they are eager to participate, both in learning about and advancing them. The councils have served as the first point of contact in launching many new initiatives, which have often been refined based on the feedback provided—for example, the Graduate School's admissions initiative, writing initiative, a wide array of interdisciplinary initiatives, and proposals to change policy and practice to achieve new interdisciplinary goals.

The annual Policy and Review Council Assembly has also served as a means to discuss new initiatives and link them with related learning opportunities for the DGS group. This large assembly of all the P & R Council members consists of presentations on topics of interest to DGS and graduate student alike. Under Dean Dubrow's leadership, the assembly has provided an ideal venue to provide critical information relevant to new initiatives. For example, the fall 2008 assembly will feature presentations on best practices in the evaluation of collaborative work and on the new Graduate School admissions application, which is being revised in conjunction with the admissions initiative.

Over the past two years, the fall P & R Council meetings have included a discussion of the Graduate School's budget and compact priorities, which are shaped by input from an annual survey of a large and diverse constituency, including DGSs, college deans, unit heads, and more than 10,000 graduate students. It is a highly inclusive process and has demonstrated to stakeholders the value that the Graduate School places on their input and the school's responsiveness to their expressed needs and opinions.

Dean Dubrow has utilized the governance committees of the Graduate School in unprecedented ways and to an extent not previously imagined to build support for a comprehensive vision for graduate education and to stimulate action toward achieving goals and priorities. This process has been highly inclusive, collaborative, accessible, and proactive. Graduate programs and their faculty have reacted very favorably and are clearly working together with the Graduate School toward a shared vision to benefit multiple participants in graduate education, ultimately to achieve the institutional goal of a world-class research university.

The Graduate School will continue to utilize its governance committees to help identify and shape emerging priorities, seed best practices in graduate education, and ensure that new

programmatic initiatives are sound, reflect areas of intellectual inquiry that align with the University's strategic investments, and advance institutional goals and objectives.

Repositioning the University of Minnesota as a Leader in Graduate Education

Because the organization and leadership of the Graduate School were going through a major transition at the onset of the University's strategic positioning process, the work of the task forces overlooked several major issues in graduate education, other than the need for substantial new investment to ensure competitiveness and the need for collaborative leadership to advance interdisciplinary research, education, and training. While these elements are critical to excellence, significant work needs to be done at the unit level to develop specific plans for achieving excellence. Since 2005, conversations between the Provost and the Dean of the Graduate School have identified the focal issues required to achieve the goal of excellence in graduate programs, graduate faculty, and graduate students. With the Graduate School relaunched and reinvigorated during the past three years, and with significant experience gained from working with departments that have volunteered to undertake critical reforms, the time is now right to engage its many stakeholders in a process that drives the goals of institution-wide strategic planning down to the unit level: improving financial support for graduate programs, faculty, and students and better coordinating all-funds planning; reducing time to degree and raising completion rates; and identifying aspirational goals for unit excellence.

The Graduate School itself would merit from a thorough-going analysis of its policies with the goals of, first, eliminating unnecessary bureaucracy while maintaining a commitment to advancing educational excellence and, second, fostering innovation that leads the University toward its strategic goals in the future. These two objectives could be achieved by building on established partnerships with the deans, chairs, and program directors as well as the directors of graduate studies in each college.

The existing governance system—which posits directors of graduate studies as representatives of individual graduate programs—would form the nucleus of this Graduate School-wide planning effort to drive down the principles of strategic positioning to the unit level; however, to be effective, strategic planning for graduate education needs to bring together a wider range of stakeholders than usually have voice within its governance structure, including deans, department chairs, graduate faculty, and graduate students, among others. Recommendations arising from this visioning process would undergo final review by the Provost, Dean of the Graduate School, and other key leaders to ensure their alignment with the overall results of strategic planning and to set an agenda for implementation.

Since the University of Minnesota's Graduate School is governed by a formal constitution, one rather cumbersome but necessary aspect of implementation will involve calling a constitutional convention to carry out a thorough revision of the administrative policies and practices that govern graduate education. This is not something undertaken lightly or frequently, but nearly 10 years will have passed since the last time it was done at Minnesota, and since that time, many new issues have arisen that require constitutional change to manage effectively, including how interdisciplinary initiatives are managed within a disciplinary-based system of governance; how bureaucratic barriers to innovation can be reduced without compromising quality; and how the multiple campuses that comprise graduate education at Minnesota shall

relate to one another administratively. Undertaking Graduate School-wide implementation of strategic planning provides an opportunity for our graduate education community to coalesce around the series of reforms necessary to achieve the goals of strategic positioning: namely, to position graduate education at the University of Minnesota in the top tier of public research universities internationally.

The academic year 2008-09 would focus on pre-planning activities, including the development of a blueprint for the process and organization and structure of activities. A public announcement would be rolled out in spring 2009, and activities focused on core concerns, including reducing time to degree, increasing completion rates, all-funds planning for graduate student support, and related issues, would begin in fall 2009 with recommendations due in spring 2010. Deans would vet unit-based plans during summer 2010, and the Provost and Dean of the Graduate School would vet recommendations for reform of the Graduate School, with focused implementation of recommendations scheduled for the 2010-11 academic year. The completion of implementation during the 2011-12 year would occur concurrently with a national search for a new Dean and Vice Provost of the Graduate School. These reforms—at the unit level and throughout the Graduate School—would both position the University to recruit an outstanding new leader and allow that leader to begin operations under a broad mandate for the reform agenda recently implemented. A separate document, to be developed this fall, will outline a four-year plan, from fall 2008 to spring 2012, and detail annual objectives for the ongoing reforms and initiatives of the Graduate School, as well as the unfolding strategic positioning process for graduate education.

The goal for the coming century will be to maintain the critical role of the Graduate School as the champion of academic excellence in graduate education across more than 100 fields of study and the leading advocate for a high-quality graduate student experience—but with a new emphasis on collaboration with our partners in the colleges, departments, and interdisciplinary programs that are at the front lines of designing, delivering, and defining what constitutes excellence and quality within specific fields and disciplines. The Graduate School of this new century needs to be nimble and responsive to change that is driven by the confluence of student demand, faculty intellectual developments, strategic priorities at the institutional level, and opportunity.

A continuing challenge in the opening decade of the 21st century is to remove bureaucratic impediments to innovation without sacrificing the intellectual integrity of future academic offerings. Institutions that lack a central graduate school or quality-control function run the risk of pure opportunism, a laissez-faire approach to entrepreneurial behavior driven by revenue-generation opportunities to the exclusion of other important criteria, such as alignment with the academic mission of a research university. A deregulatory agenda is also driven by the economy of graduate education, which requires subsidy, as well as new fiscal responsibilities of deans. On the other hand, a stuffy, rule-bound, bureaucratic model of graduate education has slowed change in the supposed interest of maintaining academic standards and is now clearly out of pace with the speed of disciplinary evolution and interdisciplinary inquiry. The old model is inappropriate for a new economy of higher education that requires capacity to mobilize effectively for action in an environment that does not rely principally or exclusively on state funding to fuel development of new areas of research, education, and engagement with the pressing problems of our time. Critics of 20th-century graduate schools rightly claimed that they were regulated to absurd extremes in a system that seemed to focus as much on uniform

standards for page margins as on far more important questions, such as how to understand what constitutes excellence across more than 100 disciplines.

A sign of maturity in a century of development in graduate education is a focus on the most important common questions in a way that respects the diversity of approaches and expertise of faculty within their own distinctive disciplinary domains. This means considerably less uniformity and greater emphasis on a plurality of approaches to the design and delivery of graduate education. Through continued dialogue and partnership within the large community of graduate students, graduate faculty, and academic administrators at the program, department, college, and central levels, the University of Minnesota's Graduate School will gain recognition as the new standard-bearer for reinventing graduate education and fully realizing its transformative potential for individual development as well as knowledge creation in the 21st century.

The first three years of Dean Dubrow's leadership have built momentum, buy-in from the graduate education community, and actual implementation of innovation in a wide array of areas, from new organization forms (such as the systemwide Network of Interdisciplinary Initiatives and the national Consortium on Fostering Interdisciplinary Inquiry) and technologically innovative practices (such as digital competition management) to leading-edge policy changes (such as collaborative dissertations) that serve to gain a reputation based on evidence.

The next three to five years are critical to gaining national and international recognition of University of Minnesota graduate education as an engine of innovation. The slowness of other leading institutions—including those in the top three among public research universities—to change bureaucratic practices works in favor of the University of Minnesota's reputation. While formal ranking efforts such as the National Research Council's are certain to produce mixed results for individual programs, which will rise and fall within the top 10 or 20, it is possible to create a reputation for innovation in graduate education across all the University's fields through approaches already in play. To achieve our goal of rising to the top of public research universities, we must continue to make focused financial investments in specific graduate programs that have demonstrated their capacity to sustain excellence or their potential for achieving it.

But achieving an institutional reputation for excellence in graduate education requires far more than individual program investments. The institution as a whole needs to gain recognition for being the model for graduate education in the 21st century. This can be achieved as a path breaker in educational reform, which has achieved the proper balance between expectations of excellence and unparalleled nimbleness in pursuing innovations that align with institutional priorities. The University can also gain a reputation for implementing reforms that all agree are needed, but which few institutions have the will to carry out given the slow pace of change and the modest ambitions of leadership at most institutions.

The past three years of strategic positioning suggest that the University of Minnesota has a competitive advantage in the boldness of its vision and its will to change. Areas that have been the focus of strategic positioning, such as undergraduate education, are well on their way toward new and more ambitious goals in basic areas such as the quality of the entering class, time to degree, writing competency, and other benchmarks of excellence. Graduate education warrants a parallel effort to raise the bar of institutional expectations across its more than 130 academic programs. Activities launched within the past three years, from new initiatives to policy reforms, suggest that the graduate education community is prepared to develop a similarly ambitious vision and to embrace change as a breath of fresh air in an otherwise stodgy and outmoded

system, not only here, but across the landscape of higher education. Highly decentralized, graduate programs actually need a centralizing force such as strategic planning to identify core values, mobilize assets, root out impediments to achievement, and develop consensus on the specific changes in institutional policy and practice that are needed to sustain new and higher levels of achievement. The Graduate School is well positioned to serve both as a facilitator and a resource to this strategic planning process—given its knowledge of best practices—as well as an effective agent of institutional transformation.