2017 University Plan,
Performance, and Accountability Report

UNIVERSITY OF MINNESOTA
Driven to Discover℠

2017 University Plan, Performance, and Accountability Report

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Introduction

"To benefit the people of the state, the nation, and the world"

University Mission

The University of Minnesota, founded in the belief that all people are enriched by understanding, is dedicated to the advancement of learning and the search for truth; the sharing of this knowledge through education for a diverse community; and to the application of this knowledge to benefit the people of the state, the nation, and the world.

This mission, carried out on multiple campuses and throughout the state, is threefold:

Providing an extraordinary education that generates knowledge, understanding, and creativity. We seek to develop students who become leading scientists and teachers, engineers and artists, and health and business professionals, and who contribute to their communities at every level.

Conducting breakthrough research that moves us forward. Our researchers improve our understanding of the world and how we work and live.

Partnering with communities to advance research, share knowledge, and provide students with powerful academic experiences that address the challenges of a diverse and changing world.

To support this mission effectively, the University is committed to:

Employing world-class faculty and staff who are innovative, energetic, and dedicated to the highest standards of excellence.

Stewarding an outstanding organization that is responsible with resources, dedicated to measuring and improving performance, and aligned to support the University's core functions of teaching, research, and outreach.

University Overview

The University of Minnesota, founded in 1851, seven years before the territory of Minnesota became a state, is Minnesota's flagship and land-grant university and one of its most important assets, as well as a powerful resource for the region, the nation, and the world.

The University comprises five campuses with distinct roles, each campus contributing to the University's mission: the Twin Cities campus, where the University originated; the Duluth campus, which joined the University in 1947; the Morris campus, which became a system campus in 1960; the Crookston campus, which was added in 1966; and the Rochester campus, which was designated a system campus in 2006. The University is the state's only research university, and the Twin Cities campus is among the nation's most comprehensive institutions—one of only five campuses that have agricultural programs as well as an academic health center with a major medical school.

The University is the state's economic and intellectual engine. As a globally engaged research institution and one of only 62 members of the prestigious Association of American Universities, it serves as a magnet for talented people, a hub for collaboration, and a powerful catalyst for growth and innovation—a place where ideas flourish and where discoveries and services advance Minnesota's economy and quality of life. As Minnesota's land-grant institution, the University is strongly connected to Minnesota's communities, large and small, partnering with the public to apply its research and teaching for the benefit of the state and its citizens.

Governance and Leadership

The University is governed by a Board of Regents elected by the Minnesota Legislature (see discussion on page 3 and list of current regents in Appendix B). The president, executive vice president and provost, and vice presidents serve as the senior leaders of the University and the Twin Cities campus, which avoids the added administrative cost of a separate "system" office. Direct leadership for the remaining campuses is provided by four chancellors (see list of senior leaders in Appendix C).

Accreditation

All campuses of the University of Minnesota operate with the accreditation of the Higher Learning Commission. The Twin Cities campus has been accredited continuously since 1913. The Duluth campus has been accredited since 1968, and the Morris and Crookston campuses were first accredited in 1970 and 1971. The Rochester and Twin Cities campuses are accredited jointly. Each campus is accredited to offer the bachelor's degree; the Duluth campus is accredited to offer the master's degree and the Doctor of Education (Ed.D.) degree; and the Twin Cities campus is accredited to grant master's, doctoral, and professional degrees (see accreditation discussion on page 5).

Enrollment

Total enrollment at the University's campuses for fall 2017 was 67,949. Sixty-six percent of registered students were undergraduates. Non-degree-seeking students represented nine percent of total enrollment. In 2016–17, the University granted 10,613 bachelor's degrees, 3,681 master's degrees, and 1,691 doctoral degrees (Ph.D., M.D., D.V.M., D.D.S., Pharm.D., J.D.) **(Progress Card Measure)**.

An Accountable University

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

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

Since the University's inception over 165 years ago, public and University leaders have established and continuously reaffirmed a principle of accountability. Accountability for an institution as important and complex as the University of Minnesota, however, has myriad forms and interpretations. For some, accountability requires a discussion about the University's ability to address its mission. For others, accountability may necessitate a precise accounting of revenue and expenditures, an assurance of efficient and competent management of institutional resources, or records and institutional data about students and performance. Yet others may hold that accountability is best met by examining leadership and its ability to employ strategies that advance a vision. Still others understand accountability in terms of return on investment and so look for evidence of direct impact on the State of Minnesota and its citizens.

The University's leaders take seriously this responsibility to be accountable, in all of the ways mentioned above. Among the participants engaged in the University's accountability relationships are its Board of Regents, senior leaders and internal units, faculty, state and federal authorities, citizen and nonprofit organizations, accreditation associations, and multiple media organizations.

University of Minnesota Board of Regents

Chapter 3 of Minnesota's 1851 Territorial Statutes established the University of Minnesota and specified that "[t]he government of the University shall be vested in a board of twelve regents, who shall be elected by the legislature." Later sections delineate

specific powers to "enact laws for the government of the University"; "regulate the course of Instruction" and confer degrees and diplomas; regulate and prescribe tuition and fees; and select, manage, and control all University lands.

These twelve regents—eight of whom are elected to represent Minnesota's eight congressional districts and four elected at large—represent the interests and needs of the state and the citizens of Minnesota and, on their behalf, hold the University's senior leadership accountable. The board's fundamental accountability documents are the University Plan, Performance, and Accountability Report (z.umn.edu/accountabilityreport); the University Operating Budget (finance.umn.edu/budget.html); and the University Capital Budget (finance.umn.edu/budget_capital.html).

Other accountability activities at this level include the president's report to the regents at each of their regular board meetings, as well as monthly, quarterly, and annually mandated reports to the board on topics such as student admissions and progress, faculty promotion and tenure, tuition rates, the independent auditor's report, real estate transactions, gifts, asset management, purchases of goods and services over $1 million, new and changed academic programs, academic unit strategic plans, NCAA reports on student-athletes, and presidential performance reviews. Such reports and presentations are archived on the Board of Regents website.

University Progress Card

In October 2015, the Board of Regents, in consultation with the administration, approved a Progress Card framework (oir.umn.edu/planning-metrics/progress-

card) to drive performance and support oversight. The development effort focused on identifying the areas in which the Board of Regents should set specific aspirational goals. The board's intent was to focus oversight on a limited number of measurable goals and trends that indicate or drive excellence, understanding that the University measures progress and accountability broadly throughout the institution in many ways, including the University's Plan, Performance, and Accountability Report.

The board has adopted a set of "gold" and "maroon" measures for the Progress Card. The gold measures represent data sources that are well understood and agreed upon, where there is the ability to set a quantifiable goal over a reasonable time period, and where the University can take actions to influence the results. The maroon measures are important trends and indicators, but the goals may be directional in nature or the measure may only need to be monitored, and University action alone is not likely to significantly influence the measure. The board's intent is to monitor these measures on a regular basis to assess University progress in these important areas.

All of these Progress Card measures are connected to and more deeply informed by the broader discussion of performance and accountability found in the rest of this report. See page 6 for the current Progress Card and Appendix E for data definitions.

Major, University-level Accountability Activities

Senior leaders engage in reporting, communications, and other activities that address the University's accountability responsibility. Select examples include:

- The president's annual State of the University address;

- Government & Community Relations reports on the University's economic impact by county and legislative district (govrelations.umn.edu/footprint/);

- Annual report of University research activity (www.research.umn.edu/news/reports.html);

- Annual accounting of student services fee allocations (www.studentservicesfees.umn.edu);

- Public Engagement reports (www.engagement.umn.edu/our-impact/reports);

- Institutional success and demographic data managed by the Office of Institutional Research (www.oir.umn.edu);

- Annual reports on real estate, sustainability, capital planning, and project management;

- Annual updates on energy management and utilities and facilities condition and utilization;

- Survey findings, including citizen, alumni, student, and employer satisfaction;

- University participation in higher education consortia, such as the Association of American Universities, Association of Public and Land-grant Universities, American Council on Education, and Big Ten Academic Alliance.

Office and Program Reports

In addition to the major reports prepared by senior leaders for the Board of Regents and other audiences, offices and programs across the University produce reports or other accountability communications for an array of stakeholders. These include reports by University research centers, key administrative or student services areas, and annual reports to donors.

Government and Other External Organization Requirements

The University provides a number of reports to the Minnesota Legislature and other organizations, including:

- Biennial Report to the Minnesota State Legislature, which showed that the University had exceeded all performance measures set forth by the Minnesota Legislature for fiscal year 2015;

- Postsecondary Planning: A joint report to the Minnesota Legislature by Minnesota State and University of Minnesota;

- Compliance reports to such agencies as the U.S. Department of Education, National Science Foundation, National Institutes of Health, U.S. Department of Agriculture, National Collegiate Athletic Association, University Institutional

Review Board, City of Minneapolis, Hennepin County, and Minnesota Office of Higher Education;

- Testimony to local, state, and federal governments;
- Assessment and evaluation reports to philanthropic foundations.

Institutional and Program Accreditation

One tool that holds the University accountable for academic quality is accreditation. Accreditation is the process of assuring and advancing the quality of higher education institutions' campuses, departments, and programs through reviews by outside agencies. Two types of accreditation, with varied breadth, apply to the University.

The first type of accreditation reviews an entire higher education institution and its programs for quality. Each University of Minnesota campus operates with full accreditation at the institutional level by the Higher Learning Commission.

The Crookston, Rochester, and Twin Cities campuses were reviewed by the Higher Learning Commission in 2015, and were granted continued accreditation status. Among their reports, the reviewers stated that the University is "well supported by the Board of Regents," that faculty are "deeply engaged in scholarship, teaching, and service," and that "all sectors of the University are firmly committed to continuous improvement based on the results of internal and external evaluation processes."

The second type of accreditation involves evaluations by a specialized accrediting body associated with a national professional organization or with a specific discipline. At the University, over 200 academic programs are accredited by bodies such as the American Bar Association, Accreditation Board for Engineering and Technology, National Association of Schools of Music, National Council for Accreditation of Teacher Education, and Accreditation Council for Graduate Medical Education.

To learn more about both types of accreditation at the University, see provost.umn.edu/accreditation.

Media and the General Public

Media organizations, such as the *Minnesota Daily*, *Pioneer Press*, *Star Tribune*, and MPR News, play an important role in holding the University accountable. The Minnesota Data Practices Act is a set of laws designed to ensure that the media and members of the general public have access to public records of government bodies at all levels in Minnesota. This access positions other parties to engage the University, to raise questions, and to verify information.

The University Plan, Performance, and Accountability Report

As noted earlier, Board of Regents operations policy identifies this report as one of three fundamental accountability and planning documents. It reports on the University's effectiveness in fulfilling its mission, while the operating and capital budgets report on the University's fiscal management.

Specifically, the University Plan, Performance, and Accountability Report:

- articulates the mission and vision of the University;
- identifies critical issues and challenges confronting the University;
- illustrates and analyzes longitudinal trends in key areas;
- provides a means for comparisons with peer institutions; and
- identifies areas for continued work.

The pages that follow align with and connect to the mission of the University. Chapter 3 describes some of the planning under way at each campus to ensure future success and excellence. Chapters 4, 5, and 6 discuss the University's effectiveness in fulfilling the fundamental land-grant mission of teaching, research, and outreach. Chapters 7 and 8 address the University's effectiveness in supporting that mission by employing world-class faculty and staff and stewarding an outstanding organization.

University Progress Card

Gold Measures

Entering Year	Campus	2010	2011	2012	2013	Goal/Year	See page
4-year graduation rate	Crookston	42.5%	44.5%	46.5%	46.2%	45%/2017 cohort	59–60
	Duluth	38.2%	39%	38.9%	40.9%	45%/2017 cohort	47–48
	Morris	53.4%	52.6%	54.3%	48.9%	60%/2017 cohort	53–54
	Rochester	50%	63.1%	56.4%	60%	60%/2017 cohort	64–65
	Twin Cities	60.9%	63.3%	65.2%	68.4%	65%/2017 cohort	41–42
Entering Year		**2008**	**2009**	**2010**	**2011**	**Goal/Year**	
6-year graduation rate	Crookston	51.7%	48.4%	56.7%	58.9%	60%/2015 cohort	59–60
	Duluth	65.5%	66.5%	64.7%	65.1%	68%/2015 cohort	47–48
	Morris	73.5%	68.1%	69.1%	64.1%	80%/2015 cohort	53–54
	Rochester	NA	60%	62%	69.4%	60%/2015 cohort	64–65
	Twin Cities	78.7%	77.6%	78.9%	80.6%	82%/2015 cohort	41–42
Entering Year		**2010**	**2011**	**2012**	**2013**	**Goal/Year**	
4-year graduation rate of Pell-eligible students	System	43.9%	45.4%	47.4%	50.9%	54%/2017 cohort	33
		2014–15	**2015–16**	**2016–17**	**2017–18**	**Goal**	
Freshman average ACT	Twin Cities	27.9	28.2	28.3	28.4	>28.0	38
		2012–13	**2013–14**	**2014–15**	**2015–16**	**Goal/Year**	
Institutional gift aid	System	$216M	$223M	$233M	$246M	$275M/2021	34
		FY2013	**FY2014**	**FY2015**	**FY2016**	**Goal/Year**	
R&D expenditures	Twin Cities	$858M	$877M	$881M	$910M	$900M/2021	85
		FY2013	**FY2014**	**FY2015**	**FY2016**	**Goal/Year**	
Medical School ranking	Twin Cities/ Duluth	27	30	32	34	Top 20/2021	78
		2010–11	**2011–12**	**2012–13**	**2013–14**	**Goal/Year**	
Faculty awards N and (Rank: Public Universities)	Twin Cities	25 (10th)	33 (5th)	32 (6th)	26 (8th)	35+ (Top 10)/2021	105
		2013	**2014**	**2015**	**2017**	**Goal/Year**	
% Participation in Employee Engagement Survey	System	57%	64%	67%	71%	72%/2021	104
		FY2014	**FY2015**	**FY2016**	**FY2017**	**Goal/Year**	
Op-Ex—continued progress on $90M	System	$18.8M	$40.4M	$57.8M	$68.4M	$90M/FY19	111

Maroon Measures

| Strategic Focus	Campus	Performance Drivers/Outcomes	2011	2012	2013	2014	Goal	See page
Undergraduate Education	Twin Cities	Transfer student 3-year graduation rate	62.5%	61.4%	62.4%	64.6%	>65%	38
			2013–14	2014–15	2015–16	2016–17	Goal	
Graduate Education	Twin Cities/ Duluth	Graduate and professional degrees awarded	5,294	5,305	5,184	5,372	>5,250	2
			2012–13	2013–14	2014–15	2015–16	Goal	
Financial Accessibility	System	Median undergraduate debt at graduation	$24,880	$24,854	$24,776	$24,645	Grow no faster than CPI; Correct for federal/state policy changes	34
			2013	2014	2015	2017	Goal	
Inclusive Success	Twin Cities	Students of color with a favorable sense of belonging on campus (SERU survey)	59.2%	57.5%	57.3%	52.3%	Match non-SOC response (currently 65.4%)	38
			2013	2014	2015	2016	Goal	
Serving Minnesota Students	System	Percent of incoming new (and all currently enrolled undergraduate) students who are Minnesota high school graduates	72.3% (71.9%)	71.0% (71.4%)	70.0% (71.0%)	70.6% (71.1%)	Maintain historical access	34
	System	Percent of Minnesota high school graduates that elect to attend college in Minnesota and enroll at the University as freshmen	16.2%	16.7%	16.6%	18.7%	Maintain historical access	34
			2013–14	2014–15	2015–16	2016–17	Goal	
Health Sciences	Twin Cities/ Duluth/ Rochester	Enrollment in in-demand health science specialities (Nursing, Pharmacy, Dentistry)	2,000	2,051	2,085	2,072	>2,100	79
	Twin Cities/ Duluth/ Rochester	Total combined fall enrollment in Academic Health Center schools and AHC Center for Allied Health	6,292	6,194	6,198	6,316	>6,350	79
			2013–14	2014–15	2015–16	2016–17	Goal	
Research	Twin Cities	National public research ranking	9	8	8	8	Maintain top 10	85
	System	MN-IP agreements	51	69	81	72	10% annual growth	91
			2012–13	2013–14	2014–15	2015–16	Goal	
Land Grant Mission	System	Public service expenditures	$249M	$253M	$248M	$258M	>$245M	97
			2011–12	2012–13	2013–14	2014–15	Goal	
Academic Excellence	Twin Cities	Citations per faculty member	127	126	124	133	>125	85
			2000–05	2005–10	2010–15		Goal	
	System	National scholarships awarded to students		31	52	75	>80 from 2015–2020	34
			FY2013	FY2014	FY2015	FY2016	Goal/Year	
Operational Excellence	System	Spending on leadership & oversight vs. mission and mission support (%)	8.3%	8.1%	8.1%	8.3%	Decrease over time	111
	System	GSF in poor or critical condition (facility condition assessment)	7.61M	7.73M	8.32M	8.43M	Decrease over time	112
	System	Sustainability—Metric tons of greenhouse gasses (2008 base level: 703,311)	626,599	603,504	592,269	571,595	50% reduction from 2008 levels by 2021 (351,656)	112
	System	Credit rating	Aa1	Aa1	Aa1	Aa1	Maintain per Board policy	110–111
			2003–06	2004–07	2005–08	2006–09	Goal	
Athletics	Twin Cities	Graduation Success Rate (GSR)	83.6%	86.2%	88.2%	90.4%	Maintain recent gains	42

Planning for Success

The distinctiveness of the University's five campuses and the comprehensive and distributed nature of the system allow the University of Minnesota to be greater than the sum of its parts. Each campus has an indvidual history and strategy for contributing to the University's mission and vision in the way that best serves its students, the region, and the state. Together, the Crookston, Duluth, Morris, Rochester, and Twin Cities campuses encompass a rich variety of academic departments and degree programs, all of them essential components of the University system.

In fall 2017, President Kaler charged a Systemwide Strategic Planning Oversight Committee (SPOC) to lead the development of system priorities in focus areas that align with the University's mission and Systemwide Strategic Framework: Teaching & Learning; Research & Discovery; Outreach & Public Service; Medicine & Health; and Supporting the Mission.

This work will build on last year's efforts to develop the framework, approved by the Board of Regents in June 2017. While the first phase highlighted ways to better connect, leverage, and align the system's distinctive statewide resources, the 2017–2018 efforts will focus on the development of an academic program investment strategy and a long-term financial framework. Kaler has asked the SPOC to promote diversity and inclusive excellence across all focus areas in development of the Systemwide Strategic Plan.

The strengths of each campus complement one another and contribute to meeting the educational and workforce needs of the state. The following sections summarize how each campus is planning for success in achieving the University's mission summarized on page 1. Links to comprehensive campus strategic planning documents are listed in Appendix A.
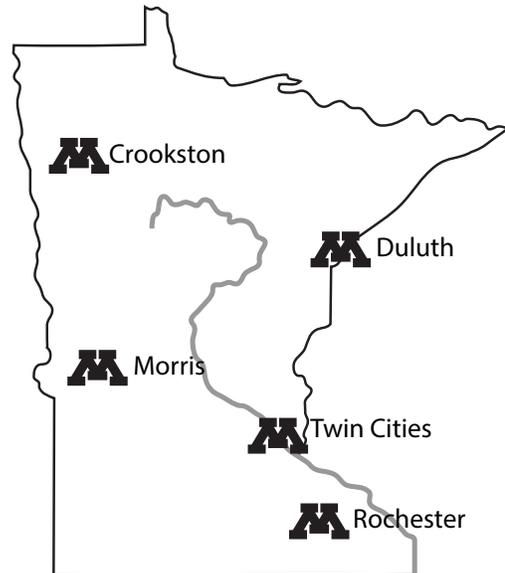
Twin Cities Campus

Founded
1851

Leadership
Eric W. Kaler, President
Karen Hanson, Executive Vice President and Provost

Colleges and Schools
Carlson School of Management
Center for Allied Health Programs
College of Biological Sciences
College of Continuing and Professional Studies
College of Design
College of Education and Human Development
College of Food, Agricultural and Natural Resource Sciences
College of Liberal Arts
College of Pharmacy
College of Science and Engineering
College of Veterinary Medicine
Humphrey School of Public Affairs
Law School
Medical School
School of Dentistry
School of Nursing
School of Public Health

Degrees/Majors Offered
150 undergraduate degree programs; 183 master's degree programs; 108 doctoral degree programs

Student Enrollment (Fall 2017)

Undergraduate	31,535	(61%)
Graduate	12,525	(24%)
Professional	3,508	(7%)
Non-degree	4,191	(8%)
Total	**51,759**	

Employees (Fall 2017)

Direct Academic Providers	6,943	(29%)
Fellows, Trainees, and Students in Academic Jobs	6,258	(26%)
Higher Education Mission Support	3,903	(16%)
Intercollegiate Athletics	137	(1%)
Facilities-related Jobs	1,355	(6%)
Organizational Support	4,573	(19%)
Leadership	986	(4%)
Total Employees	**24,155**	

Degrees Awarded (2016–17)

Bachelor's	7,807	(60%)
Master's	3,475	(27%)
Doctoral and Professional	1,682	(13%)
Total	**12,964**	

Campus Physical Size (2017)

Minneapolis

Number of Buildings	164
Assignable Square Feet	11,135,080

St. Paul

Number of Buildings	99
Assignable Square Feet	2,509,968

Budget Expenditures (FY2017)
$3.4 billion

Planning at the University of Minnesota Twin Cities

The Twin Cities campus is in year four of implementing "Driving Tomorrow," its ten-year strategic plan to accelerate advancement of excellence and impact in research, teaching, and outreach.

Approved by the Board of Regents in fall 2014, the plan builds on the strengths of the campus as Minnesota's globally engaged research university and one of few major land-grant research institutions situated in a major metropolitan area. The plan recognizes the special opportunities and responsibilities the campus has to innovate and lead through transformative research and teaching engaged with the most pressing and complex challenges of the state of Minnesota and the world.

The plan frames many actions the campus will take over the next decade to fulfill its distinctive responsibilities as Minnesota's land-grant university, dedicated to serving the public good; and as the state's designated research institution, charged with positioning Minnesota at the forefront of emerging knowledge and educating highly skilled workers, professionals, leaders, and global citizens to thrive in a diverse and changing world.

Strategic Priorities

The Twin Cities campus strategic plan was developed with broad input by a campus-wide work group and extended teams of faculty, staff, and students. The plan includes four supporting goals for advancing the quality, impact, and reputation of the University's flagship research campus. Many initiatives and collaborations are under way to implement the plan across the four goal areas:

- **Build an exceptional university that leverages its research and curricular strengths for powerful impact on grand societal challenges.** Develop and support more ambitious and innovative collaborations across disciplines as well as through new learning and career pathways that prepare students to be outstanding leaders, innovators, and global citizens.

- **Reject complacency to foster an invigorated campus culture of ambition, challenge,**

exploration, and innovation. Create a more nimble and integrative university to better serve our students and state; support highest expectations in all aspects of our mission.

- **Recruit and retain the best field-shaping researchers and teachers spanning diverse disciplines and backgrounds.** Make Minnesota a magnet for diverse high achievers and innovators who will advance excellence in research, outreach, and engagement and provide world-class educational experiences for graduate, professional, and undergraduate students.

- **Capitalize on the campus's unique location and its global reach to build a culture of reciprocal engagement.** Expand partnerships and shared purposes to benefit the state and our students, strengthen community, and deepen Minnesota's connections around the globe.

Implementation Steps and Progress

To implement the plan as a broad-based framework for institutional reinvigoration, the campus has made its goals central to the compact planning and budget planning processes that shape academic directions and strategic investment decisions. Colleges and departments across the campus are working in a variety of ways to align and integrate the plan with core research, teaching, and outreach activities. The plan's strategic priorities have also been incorporated into work plans in the central administrative areas of undergraduate education, graduate and professional education, faculty and academic affairs, student affairs, equity and diversity, human resources, and others.

Collaborations during the first years of implementation have yielded specific campus accomplishments across the four goal areas, and progress has been made on larger institutional transformations.

Curricular and Research Transformations

The campus has placed special emphasis on jumpstarting curricular and research goals as key components of the larger vision for institutional reinvigoration and excellence. To more powerfully marshal exceptional research strengths spanning multiple disciplines, a slate of priority "Grand Challenges" has been established through a faculty-

driven process. Criteria include global impact and local relevance, extent of existing faculty strength and leadership, disciplinary diversity, interconnection with education and external partners, and other criteria outlined in the strategic plan. The slate of challenges highlights five areas where the University is positioned for great impact: assuring clean water and sustainable ecosystems; fostering just and equitable communities; enhancing individual and community capacity for a changing world; feeding the world sustainably; and advancing health through tailored solutions.

The Provost's Grand Challenges Research Initiative has reallocated internal resources to expand ambitious research collaborations in these areas. Phase 1, announced in fall 2016, invested a total of $3.6 million in 29 team projects aimed at strengthening food sustainability, closing health disparities, mitigating water pollution, promoting healthy child development, and addressing other critical issues. The teams spanned nearly 200 researchers and scholars across 17 colleges and schools, along with external partners. Phase 2, announced in fall 2017, made internal investments of $3.7 million for six large-scale research projects and two innovative research collaboratives focusing on challenges in two spotlighted areas, assuring clean water and sustainable ecosystems and fostering just and equitable communities. These collaborations will provide learning and research opportunities for undergraduate and graduate students, strengthen opportunities for competitive outside funding, and lead to new strategies to support and sustain innovative and ambitious research benefiting students and the public.

The Driving Tomorrow investments are synergistic with the systemwide strategic research goals of the Office of the Vice President for Research and complement publicly engaged work already under way at the University, such as MnDRIVE initiatives on food and the environment, Academic Health Center initiatives, and interdisciplinary collaborations to foster vibrant communities. The expanded initiatives also dovetail with ongoing efforts by colleges and departments to build productive collaborations across structural and disciplinary boundaries.

A Grand Challenges Curriculum also has been launched, with courses focusing on foundational competencies students can apply across a range of topics. The solution-driven courses, team taught by cross-disciplinary instructors, immerse students in the critical thinking and discovery that are central to the University's educational mission. The innovative courses address issues with both local and global relevance and integrate diverse expertise, methods, and perspectives. Topics have ranged from fracking to global hunger to reconciliation and justice.

The undergraduate-level Grand Challenge courses are constructed to fulfill one of the current liberal education theme requirements (civic life and ethics, diversity and social justice, environment, global perspectives, technology and society). Along with the development of related minors and theme courses, the Grand Challenges Curriculum opens up important learning and career opportunities for students. These curricular innovations also will inform faculty consideration of new approaches to liberal education requirements.

Ongoing and Emerging Initiatives
In addition to making progress on curriculum and research goals, the campus is moving forward to achieve the other components of the plan. Priority initiatives focus on strongly supporting faculty excellence across the career span; building a broad-based public engagement agenda; advancing equity, diversity, and a vibrant and inclusive campus community; and strengthening opportunities and practices that harness the full collaborative potential of a comprehensive research campus.

The strategic plan for the Twin Cities campus will be connected with the plans of the Crookston, Duluth, Morris, and Rochester campuses as part of the overarching strategic framework for the excellence of the University of Minnesota system. University leaders will continue to engage both campus and external stakeholders in discussing progress toward goals and in refining the framework as a dynamic roadmap for the future.

Comparison Group Institutions
To assist with campus planning and assessing success, the Twin Cities campus has identified ten public research universities for primary comparison. While these institutions are among the most similar in size and complexity to the Twin Cities campus and the

best available for comparison, the institutions have significant differences that should be noted. Table 3-1 shows the variance among the eleven schools across type, scope, size, and students.

Notably, the Twin Cities campus comparison group includes the very best public research universities in the United States. In using this peer group as a benchmark, the University intentionally measures itself against the highest standards in the nation.

Table 3-1. Comparison group institutions, Twin Cities campus

Institution	TYPE			SCOPE Institution Includes:				SIZE Enrollment (9)		Faculty (10)	R&D (11)	STUDENTS ACT 25th-75th Percentiles (12)	Percent in-state (13)
	Land Grant	City Size (2)	State Pop. (3)	Agricult. College	Law School	Med. School	Hospital	Under-grad.	Grad. & Prof.				
Ohio State U.–Columbus	●	Large	11.5	●	●	●	●	58,663 / 41,131	13,374	2,386	$818	26.7-31.0	69%
Penn. State U.–University Park	●	Small	12.7	●	○(4)	○(5)	○(5)	47,307 / 40,179	6,565	1,608	$828	24.2-29.0	NR
U. of California–Berkeley	●(1)	Mid-size	37.3		●			38,189 / 27,496	10,693	1,381	$774	28.8-34.0	70%
U. of California–Los Angeles	●(1)	Large	37.3		●	●	●	41,908 / 29,581	12,323	1,688	$1,038	26.8-33.0	73%
U. of Florida–Gainesville	●	Mid-size	18.8	●	●	●	○(6)	50,645 / 32,376	17,243	1,981	$791	26.4-30.4	84%
U. of Illinois–Urbana-Champaign	●	Small	12.8	●	●	●	○(7)	45,842 / 32,170	12,474	1,799	$625	26.5-31.5	73%
U. of Michigan–Ann Arbor		Mid-size	9.9		●	●	●	43,651 / 28,120	15,339	2,744	$1,436	29.0-33.2	58%
U. of Minnesota–Twin Cities	●	**Large**	**5.3**	●	●	●	○(6)	**50,678 / 30,511**	**16,607**	**2,191**	**$910**	**26.0-31.2**	**63%**
U. of Texas–Austin		Large	25.1		●	○(8)	○(8)	50,950 / 39,057	11,331	1,855	$622	26.0-32.0	87%
U. of Washington–Seattle		Large	6.7		●	●	●	45,408 / 30,022	14,345	2,554	$1,278	24.6-31.0	63%
U. of Wisconsin–Madison	●	Mid-size	5.7	●	●	●	●	42,716 / 29,579	11,725	1,982	$1,158	26.8-31.2	57%

1 The U.C. System is the land-grant university of California.
2 City size estimates, U.S. Census Bureau, 2010.
3 State population in millions, U.S. Census Bureau, 2010.
4 The Penn State U. Law School is located on the Dickinson campus.
5 The Penn State U. Medical School is located on the Hershey campus.
6 Hospital affiliated with but not owned by campus.
7 The U. of I. Medical Center is located on the Chicago campus.
8 The U. of T. medical programs are located on several other campuses.
9 Fall 2015 enrollment. Total enrollment includes non-degree-seeking students; undergraduate enrollment includes only degree-seeking students. Integrated Postsecondary Data System.

10 Fall 2015 full-time instructional faculty that are tenured/tenure track. Integrated Postsecondary Education Data System.
11 Fiscal year 2016 higher education R&D expenditures in millions. National Science Foundation, Higher Education Research Survey.
12 Fall 2015 ACT test scores of first-time degree-seeking students; SAT scores were converted to ACT scores using the College Board ACT and SAT Concordance. Integrated Postsecondary Education Data System.
13 Fall 2015 percentage of first-time undergraduates who are state residents; residency is required reporting in even years. Integrated Postsecondary Education Data System.
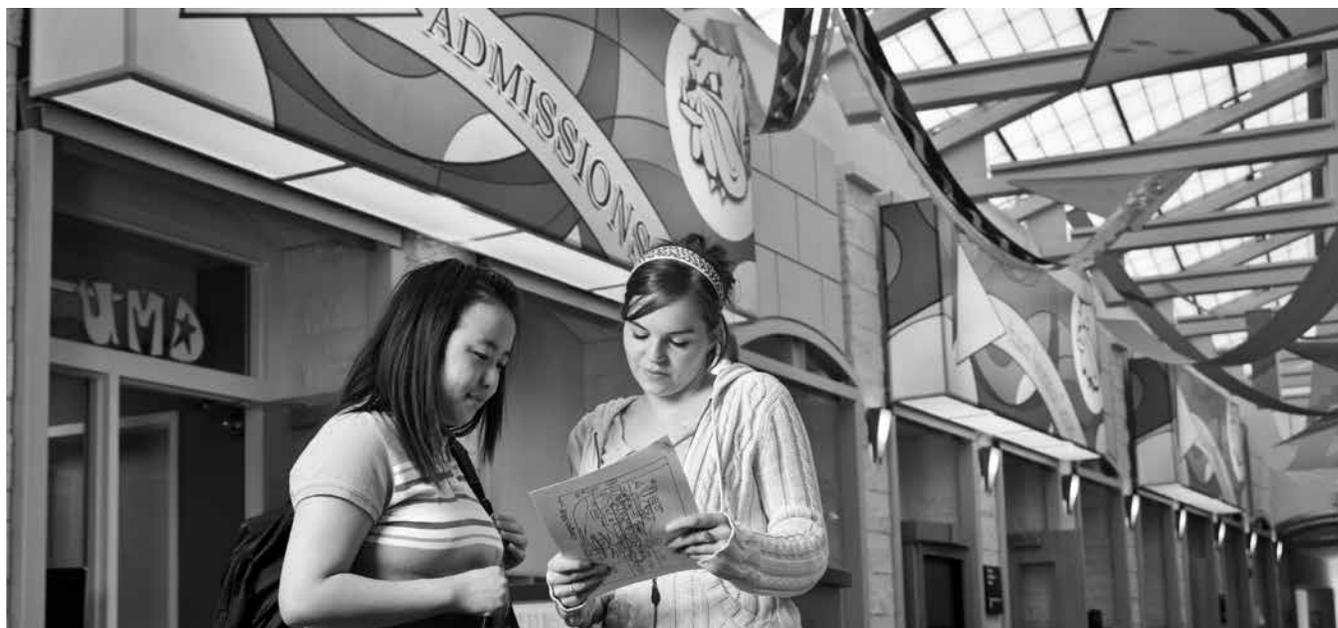
Duluth Campus

Founded

1895—State Normal School at Duluth
1921—Duluth State Teachers College
1947—University of Minnesota Duluth

Campus Leadership

Lendley (Lynn) Black, Chancellor

Colleges and Schools

College of Education and Human Service Professions
College of Liberal Arts
Continuing Education
Labovitz School of Business and Economics
School of Fine Arts
Swenson College of Science and Engineering

Academic Partnerships

College of Pharmacy
Medical School

Degrees/Majors Offered

14 bachelor's degrees in 92 majors; two-year program at the School of Medicine and College of Pharmacy; 25 graduate programs; participates in three all-University doctoral programs

Student Enrollment (Fall 2017)

Undergraduate	9,199	(82%)
Graduate	669	(6%)
Professional*	352	(3%)
Non-degree	948	(8%)
Total	**11,168**	

*Granted by Twin Cities campus, delivered at Duluth campus.

Employees (Fall 2017)

Direct Academic Providers	670	(35%)
Fellows, Trainees, and Students in Academic Jobs	246	(13%)
Higher Education Mission Support	275	(14%)
Intercollegiate Athletics	47	(2%)
Facilities-Related Jobs	175	(9%)
Organizational Support	412	(22%)
University Leadership	79	(4%)
Total Employees	**1,904**	

Degrees Awarded (2016–17)

Bachelor's	1,902	(90%)
Master's	196	(9%)
Doctoral	5	(<1%)
Total	**2,103**	

Campus Physical Size (2017)

Number of Buildings	81
Assignable Square Feet	1,889,383

Budget Expenditures (FY2017)

$270 million

Planning at the University of Minnesota Duluth

Strategic Planning

The University of Minnesota Duluth (UMD) Strategic Plan approved in 2011 is the product of a campus-wide, collaborative process involving faculty, staff, and students as well as Duluth community leaders. Through that process, the campus developed a revised mission, vision, core values, and six major goals. Since 2011, UMD's Strategic Plan has served as a roadmap to focus campus efforts on key priorities.

In recognition that the campus and the external environment have changed in recent years, UMD began a process in spring 2017 to review and renew the campus strategic plan. This process involved the input of administrators, faculty, and staff across campus within three primary sets of activities: 1) reflecting upon the current strategic plan, 2) analyzing the internal and external environments, and 3) visioning toward the future.

Reflecting on the Current Plan

Reflections of what the campus learned from the development and implementation of the 2011 Strategic Plan were used to identify positive qualities and areas for possible improvement. First, results from a campus-wide employee survey showed the six campus goals remain relevant and important. Second, input from focus group sessions and interviews of individuals and groups directly involved in the 2011 planning process and other strategic initiatives generated additional insights. The responses reinforced the importance of clearly articulated action plans, ongoing communications to the campus, and establishment of performance indicators as part of the strategic plan.

This process of critical reflection and continuous improvement served as a primary component of UMD's Quality Initiative under the Open Pathway requirements for Higher Learning Commission accreditation. The Quality Initiative Report was submitted in August 2017 in preparation for the campus's comprehensive review scheduled for April 2018. The report demonstrates that UMD is a data- and evidence-driven institution, committed to continuous quality improvement and the serious engagement in examining programs and services to optimize their impact and focus campus resources to best serve students and campus constituencies. Evidence of this includes the budgeting and allocation process that increasingly tracks enrollment trends and the redistribution of resources to serve students in more precise ways to assure their persistence and success across all five of UMD's academic colleges.

Analyzing Environments

During the spring semester, a task force conducted an environmental analysis based on current data and emerging trends to identify UMD's strengths and weaknesses as well as potential opportunities and threats. The task force, led by a senior member of the Management Studies faculty, included representation from all vice chancellor divisions as well as faculty and staff governance representatives. The report identified several opportunities to build upon UMD's strengths.

Visioning the Future

Faculty and staff from across campus attended open forums in April 2017 to generate ideas for a new campus vision and strategic objectives. Primary themes that emerged from the sessions include an ongoing interest in experiential and active learning approaches to undergraduate and graduate education, a focus on the environment surrounding UMD, and a commitment to partnering with external constituents to make a positive difference in our community. A key theme that emerged is that UMD has considerable strengths as a regional asset across many sectors, including the arts, community development, and economic development.

The shared-governance Strategic Planning & Budget Committee will review the reports and input summarized above to generate recommendations, and an updated strategic plan will be finalized by the end of the fall 2017 semester. This plan will guide campus decision-makers for the next three to five years on key initiatives, including program prioritization and academic program optimization.

Program Prioritization

UMD is engaging in a formalized program prioritization process during the 2017–18 academic year to review the demand, resources, opportunities, and challenges for each undergraduate major, graduate program, and credit-bearing certificate. Campus objectives include strategically strengthening the educational program array; positively impacting student enrollment, persistence, and completion rates; and reallocating resources in a fiscally responsible manner.

Data from the most recent eight years will be used to evaluate trends in enrollment and student credit hours as well as cost of instruction. Additional data will be used to evaluate external demand through alignment with the campus's student profile and the needs of the region and state. Program prioritization results will identify at-risk academic programs that could be discontinued and programs that have growth potential for possible future investments.

The prioritization process will yield key data points that will populate an institutional dashboard and allow the campus to more readily assess progress towards benchmarks and make critical decisions about resource deployment and areas of emphases.

Academic Program Development and Optimization

As an extension of program prioritization, increased attention is being paid to the development of new programs. Enhancing due diligence in creating programs ensures collegiate units make strategic requests that align with their current resource base. The process requires greater intentionality to identify academic programs that better serve the region and the state as part of the University system. The process also recognizes that in instances where new resources are not available, implementing a new program may require discontinuing another.

Program optimization is a set of ongoing activities designed to enhance the efficiencies of existing academic programs. A challenge of optimization will be to move through current practices that do not serve the best interest of students, the department, the collegiate unit, and/or the campus. However, taking a broad stakeholder approach and considering

the needs of multiple groups allows decision-makers opportunities to improve their programs and fulfill UMD's obligations to provide high-quality education and attain performance goals.

Building Academic Quality and Rigor

In reviewing UMD's academic programs, several themes have emerged. The campus has many high-quality undergraduate and graduate programs. This perception was validated by external program reviews and disciplinary accreditation reviews. Graduate outcomes are key measures of the quality of UMD's academic programs. The employment rate for graduates of UMD remains in the very high 90th percentile, and external advisory boards rate UMD graduates' preparation, both academically and socially, very high.

An important feature of external advisory boards is engagement with professionals in various fields. UMD's academic colleges increasingly leverage their professional and academic networks to receive feedback on academic programs, learning outcomes, and the preparation of students. These interactions are part of the continuous quality-improvement culture and help the campus understand how to best deploy resources to develop and support academic programs that are intellectually strong, professionally relevant, and consonant with UMD's mission, vision, and strategic plan.

Comparison Group Institutions

For purposes of planning and assessment, the Duluth campus revised its peer list in recent years to include eleven higher education institutions as the primary group for comparison. These institutions are listed in Table 3-2 and were identified based on their similar academic programs, enrollment, degrees awarded, research activities, and their Carnegie Classification as Master's Medium Programs.

Table 3-2. Comparison group institutions, Duluth campus

	TYPE			SIZE	STUDENTS		
	Institutional Control	City Size	Highest Degree Offered	Total Enrollment[1]	Percent Degree-seeking Undergrads[2]	Percent Full-time[3]	Percent In-state[4]
CA Poly. State U.–San Luis Obispo	Public	Small	Master's	20,944	95%	96%	81%
Col. of Charleston	Public	Mid-size	Post-Master's Certificate	11,531	87%	95%	56%
Minnesota State U.–Mankato	Public	Small	Doctorate	15,313	80%	89%	NR
South Dakota State U.	Public	Small	Doctorate	12,576	78%	87%	55%
Southern Illinois U.–Edwardsville	Public	Mid-size	Doctorate	14,265	82%	85%	85%
U. of Mass.–Dartmouth	Public	Mid-size	Doctorate	8,916	79%	88%	95%
U. of Michigan–Dearborn	Public	Large	Doctorate	9,066	76%	71%	NR
U. of Minnesota–Duluth	**Public**	**Large**	**Doctorate**	**10,878**	**82%**	**95%**	**87%**
U. of North Carolina–Charlotte	Public	Large	Doctorate	27,983	81%	87%	92%
U. of Northern Iowa	Public	Mid-size	Doctorate	11,981	83%	91%	91%
Western Michigan U.	Public	Mid-size	Doctorate	23,529	77%	84%	87%
Western Washington U.	Public	Mid-size	Post-Master's Certificate	15,332	94%	92%	86%

[1]Fall 2015 enrollment. Total Enrollment includes non-degree-seeking students.
[2]Fall 2015 percentage of total enrollment composed of degree-seeking undergraduate students.
[3]Fall 2015 percentage of degree-seeking undergraduate students who are enrolled full time.
[4]Fall 2015 percentage of first-time students who are state residents; residency is required reporting biennially in even years.
Source: Integrated Postsecondary Data System

Morris Campus

Founded

1910—University of Minnesota, West Central School of Agriculture
1960—University of Minnesota Morris

Campus Leadership

Michelle Behr, Chancellor

Divisions

Education Division
Humanities Division
Science and Mathematics Division
Social Sciences Division

Degrees/Majors Offered

34 undergraduate degree programs; 9 pre-professional programs

Student Enrollment (Fall 2017)

Undergraduate	1,554	(96%)
Non-degree	73	(4%)
Total	**1,627**	

Employees (Fall 2017)

Direct Academic Providers	161	(37%)
Fellows, Trainees, and Students in Academic Jobs	1	(<1%)
Higher Education Mission Support	73	(17%)
Intercollegiate Athletics	24	(6%)
Facilities-Related Jobs	51	(12%)
Organizational Support	105	(24%)
University Leadership	16	(4%)
Total Employees	**431**	

Degrees Awarded (2016–17)

Bachelor's	367

Campus Physical Size (2017)

Number of Buildings	36
Assignable Square Feet	599,467

Budget Expenditures (FY2017)

$58 million

Planning at the University of Minnesota Morris

The Morris campus's strategic plan was approved through its governance system in 2007 and has served as a guiding framework for campus initiatives since then. In fall 2017, the campus began work on a new strategic plan—imagining and then creating the University of Minnesota Morris of the future. The recruitment and retention of talented students committed to a rigorous liberal arts environment is an important area of planning. Morris is also actively engaged in the University's Systemwide Strategic Planning work groups and processes.

Enrollment Goals

The Morris campus operates in a highly competitive market for undergraduate students, competing with private liberal arts colleges and other Minnesota public universities for undergraduate students. In this challenging environment, Morris has worked strategically to sustain its enrollment of about 400 talented new first-year students and 100 transfer students each year.

Morris campus enrollment planning includes exploration of multiple collaborations to increase student access to Morris, including transfer pathways and articulation agreements with local community colleges. Aligned with the Systemwide Strategic Plan Framework, the campus is seeking more intentional pathways from Morris into University of Minnesota professional and graduate degree programs as an undergraduate recruitment and retention strategy. Seventy-one percent of new Morris students indicate the intent to pursue post-baccalaureate study, and Twin Cities graduate and professional programs find Morris degree holders to be well prepared for such study.

The Morris campus has increased the number of American Indian students and students of color (now 31 percent of degree seekers) to provide a rich learning environment reflective of the growing diversity in Minnesota and the United States. Morris has also continued to increase and support the enrollment of international students (now eleven percent of the degree-seeking student population) to further diversify the student body as the campus prepares graduates to be global citizens.

National and International Profile

The Morris campus has elevated its national profile as a public liberal arts college; this is evidenced by national rankings and by its receipt of several prestigious and highly competitive grants—a Howard Hughes Medical Institute Grant to promote the success of students in biology; a foundation grant to develop a leadership program with an emphasis on sustainability; and three multi-year U.S. Department of Education awards: TRIO Student Support Services and Ronald E. McNair Post-Baccalaureate Achievement Program grants as well as a Native American Serving Non-tribal Institutions grant.

In addition, the Morris campus has become a national leader in sustainability—a model community for renewable energy and sustainable living. The campus is striving to achieve the goal of carbon neutrality by 2020, primarily through the on-site generation of heat and power. In 2015, the Morris campus was named by the U.S. Environmental Protection Agency as a top-30 national organization for the on-site generation of power. On average, 70 percent of campus electricity comes from two industrial-scale wind turbines on the Pomme de Terre riverbank overlooking the campus; the combined heating and cooling system uses local biomass to heat and cool the campus and puts money back into the local economy. Solar panels warm the recreational swimming pool and provide energy required for the new Green Prairie Community residence hall. A recent grant addresses the next frontier of renewables by exploring large-scale storage for wind- and solar-produced energy.

With the support of the University's Institute on the Environment and the Minnesota Department of Trade, the Morris campus's leadership in building model platforms for sustainability and on-site generation of renewable energy is increasingly recognized internationally. The campus and Morris community are founding members of the Climate Smart Municipalities project, an international program linking five Minnesota cities to five German cities. The partnership between the city of Morris and the city of Saerbeck in North Rhine Westphalia, Germany, allows leaders to share ways to build a more sustainable future. In summer 2017, the partnership between the Morris campus, the Duluth campus, and the Institute on the Environment resulted in an energy

storage learning tour of the west coast with leadership from the State of Minnesota's Public Utilities Commission, Department of Commerce, Pollution Control Agency, and Department of Administration. These projects have led to national and international conference presentations.

Resilient Communities

The Morris campus, West Central Research and Outreach Center, and other University of Minnesota partners are working with the city of Morris and Stevens County to expand the sustainable and renewable energy platforms piloted on campus into the Morris community. Development of the Morris Model, a small city plan for building a future of self-sufficiency and resiliency, will demonstrate to other communities the path towards a more responsive and carbon-reduced future. From distributed energy platforms to a new partnership with the Morris Area schools that expands the campus composting initiative, Morris is planning for a sustainable future.

Facilities Renovation

21st-century learning on a historic campus: The core of the Morris campus is designated as a National Historic District, which recognizes the nation's only remaining intact campus from an experiment to offer agricultural boarding high schools in rural areas from 1910 to the 1960s. While many of the Morris campus's historically significant buildings have been updated to beautifully serve the liberal arts campus's current mission, others pose maintenance and improvement challenges. Many are in "critical" condition according to the University's facility analysis. The Morris campus has crafted a plan that combines campus resources, HEAPR funds, and repair and renovation funds to begin incremental modifications of some of these buildings, including HVAC upgrades and the recent addition of an elevator for greater accessibility.

21st-century library: Constructed in 1967, the Morris library remains virtually unchanged and is in need of dramatic renovation to improve access, to recognize the shift from print to digital sources, and to meet the unique needs of 21st-century learners. The campus has completed a predesign plan to transform the library into a learning commons, which would provide a technology-rich environment for students that supports collaboration and creativity.

Wellness center: The Morris Physical Education Center was built in 1970 prior to the adoption of Title IX, at a time when only men's sports were emphasized. The facility is not able to support the many female and male athletes who participate in the Morris campus's 19 NCAA Division III sports programs, and it does not compare favorably to facilities of peer institutions, conference competitors, or other colleges considered by prospective students. A pre-design shows the promise of a renovated facility and new fieldhouse addition to meet Title IX requirements, support student recruitment and persistence, refocus on student wellness and success, and better serve the region.

Expanding the Living/Learning Laboratory

West Central Minnesota provides a rich laboratory for finding solutions to a number of "grand challenges" that face the region and the nation. From invasive species to the impact of climate change to sustainable agriculture, the size and location of the Morris campus positions it as a resource to address these issues. With private support, the Morris campus has completed preliminary work for the creation of an outdoor classroom. In recognition of Morris's national leadership in sustainability and environmental education, a recent gift of 140 acres in Ottertail County provides another opportunity for research, reflection, and discovery dedicated to environmental stewardship. This space, named the Ecostation, will foster a culture of exploration and innovation while helping students develop an appreciation of and respect for the environment.

Faculty Recruitment and Retention

Morris is a destination for faculty who believe in the University of Minnesota's mission and vision and who care deeply about undergraduate students. Morris faculty members have been significantly assisted by systemwide resources that have supported their research and helped them address the relative distance of Morris from major research facilities and the airport. These resources have proven a major factor in recruiting and retaining faculty, as has the systemwide pre-doctoral diversity fellowship, which has helped to diversify the faculty. Recruitment and retention of American Indian faculty and faculty of color remain a priority as the diversity of Morris faculty and staff

lags behind that of its diverse student population. The campus continues to prioritize the development of community among existing faculty, 30 percent of whom were hired in the last decade.

Student Retention Initiative

The Morris campus's value proposition is strong, supported by the campus's place in the market alongside much more expensive private liberal arts colleges and by the advantages of being part of the University of Minnesota system. Retaining new students and moving them toward graduation are among the campus's highest priorities. Morris staff and faculty have worked tirelessly to bolster first-year student engagement, success, and persistence. In spite of these efforts, recent first-to-second-year retention rates have fallen short of the campus's 90 percent goal. In fall 2017, Morris will begin a multi-year campus-wide effort focused on increasing first-year student retention. The three components of the initiative are: conducting a systematic, integrated assessment of the large suite of existing first-year retention efforts; utilizing University system resources to develop and implement a new program and service model to foster student mental health and wellbeing; and making participation in high-impact practices—a hallmark of the Morris experience—more explicit, available, and accessible to first-year students. These efforts jointly address known risk factors and areas of promise for student learning, success, and persistence.

The Morris campus's recent support for retention, enrichment, and mental health initiatives includes:

- securing system funding to support a new model for engaging students to foster **greater mental health and wellbeing** (2017);

- appointing a **Retention Working Group** (2017);

- expanding **New Student Orientation** from three to four days and adding academic content (2017);

- piloting a **student employment initiative** based on data showing a ten percent increase in student persistence for those who work on campus in their first year (2016);

- providing **student success coaches** (piloted 2012–2015 with students from historically underrepresented populations and expanded to all students in 2016);

- creating and implementing the student leadership development program **Morris LEADS** (2016);

- adding time with **faculty academic advisors** during Orientation (2016);

- securing a **TRIO Student Support Services project** to close achievement gaps for first-generation, low-income students (2015);

- creating a **Native American Student Success program** with U.S. Department of Education grant funds (2015);

- establishing a faculty and staff fellows group to create a **Sustainability Leadership certificate** (2015);

- enhancing **communication materials** for new students and their families (2015);

- changing the **advisor assignment process** for students not yet committed to a major (2015);

- increasing coordination across academic advising, academic assistance, disability services, and retention support by creating the **Office of Academic Success** (2015);

- fostering more personal relationships with peers, advisors, and faculty by implementing **peer mentoring** for first- and second-year stdents and those most at risk (2013–2015);

- expanding data-analysis capacity by hiring a **Senior Director of Institutional Effectiveness** (2015);

- requiring small classes for all students in their first year through **Writing for the Liberal Arts** (2014) and **Intellectual Community** (2010) programs;

- incorporating more relevant information and activities in **New Student Registration** (2014);

- creation of the **Academic Center for Enrichment (ACE) Council**—faculty advocates for engagement in high-impact practices (e.g., study abroad, undergraduate research, honors) (2014);

- creating a **full-time study abroad advisor** position (2014);

- increasing **academic assistance capacity** (2014);

- increasing **disability resource center** capacity (2013);

- improving advisor training and peer support (**Faculty Master Advisor program**, 2012);

- providing more integrated student support (**One Stop**, established 2012); and
- implementing an **academic alert system** to capture and respond to faculty observations of at-risk student behaviors (2004, enhanced in 2011).

This initiative provides an opportunity to assess the efficacy of these efforts, and results will provide a foundation for enhancing and strengthening the first-year student experience on the Morris campus.

Comparison Group Institutions

For planning purposes, the Morris campus has identified 15 higher education institutions as its comparison group (Table 3-3). These comparable and aspirational peer institutions come closest to aligning with the Morris campus's distinctive identity as a public liberal arts college.

Table 3-3. Comparison group institutions, Morris campus

	TYPE			SIZE	STUDENTS		
	Institutional Control	City Size	Highest Degree Offered	Total Enrollment [1]	Percent Degree-seeking Undergrads[2]	Percent Full-time[3]	Percent In-state[4]
Albion Col.	Private	Small	Bachelor's	1,376	99%	100%	NR
Coe Col.	Private	Small	Bachelor's	1,411	95%	99%	NR
Concordia Col.–Moorhead	Private	Mid-Size	Master's	2,177	97%	99%	NR
DePauw U.*	Private	Small	Bachelor's	2,265	98%	100%	39%
Gustavus Adolphus Col.*	Private	Small	Bachelor's	2,379	100%	99%	77%
Kalamazoo Col.*	Private	Mid-Size	Bachelor's	1,443	98%	99%	NR
Lycoming Col.	Private	Mid-Size	Bachelor's	1,285	98%	100%	54%
Macalester Col.*	Private	Large	Bachelor's	2,172	99%	99%	15%
Mass. Col. of Liberal Arts	Public	Small	Master's	1,641	87%	89%	70%
St. Mary's Col. of Maryland	Public	Small	Master's	1,735	97%	98%	93%
St. Olaf Col.*	Private	Small	Bachelor's	3,046	99%	100%	NR
SUNY at Purchase Col.	Public	Small	Master's	4,169	94%	93%	78%
U. of Virginia's Col. at Wise	Public	Small	Bachelor's	2,027	69%	95%	93%
U. of Maine–Farmington	Public	Small	Master's	2,016	88%	95%	80%
U. of Minnesota–Morris	**Public**	**Small**	**Bachelor's**	**1,856**	**94%**	**96%**	**81%**
U. of N.C.–Asheville	Public	Large	Master's	3,891	90%	91%	87%

*Aspirational peer institutions
[1]Fall 2015 enrollment. Total Enrollment includes non-degree-seeking students.
[2]Fall 2015 percentage of total enrollment composed of degree-seeking undergraduate students.
[3]Fall 2015 percentage of degree-seeking undergraduate students who are enrolled full time.
[4]Fall 2015 percentage of first-time students who are state residents; residency is required reporting biennially in even years.
Source: Integrated Postsecondary Data System

Crookston Campus

Founded

1905—Northwest School of Agriculture
1966—University of Minnesota Crookston

Campus Leadership

Mary Holz-Clause, Chancellor

Departments

Agriculture and Natural Resources
Business
Liberal Arts and Education
Math, Science and Technology

Degrees/Majors Offered

34 undergraduate degree programs; 14 online majors;
2 academic programs offered in China

Student Enrollment (Fall 2017)

Undergraduate	1,797	(63%)
Non-degree	1,037	(37%)
Total	**2,834**	

Employees (Fall 2017)

Direct Academic Providers	128	(41%)
Higher Education Mission Support	60	(19%)
Intercollegiate Athletics	29	(9%)
Facilities-Related Jobs	28	(9%)
Organizational Support	61	(19%)
University Leadership	10	(3%)
Total Employees	**316**	

Degrees Awarded (2016–17)

Bachelor's	420

Campus Physical Size (2017)

Number of Buildings	41
Assignable Square Feet	482,071

Budget Expenditures (FY2017)

$39 million

Planning at the University of Minnesota Crookston

The Crookston campus shares in the University's statewide land-grant mission. Crookston "provides its unique contribution through applied, career-oriented learning programs that combine theory, practice, and experimentation in a technologically rich environment. UMC connects its teaching, research, and outreach to serve the public good" (from the campus mission adopted by the Board of Regents in May 2007).

The campus celebrated its 50th year as an institution of higher learning during the 2016–2017 academic year. Since opening the doors to college students in September 1966, the campus has served as the face of the University in northwest Minnesota. It continues to serve as a regional hub of activity and an economic driver with an economic impact of more than $50 million annually.

The Crookston campus leverages its own resources with those of the Northwest Research and Outreach Center, the Crookston regional office of University of Minnesota Extension, and the Northwest Minnesota Regional Sustainable Development Partnership— each of which is physically co-located on the campus. This proximity enables the sharing of expertise and resources in ways that allow these units to serve the region as well as the entire state in an extremely efficient manner. Similarly, the Crookston campus also benefits by hosting the Economic Development Administration Center for Minnesota, the Center for Rural Entrepreneurial Studies, and the Retired Senior Volunteer Program, working synergistically with these entities, as well as with local businesses and industry.

Crookston delivers on the University's reputation for excellence in a small-campus environment and online. Noteworthy within the University system for a focus on undergraduate teaching and learning, the Crookston campus's approach is highlighted by a distinctive blend of theory, practice, and experiential learning. The campus offers exceptional career preparation, including required internships for students planning to work immediately after graduation. It also provides strong foundational work for an increasing number of students planning for advanced study at graduate and professional school.

A pioneer in online education, Crookston offers a spectrum of niche and more universal bachelor of science programs.

Over the past five years, the primary and continuing goal of strategic planning has been to achieve a critical mass of students on campus while strategically growing online enrollment.

The robust experience both residential and commuter students experience on campus affords students personalized attention and "face time" with faculty mentors and staff. Numerous options exist for student engagement and leadership development through undergraduate research, clubs, activities, academic contests, and NCAA Division II athletics. Crookston's faculty and staff pride themselves on providing a supportive student-centered learning environment where all students—including first-generation, lower-income, less prepared, and at-risk students—can realize their potential and thrive via access to the University's programs and resources. The smaller setting of the Crookston campus is often seen as more approachable by students from rural and other backgrounds.

Online learning continues to be a strategic part of academic programming, with Crookston serving as an online learning leader within the University. An extension of the University's modern land-grant mission, online learning provides access to educational programs in a way that appeals to students that differ demographically from the traditional college-aged student. The average age of online students is 31.8 compared with the 20.7 average age of students completing coursework on campus. Currently, 14 of Crookston's 34 baccalaureate programs are offered entirely online as well as on campus. Online-only students comprise slightly more than 50 percent of the total student headcount as of fall 2017.

The Crookston campus continues to be a center of diversity in the region, enrolling students who come to campus from more than 30 countries and 40 states. For fall 2017, enrollment of domestic degree-seeking students of color is 15.4 percent of on-campus enrollment, and international students account for 9.6 percent of on-campus degree-seeking enrollment. This affords the campus and community opportunities for multicultural interaction and exchange.

The Crookston campus's two major sources of revenue are tuition and state support. Given current levels of state support and a desire to limit tuition increases, the only options for increasing revenue are enrollment growth, additional grant funding, and greater philanthropic support. While the campus operations are extraordinarily lean, units continue to explore ways to gain additional efficiencies. Recruiting, retention, and graduation efforts have become a campus-wide focus and need to be increasingly effective, highly targeted, and sustained from matriculation to graduation. Additionally, recruitment strategies for online students need to be targeted and effective in an increasingly competitive market.

Campus Strategic Planning

In 2016–2017, Crookston continued a strategic planning process that aligns with its commitment to continuous improvement and that focuses on planning for strategic opportunities that emerge from real-time situations. In late 2013, the Strategic Planning Leadership Team (SPLT) developed three key documents (Future Business Model, Institutional Identity Statement, Strategy Screen) and recruited faculty and staff to three strategic work group initiatives: the Strategic Enrollment Management Committee, the Strategic Philanthropic Engagement and Regional Support Team, and the Strategic Institutional Excellence Team (which has since evolved into a focus on rural economic development). A fourth initiative was added in 2015 with a focus on diversity, equity, and inclusion, and in late summer 2016 an additional initiative began that seeks to more fully elicit and support employee engagement and well-being of faculty and staff. The campus has continued to broaden the strategic discussion and participation across campus through the Faculty Assembly, Campus Assembly, the Crookston Student Association, and other venues such as open forums. The leadership team has begun a discussion to determine how these strategic initiatives will be institutionalized within the work of existing campus units and what new concepts and processes will be identified as focused priorities.

Review of Vision and Values Statements

With the existing campus vision and values statements being developed more than a decade ago, the SPLT has begun to update them to be inspirational, aspirational, and reflective of the campus and its strategic goals. Led by the SPLT and inviting input through campus-wide and community discussions and feedback sessions, the initial review process garnered much interest, participation, and discussion. More than 350 attendees (with some duplication) took part in the discussions. With the arrival of a new chancellor in July 2017, the fall 2017 work is focused on refining the new vision statement and seeking feedback. Work will continue through early 2018, with the goal of presenting an updated vision and values statement to the Board of Regents in the first half of 2018. These revised statements will help guide strategic planning as the campus moves forward.

Enrollment Management

The Strategic Enrollment Management Committee addresses the major challenge of how to achieve and maintain a critical mass of students on campus while also growing online enrollment. Major priorities include continuing the development of a five-year strategic enrollment management plan for on-campus and online students. An admissions team cross-trained to meet the needs of both on-campus and online prospective students has been in place for just over one year. Targets for four- and six-year graduation rates have been established congruent with the University Progress Card, and all departments and units have begun implementation of programs and services to achieve those targets. A successful pilot mentoring program for new student-athletes, launched in 2015–2016, has been expanded. Student Affairs units continue to develop, evaluate, and refine more effective and efficient ways to engage on-campus students to strengthen retention. Support units continue similar work to ensure that online students have access to service and support equivalent to on-campus students.

Strategic Philanthropic Engagement and Regional Support (SPERS)

The primary goal of SPERS has been to enhance and leverage support for the Crookston campus by engaging various internal and external constituencies—including current students and their families, faculty, staff, alumni, business and industry, community members, and donors—to

nurture a culture of philanthropy and pride. A major accomplishment has been the development and implementation of the Crookston Campus-Community Connection (C4). Soon to enter its third successful year, the C4 initiative is led by a planning board consisting of the Crookston chancellor and the mayor of the city of Crookston, as well as business and community leaders, students, faculty, and staff.

This group has enhanced an already strong campus-community relationship through programs such as:

- Dine Around Town, which encourages students, faculty, and staff to dine at local restaurants during the first few weeks of classes.
- College Town Forums, which bring the campus and local communities together to discuss how to work together on shared priorities.
- Maroon and Gold Fridays, which encourages local businesses to have their employees wear maroon and gold clothing on Fridays.
- Special "student nights" hosted by local businesses with activities specifically to engage and entertain University students.

Rural Economic Development

A priority of the Crookston campus is to establish itself as a premier resource for rural economic development. With an engaged and community-minded faculty in the Business Department, which offers nine distinctive business-related academic majors, and with both the Center for Rural Entrepreneurial Studies and the Economic Development Administration Center for the State of Minnesota located on site, the Crookston campus has significant resources upon which to build. The two latter entities utilize University faculty, staff, and students as well as Extension and regional professionals. The resulting educational experience of Crookston students is enhanced by engaging them in projects and research studies related to economic development and entrepreneurship.

Working with the Duluth campus (the current host of SBDC, the Northwest Region's Small Business Development Center), the Crookston campus continues to advance and refine plans to host a regional satellite SBDC office and, eventually, to assume responsibility as host. While the organizational structure for

Crookston's planned Center for Rural Economic Development has been developed, after three years of analysis and consultation and three failed searches for a leader for this initiative, campus administration will revisit and potentially modify these plans to ensure their viability. Resources including the Frank W. Veden Endowed Chair in Rural Economic Development will be used to develop a leadership and staffing plan. Discussions began in September 2017 with campus, local, and regional stakeholders about the development of a Rural Innovation Ecosystem.

Diversity, Equity, and Inclusion

Recognizing the importance of preparing students for the highly diverse world into which they will be graduating, the Crookston campus is, with increased intentionality, integrating diversity, equity, and inclusion into campus conversations and programming, with a goal of closing the gap between graduation rates for students of color and white students and increasing the graduation rate for all students. Enrolling students from more than 40 states and 30 countries and from both very urban and very rural areas, the Crookston campus reflects the diversity of the greater world. As such, it is a "laboratory" in which students can safely and openly explore difficult topics with people who are different from them. Fully aware that this work will be ongoing for many years, high-priority goals to implement and refine plans and strategies to integrate more diversity, equity, and inclusion on campus and in the community were continued in 2016–2017. Training and development programs and activities were planned, implemented, and evaluated. Additionally, the co-location of staff members working with new students, diversity programs, international students, and study abroad programs into a renovated, shared area named "The Compass" (after the concepts of travel, other cultures, and self-discovery) resulted in improved communication and collaboration among those units.

Employee Engagement

This strategic initiative concentrated on more fully eliciting employee ideas and involvement with focus on the engagement and well-being of faculty and staff. The initiative stemmed from general open-forum discussions of employee engagement survey data results over the past three years and a growing campus

culture of continuous improvement. A summer planning retreat in July 2016 set a basic framework for the 2016–2017 academic year. Two working groups were established to focus on staff development and leadership development, which resulted in two professional development programs for Crookston employees.

"UMC Leads" is a yearlong cohort program for faculty members to create a culture of leadership on campus. Designed by the University's Leadership and Talent Development team, the program assists faculty in the development of leadership skills, capacity, and readiness so they are positioned to move their programs, department, and the campus forward. A cohort of 13 faculty members began the program in January 2017, with sessions continuing through the end of 2017.

Intended for both faculty and staff members, the "UMC Leadership Academy" provides opportunities for leadership skills development. This program will span the 2017–2018 academic year and continue thereafter. Additionally, the fall 2016 campus professional development day focused on employee well-being, offering a series of seminars on related topics for employees; the spring 2017 campus professional development day focused on developing employee competency in managing conflict.

Strengthening the Crookston Campus Research Infrastructure

Over the past several years, newly hired faculty members with a strong disposition for conducting and engaging students in research have changed the culture of the campus. Each year, increasing requests for lab and research space have only reinforced the need for more and better spaces. The Center for Collaborative Research—Crookston's first centralized, self-contained, transdisciplinary lab research facility—has been funded, and plans are being finalized with a goal of opening the space in early 2018. Additionally, two Crookston campus projects are part of the University's 2018 Capital Request. The first project would optimize 9,500 square feet of existing lab space in Dowell Hall with lab stations for 122 students in STEM-related, computational research, and teacher education majors. The second project would renovate 4,000 square feet of underutilized

space in Owen Hall to create modern chemistry and biology labs, which will provide flexible bench space supporting faculty-led undergraduate research. Legislators have toured these spaces, and efforts to elicit their support via funding at the state level will be a priority for the campus. Administration, faculty, and staff also continue to develop infrastructure and support for external grants using resources such as those of the University's Office of the Vice President for Research and the Grants Resource Center offered by the American Association for State Colleges and Universities.

The University of Minnesota is well known for research that addresses a number of grand challenges. Crookston faculty and students are conducting research that address these, including:

- a search for new antibiotics as part of the Small World Initiative;
- a study of gases related to climate change;
- big-data methods to evaluate land and its potential for producing crops; and
- new state grant-funded research initiatives involving freshwater sponges and water quality.

Systemwide Strategic Planning

The Crookston campus will be an active participant in the systemwide strategic planning process. Chancellor Holz-Clause will serve on the Strategic Planning Oversight Committee, which will coordinate development of a systemwide strategic plan focused on five strategic areas: teaching and learning, research and discovery, outreach and public service, medicine and health, and supporting the mission.

Comparison Group Institutions

After a review of the previous list of comparison group institutions, the Crookston campus has identified a revised group of eleven higher education institutions as the primary comparison group for planning and assessment. The new comparison institutions were selected based on their similarities in academic programs, enrollment, rural setting, and other key characteristics. These institutions are listed in Table 3-4, with the variance among them shown.

Table 3-4. Comparison group institutions, Crookston campus

	TYPE			SIZE	STUDENTS		
	Institutional Control	City Size	Highest Degree Offered	Total Enrollment [1]	Percent Degree-seeking Undergrads[2]	Percent Full-time[3]	Percent In-state[4]
Indiana U.–Kokomo	Public	Small	Master's	4,090	68%	77%	99%
Lake Superior State U.	Public	Small	Doctoral	2,249	93%	86%	88%
Northern State U.	Public	Small	Master's	3,449	45%	81%	NR
Northwest Missouri State U.	Public	Small	Master's	6,593	80%	93%	59%
Northwestern Oklahoma State U.	Public	Small	Master's	2,136	85%	76%	62%
Southwest Minnesota State U.	Public	Small	Master's	7,276	32%	80%	NR
SUNY Col. of A&T at Cobleskill	Public	Small	Bachelor's	2,441	99%	95%	91%
U. of Tennessee–Martin	Public	Small	Master's	6,827	88%	90%	91%
U. of Minnesota–Crookston	**Public**	**Small**	**Bachelor's**	**2,823**	**66%**	**63%**	**64%**
U. of Pittsburgh–Johnstown	Public	Small	Bachelor's	2,816	100%	97%	95%
U. of Wisconsin–Platteville	Public	Small	Master's	8,945	87%	91%	75%
U. of Wisconsin–River Falls	Public	Small	Master's	5,949	89%	91%	50%

[1]Fall 2015 enrollment. Total Enrollment includes non-degree-seeking students.
[2]Fall 2015 percentage of total enrollment composed of degree-seeking undergraduate students.
[3]Fall 2015 percentage of degree-seeking undergraduate students who are enrolled full time.
[4]Fall 2015 percentage of first-time students who are state residents; residency is required reporting biennially in even years.
Source: Integrated Postsecondary Data System

Rochester Campus

Founded

2006

Campus Leadership

Lori J. Carrell, Interim Chancellor

Campus Academic Programs

Health Professions
Health Sciences
Biomedical Informatics and Computational Biology[1]

Degrees/Majors Offered

One baccalaureate degree offered in two academic programs
One master's degree offered in one academic program
One doctoral degree available in one academic program

Academic Partnerships

School of Nursing, UMTC
Occupational Therapy, UMTC

Educational Collaborations

College of Science and Engineering, UMTC
Mayo Clinic School of Health Sciences

Biomedical Informatics and Computational Biology Partnerships

UMTC, Hormel Institute, Mayo Clinic, IBM,
National Marrow Donor Program, Brain Sciences Center

Student Enrollment (Fall 2017)

Undergraduate	459	(82%)
Graduate & Professional[1]	89	(16%)
Non-degree	13	(2%)
Total	**561**	

Employees (Fall 2017)

Direct Academic Providers	37	(39%)
Fellows, Trainees, and Students in Academic Jobs	6	(6%)
Higher Education Mission Support	25	(26%)
Facilities-Related Jobs	2	(2%)
Organizational Support	17	(19%)
University Leadership	7	(8%)
Total Employees	**94**	

Degrees Granted (2016–2017)

B.S. (Health Sciences)	93
B.S. (Health Professions)	29
M.S. and Ph.D. (Biomedical Informatics and Computational Biology)[1]	14

Campus Physical Size (2017)[2]

Number of Buildings	3
Assignable Square Feet	154,593
Land for Future Campus	3.1 acres

Budget Expenditures (FY2017)

$18 million

[1]All-University graduate degrees granted by the Twin Cities campus with the administrative home on the Rochester campus.
[2]All buildings are leased.

Planning at the University of Minnesota Rochester

As the Rochester campus enters a new stage of growth, planning efforts are also transitioning. As can be seen in Figure 3-A, the availability of student success data and delineation of processes and organizational structure has allowed the campus to quickly stabilize efforts and enhance growth planning. The planning process was shaped by established anchors and initiated by clarifying the campus's grounding values. The next step was to determine arenas of distinctiveness which was followed closely by defining centering aspirations for strategic planning. These principles are listed below.

Grounding Values
- Respect
- Human potential
- Community
- Diversity and inclusiveness
- Evidence-based decision making

Established Arenas of Distinctiveness
- Customized undergraduate health education
- Individualized care, attention, and guidance
- Connected curricular experiences
- Collaborative culture

- Learner-centered core shaped by ongoing learning research
- Community immersion and engagement

Centering Aspirations for Strategic Planning
- Devote expertise and energy to student learning and development
- Generate transformative contributions to the renewal of higher education
- Enhance the diversity of the healthcare workforce
- Optimize the established arenas of distinctiveness
- Sustain UMR as an innovative educational enterprise
- Contribute significantly to the continued development of the Rochester community

A Strategic Framework was completed over this past year. The first step in UMR's strategic planning endeavor was to formulate a five-year Enrollment Management Plan. That plan for enrollment growth has since informed and influenced all other subsequent planning efforts. The core components of the enrollment plan include recommendations for:

- sustaining consistent undergraduate enrollment growth over the next five-year period;
- admitting students for success;
- maintaining affordability and access for Minnesota students;

Figure 3-A. Rochester campus strategic planning timeline
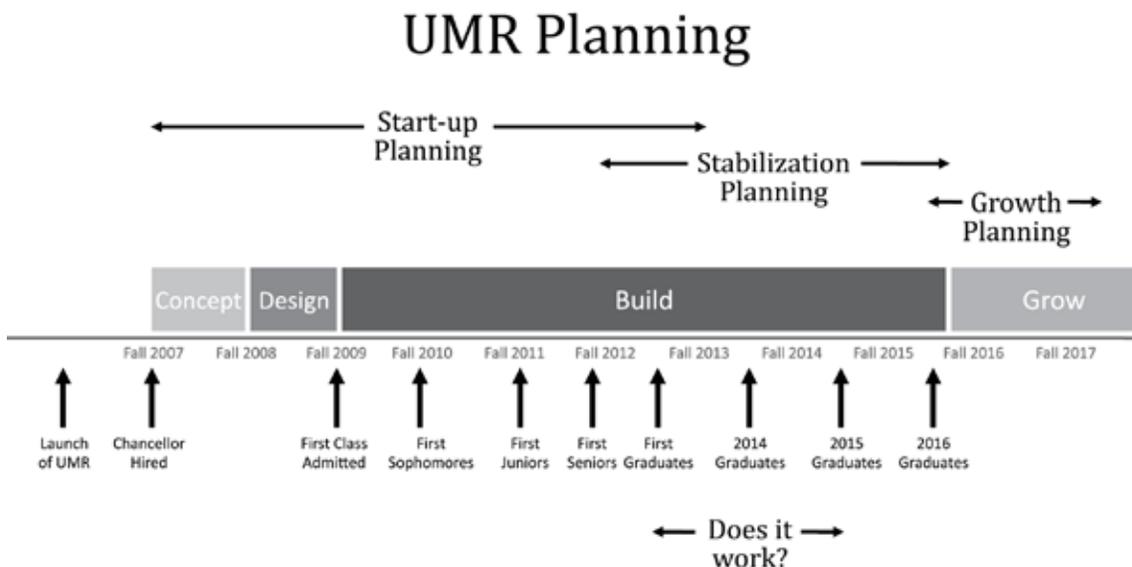
Source: University of Minnesota Rochester

- providing a high-quality, evidence-based education and student development experience;

- valuing ethnic, social, economic, cultural, and geographic diversity; and

- supporting timely graduation.

As a result, the Rochester campus will work to expand enrollment in its two undergraduate health sciences degree programs—Bachelor of Science in Health Professions (BSHP) and Bachelor of Science in Health Sciences (BSHS)—by 50 students per year, through recruitment and retention. In the first year of working under the new five-year enrollment plan, new student enrollment exceeded expectations and set a record for the fall 2017 incoming class. The increase resulted from a combination of strategies for growth in the incoming class of undergraduate students as well as improved student retention. The emerging System Strategic Enrollment Management Plan in progress during academic year 2017–2018 (a component of the Systemwide Strategic Plan Framework) is also expected to positively impact campus recruitment and retention.

From these expectations of growth in the size of the student body as well as a desired growth in influence in higher education innovation, a Growth Planning Steering Committee was charged by the chancellor to commission and coordinate the following strategic planning subcommittees as the next step of strategic planning:

- Academic Innovation and Optimization

- Alumni

- Campus Master Planning

- Community Engagement and Partnerships

- Diversity and Inclusion

- Enrollment Management

- Fiscal Planning

- Healthy Campus Community

- Marketing and Branding

- Operations and Emergency Planning

Each working group was populated by representative membership from across the institution including students, faculty, staff, and leadership. The outcomes

from each working group aided in identifying the following interconnected Strategic Growth Priorities:

- Learning—the grounding value of "evidence-based decision-making" will be implemented with vigor. Student data, institutional assessment, and faculty learning research results will guide the campus to make intentional choices, coordinate initiatives, pursue partners, communicate the campus vision, cultivate financial commitments, and allocate resources.

- Resources—maintaining the campus's innovative model and sustaining a culture of creativity will require wise stewardship of financial, physical, and human resources. As individuals and an inclusive community in pursuit of the campus vision, well-being is a priority that will necessitate unwavering focus and highly deliberate choices regarding which opportunities will be pursued and which will not.

- Collaboration—The campus's history of commitment to collaborative partnerships will continue and expand with intentionality. Aware of the need for collective action to impact systemic challenges, the campus will not move forward in isolation. We remain committed to UMR's physical integration in downtown Rochester and extensive connection with community partners that share a learning-focused mission and a commitment to diversity and inclusivity. The campus also expects to enhance and expand collaboration with UMR faculty, staff, and students; the University of Minnesota System; and other higher education innovators.

- Communication—the vitality, consistency, transparency, inclusivity, and clarity of internal and external communication will be high priorities. The campus will sustain creative, learning-focused community by documenting and sharing stories of teaching, learning, research, and innovation; boldly communicating the campus vision and values; intentionally including new students, faculty, and staff into the community of wellness and innovation; and reinforcing and valuing collaborative habits of interaction.

In fall 2017, Rochester's formal planning process shifted from strategic to tactical. The interim

chancellor charged a Growth Plan Tactical Steering Committee to form Growth Plan Tactical Planning Groups. These planning groups are formulating recommended measurable objectives for which they will specify tactical actions necessary to support Rochester's established strategic direction. The steering committee will work with campus leadership to finalize the plan, with expected completion and alignment with the Systemwide Strategic Plan in June 2018. This highly inclusive planning process is critical to sustaining the momentum, distinct priorities, creative culture, and higher-education innovation that have been established at UMR.

The timeline and activities for the UMR strategic planning process areas follow:

- The Enrollment Management Plan was completed by the UMR Enrollment Management Team in academic year 2015–2016.

- The UMR Strategic Plan Framework was completed in academic year 2015–2016, with vision, grounding values, arenas of distinctiveness, and centering aspirations.

- The UMR Growth Planning Process was completed in academic year 2016–2017, adding strategic decision-making principles and key priorities.

- Tactical planning and completion of the overall UMR Strategic Growth Plan is under way in academic year 2017–2018.

- Finalization of the plan and alignment with the University's Systemwide Strategic Plan is expected in summer 2018.

Education

Providing an extraordinary education that generates knowledge, understanding, and creativity. We seek to develop students who become leading scientists and teachers, engineers and artists, and health and business professionals, and who contribute to their communities at every level.

Undergraduate, Graduate, and Professional Education

The University is committed to being accessible to a wide range of populations, attracting outstanding students, offering an exceptional education, and graduating students prepared for success.

The University has been able to show increasing success with each of these priorities over the years. What may be just as important, however, are the reasons why University leaders identify these areas as priorities. Why, for example, does the University provide financial aid support to students from low-income and middle-income families? Why is it important that more and more high-ability Minnesota students are choosing to enroll at the University instead of leaving the state? Why is it important that the four-, five-, and six-year undergraduate graduation rates are significantly higher on every campus than they were ten years ago?

The answer is that success on each of these fronts is evidence of success toward achieving the University's mission.

An education at the University of Minnesota prepares students to be leaders, innovators, and global citizens. It is crucial that students who have the ability to benefit from the University's opportunities have access to the University.

The better the student learning experience, the better chance that students will have to succeed. Higher graduation rates are important because they demonstrate that more students have been empowered to make the contributions to society that the University's mission envisions.

The discussions of undergraduate, graduate, and professional programs on the following pages demonstrate the importance the University and its campuses place on providing an extraordinary education. While much of this discussion, particularly that at the undergraduate level, is best considered

campus by campus, there are several priorities and measures that the University monitors at a holistic or system level. Among these are the four-year graduation rates of Pell-awarded students, the amount of institutional gift aid available to students, the median undergraduate debt at graduation, the percent of Minnesota students enrolled, and the number of national scholarship awards earned by University undergraduates.

The percentage of first-time, full-time new entering freshmen who received need-based federal Pell grants their first year and graduated within four years is an important consideration because these students, who are often also first-generation college students, may have challenges that impede their success at the University. Ideally these students would graduate at the same rate as the whole student body, but that is not the case at the University nor at most other institutions across the country. As a result of support efforts targeting these and other students, this rate has risen from 43.9 percent for the cohort entering in 2010 to 50.9 percent for the cohort entering in 2013 **(Progress Card Measure).** The University's goal is for 54 percent of the 2017 cohort of Pell-awarded students to graduate within four years, which would increase their graduation rate at twice the rate of the growth anticipated for the student body overall.

The University has a historical commitment to making education affordable to students and thus monitors the amount of institutional gift aid awarded to students across all of the campuses. This amount includes U Promise scholarships, admissions scholarships, collegiate and department scholarships, athletic scholarships, Regents scholarships, and graduate assistant tuition benefits, but excludes state or federal grants, student employment, and loans. To maintain its commitment to affordable education, the University seeks to increase its available gift aid through fundraising and institutional resources. Total

institutional gift aid has grown from $216 million in 2012–13 to $246 million in 2015–16 **(Progress Card Measure).** The University's goal of awarding $275 million of gift aid in 2021 represents a three-percent annual increase.

Also related to the commitment to affordable education, the University monitors the median amount of student debt accumulated by undergraduates (not including students who have no debt) at the time of their graduation. The median amount for graduating students in 2015–16 was $24,645, down from $24,880 in 2012–13 **(Progress Card Measure).** While many factors—such as federal and state financial aid policies, program choice, time to degree, and student and parent behaviors and choices—shape this measure, the University's goal is to limit the increase in the median amount of cumulative debt for undergraduates with debt to no greater than the consumer price index, with adjustments according to state and federal policy changes. The percentage of University undergraduates with no debt at their time of graduation has increased from 34 percent in 2011–12 to 39 percent in 2015–16. The total amount of funding for graduate assistants, fellows, and trainees during fiscal year 2017 was $180,543,823, a 4.3 percent increase over the previous year and an increase of twelve percent over five years.

As the state's flagship land- and sea-grant institution, it is important that the University serve the students of Minnesota. Over the years, the percent of Minnesota high school graduates among both new entering and all undergraduate students throughout the University system has remained consistently high. In 2016, 70.6 percent of the new entering class and 71.1 percent of the whole undergraduate student body came from Minnesota high schools **(Progress Card Measure).** The goal is to maintain this rate of access to the

University for Minnesota high school graduates. The number of graduate students who self-identified as students of color (American Indian, Asian, Black, Hawaiian, or Hispanic) has grown from 1,584, or 11.3 percent, in 2012 to 1,823, or 14.3 percent, in 2017.

Similarly, the University measures its share of the portion of recent Minnesota public high school graduates who enroll at a Minnesota postsecondary institution. In 2016, the portion was 18.7 percent compared to 13.9 percent in 2012 **(Progress Card Measure).** The University's goal is to maintain this level of access and be an option of excellence and affordability for Minnesota high school graduates who choose to pursue their postsecondary education in state.

Finally, the University tracks at a system level the number of prestigious national awards annually earned by University undergraduate students. This measure gives some indication of the University's engagement and excellence on a national scale in a wide variety of fields and expertise. The measures includes seven leading student awards: the Beinecke, Churchill, Truman, Rhodes, Fulbright, Goldwater, and Astronaut awards. From 2010–15, University students earned 75 of these awards, which is up from 52 from 2005–10, and 31 in 2000–05 **(Progress Card Measure).** The University's goal is to have 80 students earn these awards from 2015–2020. In the past year, a record 37 new graduate students were awarded National Science Foundation Fellowships. Two graduate students received CIC/Smithsonian Fellowships and, during 2016–2017, the University was named a "Top Fulbright Producing University."

Undergraduate Education

TWIN CITIES CAMPUS

The University's commitment to the success of undergraduate students begins with outreach to prospective students and extends through recruitment, enrollment, orientation, academic advising, career services, graduation, and beyond. The University attracts outstanding undergraduate students, is accessible to diverse students with a range of backgrounds, and provides a world-class educational experience. Graduates are equipped with the intellectual tools to be productive employees, thoughtful citizens, and creative leaders engaged with the collective challenges we face as a society.

The foundational principles for developing enrollment targets for new first-year and new transfer students on the Twin Cities campus over the past two decades have included admitting students who will benefit from the curriculum and who have a strong probability of graduating in a timely manner; providing a high-quality education and student experience; remaining affordable to a broad cross-section of students; incorporating ethnic, social, economic, and geographic diversity; enrolling new high school and transfer students; and providing students with the opportunities and benefits of attending a world-class research institution.

In spring 2016, the Board of Regents approved the 2016–2021 undergraduate enrollment plan for the Twin Cities campus, which outlined ten enrollment management strategies in support of institutional priorities, including meeting the goals identified in the University Progress Card:

1. Plan for modest undergraduate growth over the next five-year period. Increase total undergraduate enrollment from 30,500 (fall 2015) to approximately 32,000 to 33,000.

2. Admit for success. Continue to admit those students who will benefit from the University's rigorous curriculum and who have a strong probability of graduating in a timely manner. Continue holistic review of prospective students' records and maintain appropriate levels of selectivity. Maintain an average ACT of 28 or higher for the entering freshman class.

3. Maintain affordability and access for Minnesota students. One measure of affordability is average student indebtedness at graduation. Access can be measured by the percent of all Minnesota high school graduates who enroll at the Twin Cities campus as freshmen, and by the percentage of Minnesota high school graduates who choose to attend college in Minnesota and enroll at the Twin Cities campus. Attract a broad cross-section of students from all parts of Minnesota.

4. Provide a high-quality education and student experience. Adjust enrollment levels within the capacities of financial, intellectual, and physical resources, with the goal of providing a very high-quality experience. Resources include housing, advising, classrooms, capacity for chemistry courses, student support services, and co-curricular activities. Measure student satisfaction and learning for all students. Measure progress toward "inclusive success" for students of color via annual surveys. One measure of academic excellence in comparison to peers is the number of competitive national scholarships awarded to University of Minnesota students.

5. Maintain commitment to transfer students. Enroll a balance of new high school students and transfer students. Facilitate transfer among the University of Minnesota campuses, as well as from institutions in the Minnesota State system. Continue to enroll at least 33 percent of new Twin Cities students as transfer students. Achieve a 65 percent three-year graduation rate for transfer students.

6. Value ethnic, social, economic, and geographic diversity. Enhance the educational experiences of all students through interactions with students from different backgrounds, other states, and other countries. Attract a broad range of undergraduate students and serve as a talent magnet for the state. Attract, retain, and graduate students from multicultural backgrounds.

7. Support timely graduation. Ensure that students admitted to the Twin Cities campus are adequately supported to graduate in a timely way. Link financial aid strategies and enrollment management strategies. The Twin Cities four-year graduation rate for New High School (NHS) students should reach/exceed 65 percent and the six-year rate should reach/exceed 82 percent; the three-year transfer graduation rate should reach/exceed 65 percent; the four-year graduation rate for Pell-recipient students should reach/exceed 54 percent. Maintain recent gains in the Graduation Success Rates (GSR) for student-athletes. Increasing graduation rates for all students, and specifically the rates for students of color, are also legislative performance measures.

8. Adjust enrollment levels and set tuition rates to provide revenues. Adjust enrollment levels and set tuition rates to provide adequate revenue to support high-quality educational programs within the overall mission of the campus.

9. Continue to enhance need-based and merit-based financial aid programs. Continue to provide need-based (including middle-income) and merit-based financial aid. The general allocation of financial aid resources should be biased toward need-based financial aid, but strong merit-based scholarships are also needed to attract the best and brightest students. Grow institutional gift aid to $275 million.

10. Be attentive to state, national, and global workforce needs. Be attentive to the workforce needs of the future for the state, the nation, and the world. Increase the number of STEM graduates (a legislative performance measure).

Maintaining Access to the Twin Cities Campus

The University maintains a strong commitment to access to its degree programs—for Minnesota resident students, for students from a range of economic backgrounds, for students of color, and for first-generation students. Strategies to ensure access include targeted recruitment; holistic, need-blind review for admissions; and linking tuition strategies with financial aid strategies and enrollment management strategies.

Financially Accessible

As a public institution, the University supports access for qualified students. Review of applicants for undergraduate admissions is need-blind, meaning that a student's ability to pay is not a factor in determining admissibility. The University funds and administers a comprehensive financial aid program targeted to degree-seeking students and tailored to each student's circumstances, including merit-based aid to attract and support high-achieving students and need-based aid to maintain access for many talented students who otherwise would not be able to attend the University.

Total financial support to Twin Cities undergraduate degree-seeking students over the past two years is summarized in Table 4-1. The decrease in the total amount of loans over that period is notable, as is the shift of the proportion of total aid to include more gift aid and less loan aid. As shown in Table 4-2, trends over the past five years are moving in the right direction; the proportion of graduates with no debt is increasing, and the average amount of loan debt for those who have debt is stable.

One measure of financial accessibility is the percentage of students who are low-income, defined as federal Pell Grant recipients. In fall 2017, 21 percent of all degree-seeking students enrolled on the Twin Cities campus were Pell recipients. Looking at specific groups of students: Minnesota resident students, 26 percent; freshmen, 18 percent; new transfer students, 29 percent. Another measure is the percentage of first-generation college students, defined as neither parent having completed a college degree. In fall 2017, 26 percent of all degree-seeking students on the Twin Cities campus were first-generation. Looking

Table 4-1. Total financial support to Twin Cities campus undergraduate degree-seeking students, 2015–16 and 2016–17

Aid Category	Aid Year 2015–16	% of total	Aid Year 2016–17	% of total
Gift Aid (scholarships, grants)	$141,736,481	41%	$147,935,320	41%
Student Employment (including Work Study)	$27,122,891	8%	$27,688,695	8%
Loans (student and parent loans)	$164,379,580	47%	$168,454,230	47%
Waivers	$13,764,103	4%	$17,251,194	5%
Total	$347,003,055	100%	$361,329,439	100%

Source: Office of Institutional Research, University of Minnesota

at specific groups of students: Minnesota resident students, 30 percent; new freshmen, 21 percent; new transfer students, 39 percent.

Recognizing the pressures faced by middle-income families, the University continues its commitment to provide financial aid through the U Promise program, which provides aid to over 13,000 Minnesota undergraduates systemwide. The program provides funding to families making up to $120,000, and it provided funding to fall 2017 undergraduate students from every Minnesota county (see Figure 4-A).

To assist Twin Cities campus students and their parents with managing the costs of college, the University has increased financial literacy efforts, including the "Live Like a Student Now So You Don't Have to Later" campaign. This program was recognized by then-President and First Lady Obama at the January 2014 College Opportunity Summit in Washington, D.C.

Welcome Week for new students includes a workshop on money management, and One Stop Student Services now has counselors certified in financial wellness who conduct workshops for students and meet with students one-on-one. The One Stop website includes money management resources. A key point of

the financial literacy messaging is that graduating in a timely manner is one of the best ways for students to manage the costs of their education.

Accessible to Transfer Students

Educating transfer students is an important part of the University's service to the state, particularly for the Twin Cities campus, as the flagship of the system, because it offers many undergraduate majors not available elsewhere in the state. Of the 9,032 new students enrolling on the Twin Cities campus in 2016–17, 5,895 were freshmen and 3,137 (35 percent) were transfer students from outside the University. Over 37 percent of these new transfer students come from Minnesota State institutions.

Transfer students add to the diversity of the Twin Cities campus. When compared with those who enter as freshmen, transfer students include proportionately higher numbers of first-generation students, African-American students, Hispanic students, American Indian students, international students, and older-than-traditional-college-age students. The University admits transfer students who can be successful in completing a degree program, and considers students for transfer admission after they have a record of success in one or more years of college courses that

Table 4-2. Student loan debt trends for Twin Cities campus undergraduate degree recipients, fiscal years 2013–2017

Bachelor's Degree Recipients	2012–13	2013–14	2014–15	2015–16	2016–17
% of Bachelor's Degree Recipients with no student debt	38%	39%	40%	43%	43%
Average loan debt for those with debt	$27,158	$26,406	$26,091	$26,068	$25,994
Median loan debt for those with debt	$24,594	$24,433	$24,000	$23,318	$23,009

Source: Office of Institutional Research, University of Minnesota

Federal, state, institutional, and/or private student loans are included in these calculations for any undergraduate studies within the University of Minnesota system. Any student loan certified by or reported to the University is included in these statistics. Other debt instruments, such as a personal line of credit, home equity line of credit, Parent PLUS loan, or loans from family/friends are not included in these statistics.

Figure 4-A. Percent of fall 2017 undergraduate degree-seeking students systemwide within each county receiving a Promise Scholarship.

11-24%
25-49%
50-74%
75% or higher
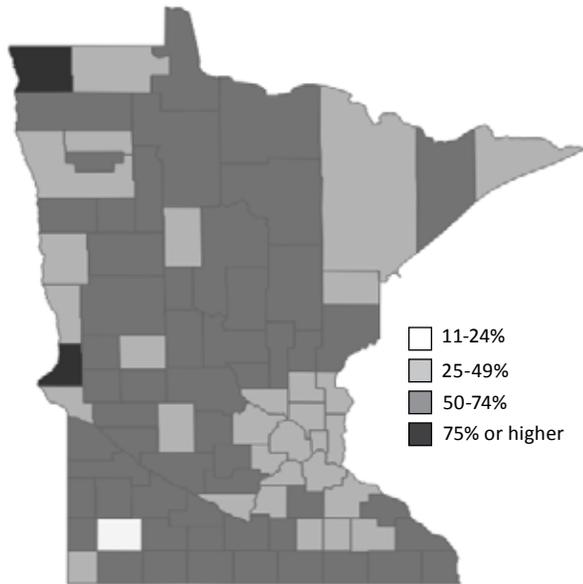
Source: Office of Institutional Research, University of Minnesota

are transferable to the campus. Over the past decade, the three-year graduation rate for transfer students **(Progress Card Measure)** has improved from 46.3 percent (students entering in 2003) to 64.6 percent (entering in 2014). Of the 7,807 undergraduate degrees awarded in 2016–17, 36 percent were awarded to students who had transferred to the campus.

Accessible to Diverse Students

The University is committed to achieving excellence with a diverse student body and to maintaining a respectful, welcoming environment for all students. This commitment encompasses diversity in many forms, including geographic origin, racial-ethnic background, sexual orientation, gender identity, culture, disability, veteran status, and socio-economic background. After several years of relative stability, the University has observed a troubling decline in measures related to students' sense of belonging for all students, but especially for students of color as indicated on the SERU survey **(Progress Card Measure).** The University's commitment to improving the campus environment for all students is highlighted on the Campus Climate website, which lists a wide range of initiatives and improvements, including the Student Climate Advisory Committee, the Commuter Connection, and the Multicultural Student Engagement unit within Student Affairs.

Over 700 veterans are now enrolled on the Twin Cities campus as degree-seeking undergraduates. The University Veterans Services Office assists them with admissions processes; transitioning from military life to the role of a student; certifying, applying, and qualifying for veterans benefits; processing military leaves for those called to active duty; and connecting with campus opportunities and resources.

From fall 2016 to fall 2017, the number of undergraduates of color on the Twin Cities campus increased from 6,586 to 7,111 (from 21.3 percent to 22.5 percent). While the number of international students increased from 2,779 to 2,816, the percentage decreased from 9.0 percent to 8.9 percent. For fall 2017, the percentage of undergraduate students from Minnesota was 65.9 percent. Students from 45 states, plus Washington D.C., Guam, Puerto Rico, the American Virgin Islands, and from 95 countries were among the 31,535 undergraduates.

While the percentage of Minnesota students has been relatively consistent, there have been some shifts in the geographic origin of other U.S. students. The percentage of students from reciprocity states (Wisconsin, North Dakota, and South Dakota) has decreased, while the percentage from other states and outside the United States has increased. The increase in the numbers of students from other regions of the United States and from other countries reflects the University's commitment to enhancing the campus community through the inclusion of young people from differing countries, backgrounds, religions, and experiences.

Attracting Outstanding Students to the Twin Cities Campus

High-ability students increasingly seek to attend the University of Minnesota Twin Cities, as evidenced by the growing numbers of applications and the student preparation metrics of the incoming freshman class. Applications for admission have nearly doubled over the past decade, from 26,091 prospective students seeking admission for fall 2007 to 43,720 for fall 2017. During that same time period, the average ACT for the new freshman class has improved significantly, from 25.9 to 28.4 **(Progress Card Measure)**.

The increased number of applicants can be attributed to a growing awareness by prospective students and their families of the many improvements in undergraduate education on the Twin Cities campus. The academic preparedness of first-year students and the diversity among those students enrich the classroom experience and the campus social environment. Enhanced national recruitment efforts have helped to offset the declining numbers of Minnesota high school graduates, increase the geographic diversity of the student body, and bring workforce talent into the state. The fall 2017 freshman class includes students from 45 states and 43 countries.

The President's Emerging Scholars (PES) Program is a merit-based scholarship and student success program. Participants are selected based on a holistic review conducted by the Office of Admissions. PES students are selected based on strong academic and extracurricular excellence, and significant community engagement. These scholars are accomplished, involved, and resilient. PES scholars are also diverse—many are the first member of their families to attend college, Pell grant recipients, or student of color. This program invites approximately 500 students to participate in the program each year and the program involves scholarship funding and significant programming and campus engagement.

The University Honors Program attracts high-achieving students who have chosen to attend the Twin Cities campus over some of the nation's most selective institutions. The 2,290 students in the Honors Program benefit from a challenging, interdisciplinary approach, with rigorous honors courses and co-curricular experiences that draw on the expertise of faculty and staff across the comprehensive range of disciplines on campus. The profile of the 594 new fall 2017 Honors students showed an average ACT of 32.9 and average high school rank of 97.5 percent.

In 2017, the Land-Grant Legacy Scholarship Program was conceived by the College of Food, Agricultural and Natural Resource Sciences and the Office of Undergraduate Education to support the University's commitment to Minnesota residents and access for Minnesota students. This initiative aims to attract and retain more students from Greater Minnesota and includes programmatic elements designed to support

students during their time at the University and to build community. This initiative, which also includes a financial scholarship, will serve as a pilot on which to expand into other colleges.

Offering a Great Student Experience on the Twin Cities Campus

The Twin Cities campus undergraduate educational experience is special because of the campus's unique position in the world of public higher education:

- As the state's only research university and one of the very best research universities in the nation.
- As the state's public land-grant university.
- Located in the state capital, which provides many opportunities for internships with state agencies.
- Situated in a vibrant metropolitan area, with remarkably beautiful parks, lakes, and rivers; a lively social and cultural environment; and many Fortune 500 companies.

The University leverages these attributes to provide undergraduates with a world-class learning environment and student experience. The University is one of the most comprehensive in the world, offering 150 baccalaureate degree programs in a wide range of areas: astrophysics, product design, child psychology, American Indian studies, entrepreneurial management, biomedical engineering, and music performance, to name just a few. Many students take even greater advantage of this breadth of opportunity by double-majoring or by completing a minor. The 135 minors offered include traditional disciplinary areas such as art history, biology, and mathematics, as well as emerging and interdisciplinary areas such as water science, family violence prevention, business law, social justice, and sustainable agriculture.

As part of achieving the vision of the Twin Cities Campus Strategic Plan—to be preeminent in solving the grand challenges of a diverse and changing world—exciting new Grand Challenge Curriculum (GCC) courses are now offered to undergraduates. The first GCC courses were developed and offered in 2015–16. These courses bring a solution-driven, interdisciplinary approach to learning about important

global issues. GCC courses are taught by two or more cross-disciplinary faculty who bring unique perspectives to the challenge being explored. Courses include "Science and Society: Working Together to Avoid the Antibiotic Resistance Apocalypse," "Pathways to Renewable Energy," and "The Achievement Gap: Who Is to Blame?"

Undergraduates value such opportunities to have an impact on the world. Data from the 2015 Student Experience in the Research University (SERU) survey indicated that 86 percent of students surveyed considered opportunities to connect their academic work with community-based experiences important. Public engagement activities support student learning and development outcomes and help recruit students to the University who are looking for these engagement opportunities.

The Community Engagement Scholars Program is one option for students to immerse themselves in a rigorous community-based learning program. Through a cohort model, students complete eight credits of service-learning coursework, participate in structured reflection sessions, volunteer for a minimum of 400 hours with a community organization, and submit a final capstone project produced in partnership with a community organization. Upon completion of the program, students receive official recognition at graduation and on their academic transcript. The program currently enrolls 268 students.

The University has agreed upon campus-wide undergraduate student learning outcomes, which state that, at the time of receiving a bachelor's degree, students:

- Can identify, define, and solve problems.

- Can locate and critically evaluate information.

- Have mastered a body of knowledge and a mode of inquiry.

- Understand diverse philosophies and cultures within and across societies.

- Can communicate effectively.

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

- Have acquired skills for effective citizenship and lifelong learning.

Articulated learning outcomes are important as faculty develop curricula, plan courses, construct learning activities, and assess the learning that occurs in every aspect of the student experience: classes, service-learning, research opportunities, internships, and learning abroad.

Twin Cities undergraduate teaching facilities have been improved with state-of-the-art classrooms, including Bruininks Hall, which has more than a dozen high-tech, active-learning classrooms. Completed in fall 2017, the renovation of the John T. Tate science and teaching building transformed obsolete labs and antiquated classrooms into vibrant, flexible spaces that will bolster instruction, research, and support services. Residence hall facilities and programming have been recently enhanced, as well. The 17th Avenue Residence Hall increased the on-campus housing capacity by 600 beds. While Pioneer Hall is being renovated, the University is leasing residential space from private facilities near campus and has adjusted room assignment processes to ensure housing for incoming students. A new Residential Curriculum Model has been launched in all residence halls and apartment communities, based on five elements of well-being: career, social, financial, physical, and community—reflecting the University's ongoing commitment to student engagement, retention, graduation, and success.

Preparing Twin Cities Campus Graduates for Success

The University is committed to providing students with a distinctive, world-class liberal education and rigorous coursework in a field of study. Initiatives concerned with the student experience are focused on enriching students' knowledge, skills, and abilities and equipping them for the challenges of the future in a diverse, changing, global society. Undergraduate student retention rates, graduation rates, and the number of degrees conferred are among the measures that the University uses to assess the extent to which the University is challenging, educating, and graduating students. The University Progress Card includes the following goals for undergraduate education on the Twin Cities campus:

- 4-year graduation rate of 65% for the 2017 cohort

Figure 4-B. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Twin Cities campus, classes matriculating in 2003–2013
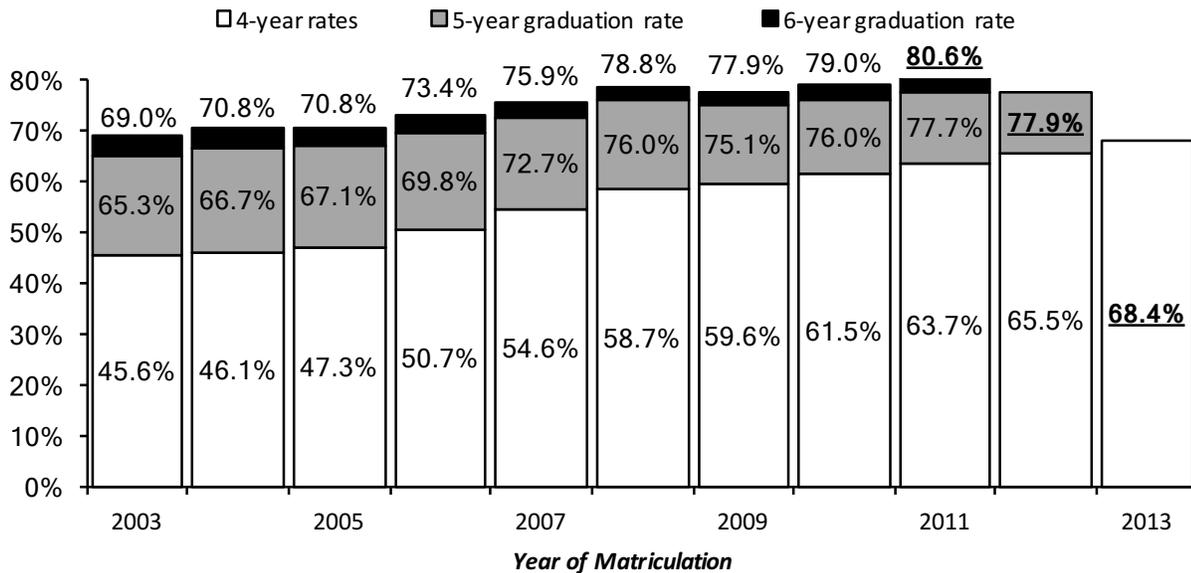

*Rates include graduates who transferred to another University of Minnesota campus. Graduation rates displayed in Table 4-3 are those reported to the national database (IPEDS), which counts only students who matriculated at and graduated from the same campus. As a result, the rates presented in the figure above differ slightly than those displayed in Table 4-3.
Source: Office of Institutional Research, University of Minnesota

- 6-year graduation rate of 82% for the 2015 cohort
- Average freshman ACT score > 28
- 3-year graduation rate > 65% for transfer students

Retention and Graduation Rates

The Twin Cities campus has made significant progress over the last decade in improving undergraduate graduation rates **(Progress Card Measure)**. Retaining students after their first year is the first step toward timely graduation. Figure 4-B and Figure 4-C show the most recent results, with rates at their highest levels ever, including first-year retention now at 93.4 percent. As a result of this progress, the Twin Cities campus rates are competitive with comparable institutions. Table 4-3 ranks the graduation rates of the Twin Cities campus's comparison group institutions (which include the most selective public research universities in the country), as well as the other public Big Ten Conference universities. While the table lists graduation rates for classes matriculating in 2009 (the most recent data available for comparison), the most recent Twin Cities campus rates (displayed in parentheses) suggest that the campus will rank even better when data for those classes become available for comparison. The graduation rates for student-athletes

Figure 4-C. First-year retention rates of first-time, full-time undergraduate students, Twin Cities campus, classes matriculating in 2006–2016
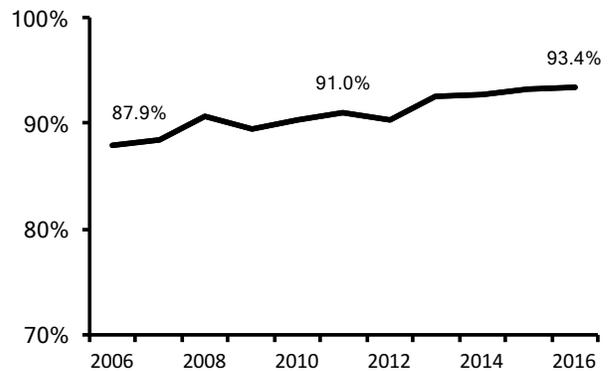
Source: Office of Undergraduate Education, University of Minnesota

Figure 4-D. New freshman retention, students of color and all other domestic students, Twin Cities campus, classes matriculating in 2006–2016
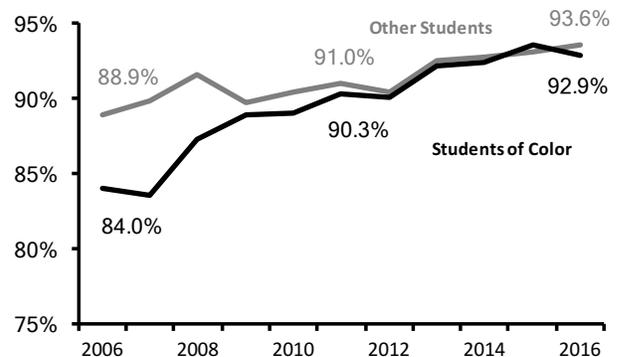
Source: Office of Undergraduate Education, University of Minnesota

Figure 4-E. New freshman retention by Pell status, Twin Cities campus, 2006–2016
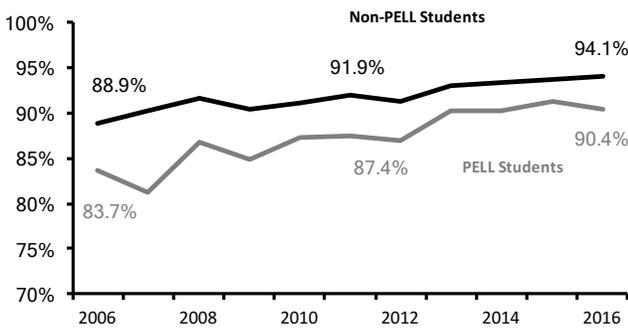
Source: Office of Undergraduate Education, University of Minnesota

as measured by the NCAA's GSR **(Progress Card Measure)** have continued to improve, increasing to 92 percent.

First-year retention rates for students of color have improved significantly (Figure 4-D) over the past ten years, as have retention rates for Pell-eligible students (Figure 4-E). Although data regarding student-of-color retention is aggregated, the University also closely monitors success of race and ethnicity groups. While gaps have been closing over time, there are variations from year to year.

Degrees Conferred

The Twin Cities campus has increased by more than 20 percent the number of undergraduate degrees awarded over the past decade, from 6,618 in 2006–07 to 7,807 in 2016–17 (Figure 4-F).

In response to changes in student interest and state and national employment needs, the Twin Cities campus is now awarding substantially more degrees in science, technology, engineering, and math (STEM) fields. From 2006–07 to 2016–17, the number of STEM degrees increased by 57 percent, from 2,240 to 3,519. STEM degrees awarded include all baccalaureate degrees in several broad categories as defined by the Department of Education. These STEM fields include agriculture, natural resources, engineering, computer sciences, biological sciences, physical sciences, mathematics, and health professions.

Figure 4-F. Undergraduate degrees awarded, Twin Cities campus, 2006–2007, 2016–2017
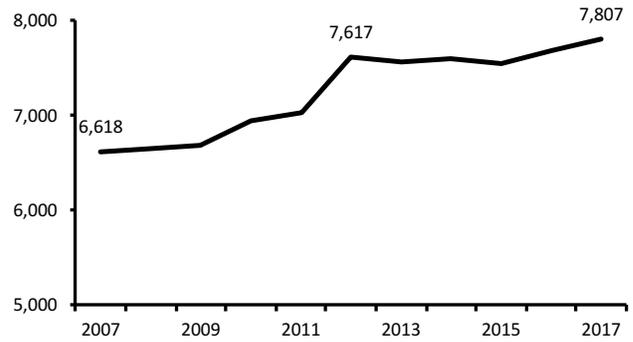
Source: Office of Undergraduate Education, University of Minnesota

Table 4-3. Retention (class matriculating in 2015) and graduation (class matriculating in 2010) rates sorted by four-year graduation rate, Twin Cities campus comparison group and Big Ten Conference public institutions

	1st-year Retention Rate	4-year Graduation Rate
*U. of California – Berkeley	97%	76%
*U. of Michigan – Ann Arbor	97%	75%
*U. of California – Los Angeles	97%	74%
*U. of Illinois – Urbana-Champaign	94%	70%
U. of Maryland – College Park	95%	69%
*Penn. State U. – Univ. Park	93%	68%
*U. of Florida – Gainesville	97%	67%
*U. of Washington – Seattle	94%	65%
U. of Minnesota – Twin Cities	**93%**	**61% (68%)**[1]
Indiana U. — Bloomington	91%	60%
Rutgers, State U. of New Jersey – New Brunswick	93%	59%
*Ohio State U. – Columbus	94%	59%
*U. of Wisconsin – Madison	95%	57%
*U. of Texas – Austin	95%	55%
Michigan State U. – East Lansing	92%	52%
U. of Iowa – Iowa City	87%	51%
Purdue U. – West Lafayette	92%	49%
U. of Nebraska – Lincoln	82%	36%

Source: Common Data Set
*Comparison Group Institutions
[1] Most recent UMTC four-year graduation rate (class matriculating in 2013)

DULUTH CAMPUS

Maintaining Access to the Duluth Campus

Affordable Access

With a unique combination of both land-grant and sea-grant missions, the University of Minnesota Duluth (UMD) occupies a distinctive place in the University system and is committed to being accessible to Minnesota students. UMD serves the citizens of the state; over 85 percent of UMD's undergraduate students are from Minnesota, with about half coming from the Twin Cities metro and half from greater Minnesota. In 2016, 35 percent of students in UMD's entering class were first-generation college students.

UMD ensures affordable access for students of all backgrounds and has expanded both merit and need-based scholarships to attract top-level students. In 2016, 40 percent of UMD students qualified for the University of Minnesota Promise Scholarship, a multi-year scholarship for Minnesota resident undergraduates with a family income of up to $120,000. In addition, UMD offered 240 Best in Class scholarships in 2016 to students who ranked either first or second in their high school class.

UMD distributes more than $107 million in financial support to undergraduate students annually. University scholarships comprise approximately $13 million of that aid. UMD places a strong emphasis on student financial literacy as part of its student financial support strategy. In 2016, UMD initiated the UM Borrowing Initiative, which provides each student borrower with a debt report card, including future implications of that debt. Research shows that this type of communication can positively impact time to graduation and overall academic progress as well as reduce debt load at graduation. Other University campuses will implement the debt report card in the next year.

The Duluth campus also added a financial aid educator position to work specifically with prospective students and their families. The position has enhanced guidance of families through the FAFSA and aid awarding processes. UMD has significantly increased funding for financial aid to help students manage the cost of their education (Table 4-4).

Diversity

The Duluth campus has a commitment to equity and diversity and has placed a high priority on creating an environment that is welcoming and inclusive. A campus change team was named in 2010 and charged with developing campus-wide action plans at all levels to create a more positive environment for diverse students, faculty, and staff. Efforts include increasing recruitment, retention, and support of diverse students, faculty, and staff; the integration of cultural diversity, cultural competence, and social justice topics into curriculum and campus life; increased training and development opportunities that promote equity, diversity, and social justice; and the implementation and rigorous enforcement of policies and procedures that advance cultural diversity and social justice, including progress on diversity initiatives as an explicit part of performance reviews of campus leadership.

In 2013, UMD added a cabinet-level leadership position to facilitate campus climate training and development for faculty, staff, administration, and students. Shortly thereafter UMD began a comprehensive Intercultural Leadership Development (ILD) training program. The ILD program recently completed its 13th cohort (234 faculty, staff, and administrators) and another two cohorts are planned for 2017–18. In addition to the ILD initiative, UMD has developed internal capacity to offer the Equity and Diversity Certificate Program, originally developed

Table 4-4. Student aid trends, degree-seeking undergraduates, Duluth campus, 2006 and 2016

	2006	2016
Gift Aid	$18.9m	$38.2m
Employment	$4.1m	$4.7m
Loans	$49.3m	$62.5m
Total Student Aid	$75.4m	$107.3m
% of Students Receiving Gift Aid	46%	64%

Source: Office of Institutional Research Student Aid Profile, University of Minnesota

and offered systemwide by the Office of Equity and Diversity (OED). UMD's training team offers three of the workshops per semester with 30 to 80 staff participating in each. Training about implicit bias in the search process is offered two to three times per semester at UMD. In addition, the UMD Employees of Color Mentoring Program continues to meet, with over 180 employees invited to attend monthly meetings.

In fall 2015, UMD students, staff, and faculty participated in a Campus Climate Survey. In 2016–17, the results were shared and idea sessions were held with various constituent groups to develop priorities and action plans for improving campus climate. A new webpage (d.umn.edu/campus-climate) was created to share and facilitate ongoing campus climate efforts.

The Duluth campus values diversity as a means of enriching the educational experience of all students and continues its strong commitment to building a more diverse student body. Studying and learning in a diverse environment helps prepare students to live and work in an increasingly heterogeneous and global society. To that end, UMD utilizes a holistic undergraduate admission review process by which the strength of the applicant is evaluated through multiple factors that incorporate academic measures, relevant co-curricular and work experiences, and other individual characteristics. Over the past decade, UMD has experienced steady growth in the percentage of students of color enrolled, as shown in Figure 4-G.

Transfer Student Initiatives

The Duluth campus is committed to increasing transfer student recruitment and academic success and has made a concerted effort over the past several years to become a more transfer-friendly institution.

For example, UMD's initiative *Link*, a partnership with Lake Superior College (LSC), continues to provide an education pathway for LSC students interested in completing their baccalaureate degree through UMD. A UMD staff member has open office hours one day a week at LSC to meet with students who are considering transferring. In the past year, 22 LSC students matriculated to UMD.

During spring 2016, UMD launched Transfer Prep review sessions for incoming transfer students. These sessions give incoming transfer students an

Figure 4-G. Percent undergraduate students of color by fall term, Duluth campus, 2007–2017
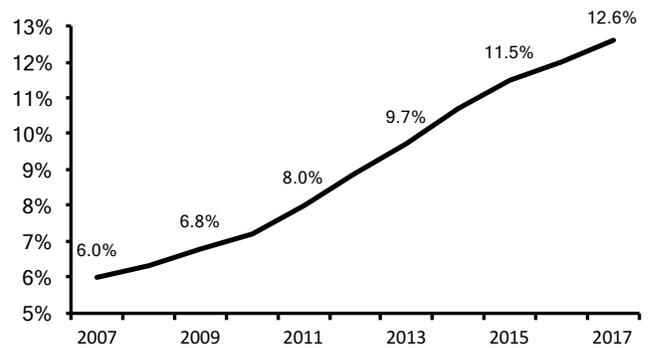
Source: Office of Institutional Research, University of Minnesota

opportunity to meet with a transfer specialist to have their records reviewed before they arrive at their Orientation, Advisement, and Registration session. In 2016–2017, over 130 transfer students participated in Transfer Prep review meetings. In 2017, UMD also set aside four of 28 scheduled Advisement and Registration sessions to focus specifically on transfer students. For fall 2017, UMD served almost 300 transfer students during these sessions.

Beginning in 2015, UMD initiated the Northland Partners Course Review project, in which over 700 courses from area schools were reviewed to ensure that a UMD transfer credit decision would be available for all 1xxx- and 2xxx-level courses from these schools. In addition, all 1xxx- and 2xxx-level courses from UMD's top ten transfer institutions were reviewed and transfer decisions for 1,450 courses were updated.

International transfer credit continues to increase. Over the past academic year, UMD developed a new international transfer credit process map and agreement template. In 2016–17, the campus registrar's office served students from 31 different institutions (24 of which had not previously been in UMD's process of evaluating academic credit for transfer). Note that the majority of transcripts are in an original language that is not English.

Attracting Outstanding Students to the Duluth Campus

In January 2015, UMD developed six initiatives for strategic investment in undergraduate enrollment (Table 4-5). Return-on-investment modeling and

Table 4-5. Fall enrollment, Duluth campus, 2009, 2014–17

	2009	2014	2015	2016	2017	Percent Change 2016 to 2017	Percent Change 2009 to 2017
Undergraduate	9,422	9,120	8,929	9,051	9,199	1.6%	-2.4%
Graduate	769	715	652	664	669	0.8%	-13.0%
Non-degree	1,130	903	942	946	948	0.2%	-16.1%
Total	11,321	10,738	10,523	10,661	10,816	1.5%	-4.5%

Source: Office of Institutional Research, University of Minnesota

accountability for achievement of established enrollment goals are key elements of each strategy.

Four initiatives allocated resources to programs currently at capacity but with demonstrated additional enrollment demand; in other words, programs requiring additional resources to meet student demand. These programs are being supported with additional instructional positions and one-time funds for space remodeling to increase capacity. The goal is to grow undergraduate enrollment by 350 students across these programs by fall 2019. As of fall 2016, three of the initiatives realized a total enrollment increase of 106 students and are on track to reach their future enrollment goals. One initiative did not realize its interim enrollment goal and is being reassessed before recurring resources are committed.

Two additional enrollment initiatives are focused on enrollment marketing efforts. The Office of Undergraduate Admissions is leading an effort to increase prospective student awareness of programs with enrollment capacity; in other words, programs *not* requiring additional resources to serve an increased number of students. Fourteen programs have been targeted, with the goal of an overall increase of 100 enrolled students within the next four years. A second enrollment marketing initiative is centered on currently enrolled students. Housed within Academic Affairs and aligned with campus student retention goals, this strategy reinforces the UMD brand and the value of a University of Minnesota degree and seeks to improve student messaging and student awareness and use of support resources. This initiative is anticipated to grow continuing student enrollment by approximately 75 students over the next three years. These initiatives are contributing to positive enrollment growth in both targeted programs and UMD's first-to-second year persistence rates.

Offering a Great Student Experience on the Duluth Campus

The Duluth campus overlooks the shores of Lake Superior in a thriving community that offers over 11,000 acres of public space, more than 160 miles of hiking trails, and a vibrant arts scene. *Outdoor Magazine*'s winner of "Best Outdoor Town in America," Duluth is a four-season vacation destination and international shipping harbor known for its natural beauty. The Duluth campus takes pride in providing a high-quality living and learning experience, abundant opportunities for undergraduate and graduate research, over 250 student organizations, and a strong presence in the cultural and intellectual life of the Duluth community. The campus consistently ranks among the top Midwestern regional universities in *U.S. News and World Report*'s "America's Best Colleges." Providing an alternative to large research universities and small liberal arts colleges, UMD attracts students looking for a personalized learning experience on a right-sized campus of a major university.

Undergraduate students can choose from 14 bachelor's degrees in 92 degree programs across five collegiate units, including the Labovitz School of Business and Economics, the College of Education and Human Service Professions, the School of Fine Arts, the College of Liberal Arts, and the Swenson College of Science and Engineering. The Duluth campus offers graduate programs in 19 fields and six cooperative programs offered through the Twin Cities campus, in addition to a two-year program at the University's School of Medicine Duluth and a four-year College of Pharmacy program.

Freshwater Research

The Duluth campus serves the state and the nation as a leader in freshwater research, supported by its position at the headwaters of one vast freshwater system, the Laurentian Great Lakes, and near the headwaters of part of another, the Mississippi River. Water directly or indirectly accounts for much of the wealth of this region. The amount and diversity of freshwater science, policy, and outreach that occurs in and around UMD is arguably unmatched by any other institution across the nation. The size and setting of the Duluth campus is ideal for close collaboration of faculty, undergraduate, and graduate students in freshwater research and provides UMD students with exceptionally strong preparation for postgraduate options in the job market.

UMD is actively addressing the "grand challenge" of water quality, water supply, and how to continue to provide clean freshwater to the region's communities, industries, and ecosystems. Freshwater research education and outcomes are integrated campus-wide through the work of faculty and staff associated with the Swenson College of Science and Engineering, Natural Resources Research Institute, Large Lakes Observatory, and Minnesota Sea Grant.

Undergraduate Research

UMD continues to be a leader in undergraduate research, providing opportunities in research, scholarship, and creative activity. The Undergraduate Research Opportunity Program has a very high participation rate of 150 to 200 students annually. Faculty grants and donor gifts add to the funding of undergraduate research, scholarship, and creative activity. Several departments have nationally recognized summer undergraduate research programs, the newest being the BURST program (Biological Undergraduate Research in Science and Technology).

All stakeholders on campus recognize the impact that undergraduate research, scholarship, and creative activity have in the academic life and future career engagement of students. For example, donor and UMD friend Jim Swenson valued his undergraduate research so much that the Swenson Family Foundation has funded summer research in chemistry and biochemistry every year for more than two decades. Brian Kobilka, the 2012 Nobel Prize winner in

chemistry, credits his involvement in undergraduate research at UMD for the start of his successful career as a scientist.

UMD celebrates undergraduate research and artistic activities with two Undergraduate Research/Artistic Showcases each year. These half-day campus events feature student posters, computer demonstrations, art exhibits, and theater productions, all providing information about projects completed by undergraduate students working with faculty mentors.

UMD is a strong contributor to the research mission of the University system. With a research footprint that is proportionally larger than its size, the Duluth campus complements the Twin Cities campus in serving the needs of the State of Minnesota.

Active Learning

The Duluth campus has made concerted efforts to incorporate active learning in its classrooms and curriculum. The past several years have seen a marked increase in the conversion of space on campus to active learning classrooms, most recently the Securian Learning Commons and Math Lab, located in Martin Library. The math lab opened in September 2016 and has doubled the capacity for developmental math courses while simultaneously offering more personalized learning. As a student-centered active learning environment, the lab incorporates up-to-date technology to help math students progress at a pace that fits each individual.

Beginning in 2014, the Swenson College of Science and Engineering developed a new strategic plan that included a goal to move its entire curriculum to active learning within a decade. Studies have demonstrated that active learning significantly improves student performance and integration of knowledge; increases retention of students in science, technology, engineering, and mathematics (STEM) fields and improves graduation rates; and improves recruitment and retention of underrepresented minorities and women in STEM disciplines. The college implemented a cohort model, with groups of faculty engaged in training, studying best practices, and redesigning courses. Presently, approximately 20 percent of the more than 180 faculty of the college are engaged in some form of active learning in their classrooms, and

more than half the faculty have engaged in the cohorts and/or workshops and plan to incorporate active learning into their classes. The college's formal goal is to include active learning methods in all classes by 2025; it is currently on pace to achieve this benchmark by 2021.

Recreational Sports Outdoor Program

UMD's Recreational Sports Outdoor Program (RSOP) has been a national leader in engaging students in healthy, active lifestyles and connections to the natural world through personal and professional experiences. RSOP programming areas include intramural sports, informal sports, fitness and wellness, sport and outdoor clubs, aquatics, kayaking and canoeing, stand-up paddle boarding, kiting and surfing, climbing, environmental education, outdoor trips, crafts, and youth programming. RSOP also serves employees and alumni through a wide variety of programming and facility options and contributes to the University's mission of outreach through youth and community programming.

Over 90 percent of UMD students participate in RSOP facilities and services. The overall RSOP and intramural participation rates are 20 percentage points above national benchmarks, placing UMD among the top schools in the nation. The latest major benchmarking occurred in spring 2016. Results include that:

- 91 percent participate in RSOP programs and services;
- 75 percent indicated that RSOP was important in their decision to attend UMD;
- 77 percent indicated that RSOP was important in persisting; and
- 73 percent indicated that their academic performance improved due to participation.

Preparing Duluth Campus Graduates for Success

In spring 2015, the Strategic Enrollment Management subcommittee of the Strategic Planning and Budget governance committee communicated a campus-wide goal of increasing first-to-second-year campus retention within the next three years and introduced

Figure 4-H. First-year retention rates of first-time, full-time undergraduate students, Duluth campus, classes matriculating in 2006–2016
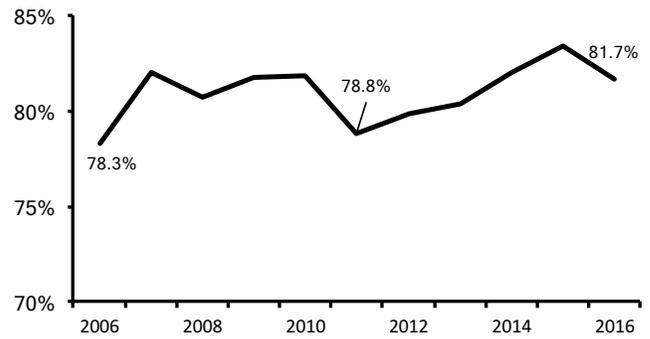
Source: Office of Institutional Research, University of Minnesota

a framework for achieving that goal (Figure 4-H). Demonstrable progress has been made and is being monitored through UMD's Action Plan for Student Retention, which includes more than 70 action items. Over $110,000 has been distributed through the student success and retention small grants program supporting course and program initiatives to improve academic success and student engagement in the freshman and sophomore years.

Using improved student success and retention as the foundation, the Duluth campus continues to work to improve graduation rates **(Progress Card measure)**. The twelve percent increase in four-year graduation rates and the seven percent increase in six-year graduation rates since 2003 (Figure 4-I), while maintaining a similar academic profile and increasing traditionally underrepresented populations, are evidence of the University's continuing commitment to student success and access. Retention and graduation rates lag behind recent initiatives to improve student persistence and so positive increases in graduation rates are expected over the next three to five years.

Table 4-6 shows how the Duluth campus compares with its peer group institutions, using rates for the class matriculating in 2009, the most current data available. As Figure 4-J shows, UMD awarded 23 percent more degrees in 2016–17 than in 2006–2007.

Figure 4-I. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Duluth campus, classes matriculating in 2003–2013

☐ 4-year rates   ◻ 5-year graduation rate   ■ 6-year graduation rate

Year of Matriculation
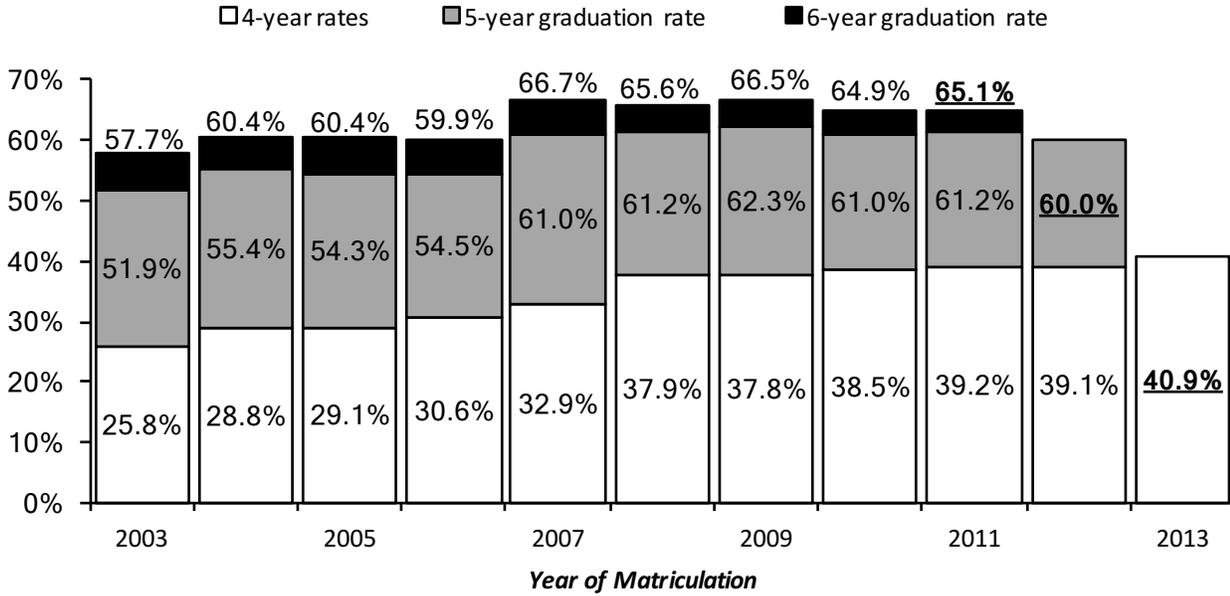
*Rates include graduates who transferred to another University of Minnesota campus. Graduation rates displayed in Table 4-6 are those reported to the national database (IPEDS), which counts only students who matriculated at and graduated from the same campus. As a result, the rates presented in the figure above differ slightly than those displayed in Table 4-6.
Source: Office of Institutional Research, University of Minnesota

Figure 4-J. Undergraduate degrees awarded, Duluth campus, 2007–2017
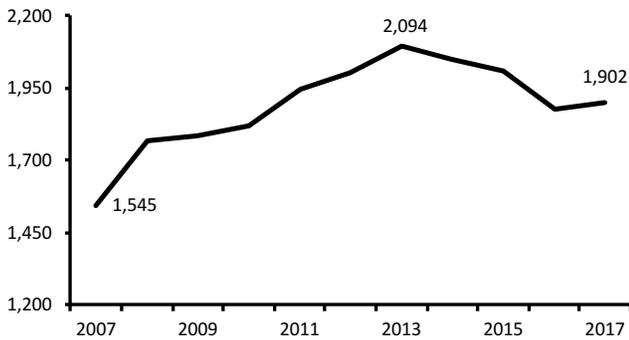
Source: Office of Institutional Research, University of Minnesota

Table 4-6. Six-year graduation rates (class matriculating in 2009), Duluth campus and comparison group institutions

	6-year Graduation Rate	Institutional Rank
CA Poly. State U.–San Luis Obispo	76%	1
Western Washington U.	71%	2
Col. of Charleston	68%	3
U. of Northern Iowa	68%	3
U. of Minnesota–Duluth	**60%**	**5**
South Dakota State U.	54%	6
Western Michigan U.	54%	6
U. of Michigan–Dearborn	53%	8
U. of N.C.–Charlotte	53%	8
Minnesota State U.–Mankato	49%	10
Southern Illinois U.–Edwardsville	49%	10
U. of Mass.–Dartmouth	46%	12
Comparison Group Average	58%	-

See footnote on Figure 4-I.
Source: Integrated Postsecondary Education Data System (IPEDS)

MORRIS CAMPUS

As a public liberal arts college, the University of Minnesota Morris occupies a distinctive place in the landscape of higher education and within the University system. Morris is the only public liberal arts college so designated in the state of Minnesota by the Council of Public Liberal Arts Colleges. With selective admissions and its focus on undergraduates in a residential, highly engaged learning community, Morris resembles the top private liberal arts colleges that populate the upper Midwest while serving a more diverse student population.

Morris is still young as an institution of higher education—the first college class entered in 1960. The college was founded by the University of Minnesota with strong support and advocacy from regional community leaders who envisioned a public liberal arts college on the Minnesota prairie. The historic campus was first home to an American Indian boarding school (1887–1910), then an agricultural boarding high school (1910–1963). This history informs the campus today and forms the foundation for the Morris campus's unique opportunity, obligation, and dedication to serving rural students, American Indian students, and others from traditionally underserved backgrounds.

The campus mission unfolds within the context of the land-grant charge of the University system. The Morris campus provides a rigorous undergraduate liberal arts education, preparing its students to be global citizens who value and pursue intellectual growth, civic engagement, intercultural competence, and environmental stewardship. The Morris campus is a center for education, culture, and research for the region, and is committed to outstanding teaching, a dynamic learning environment, innovative faculty and student scholarship and creative activity, and public outreach. The residential academic setting fosters collaboration, diversity, and a deep sense of community.

Morris classes are taught by a dedicated and talented faculty, 99 percent of whom have earned terminal degrees in their fields. They are committed to teaching and mentoring undergraduates, and are recognized with the highest per capita membership in the University's Academy of Distinguished Teachers of any University campus or college. They value and embrace the University's commitment to research, scholarship, and the production of artistic work. In 2016, the 130 Morris campus faculty members achieved over 115 research and creative activity accomplishments, including 75 refereed journal articles—many with students as coauthors.

Maintaining Access to the Morris Campus

Enrollment Strategy

The Morris campus's enrollment strategy has been developed within the context of its 2007 strategic plan. The plan calls on the campus to maintain selective admissions; to reflect the state and region's growing racial and ethnic diversity within the student body; and to increase the number of international students to add global perspectives to student life. It also affirms the continuing Morris commitment to serve West Central Minnesota and the state well.

Today, Morris is one of the state's most diverse universities and the only four-year Native American Serving Non-Tribal Institution in the upper Midwest (U.S. Department of Education). American Indian students comprise under two percent of undergraduate students in Minnesota and the United States. In comparison, American Indian students comprise 21 percent of the Morris campus degree-seeking student population. Overall, American Indian students, students of color, and international students comprise over 40 percent of the Morris student body.

The campus enrollment strategy's focus on recruiting and retaining a talented group of undergraduates has been consistent for decades, with the average ACT score for entering students remaining stable at 25 for over ten years. The combined focus on selectivity and diversity in an undergraduate-focused residential setting makes Morris a unique campus within the University system and in the state. Enrollment goals and strategies will be revisited during the strategic planning process beginning fall 2017.

Accessible to Minnesotans

The Morris campus is accessible to Minnesota students, many from traditionally underserved backgrounds. In fall 2017, nearly 80 percent of Morris students are from Minnesota; about a third are from the Twin Cities metropolitan area. The campus continues to serve students from Stevens County and the immediate region at approximately the same percentage as it always has—however there are fewer rural high schools and regional graduates than there were when the Morris campus opened in 1960.

Accessibility and Underserved Student Populations

In fall 2017, 31 percent of degree-seeking students on the Morris campus are students of color and American Indian students, the highest percentage in the University system (Figure 4-K). Twenty-one percent are American Indian students, and the Morris campus has the highest percentage of Native students at a four-year, non-tribal institution in the upper Midwest. When considering only the first-year class, students of color and American Indian students comprise 39 percent of new students in fall 2017. Morris's record of success serving these students positions the campus well to respond to the changing demographic trends in the region, the state, and the nation.

Forty percent of the Morris campus's 2017 new first-year students will be the first generation of their family to graduate with a four-year baccalaureate degree. Overall, first-generation college students comprise approximately one-third of the Morris student body.

The campus has sought external funding and directed internal University resources to support the success
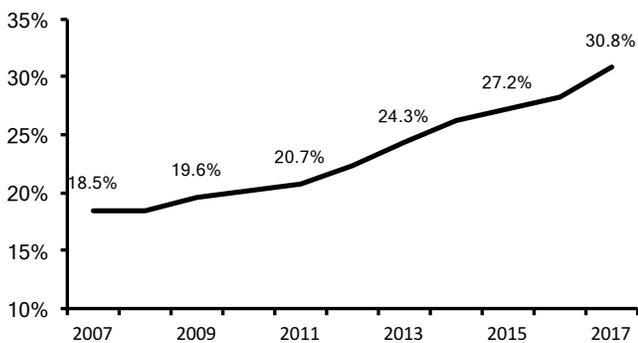
of its diverse and talented student body. In July 2015, the campus received a five-year grant from the U.S. Department of Education to establish a TRIO Student Support Services project at Morris. With total funding of over $1 million, the project is dedicated to supporting the college success of first generation students from low-income households and students with disabilities. In August 2015, Morris received a second federal grant from the U.S. Department of Education under the Native American Serving Non-Tribal Institutions (NASNTI) program of Title III to establish the Native American Student Success program at Morris. In fall 2016, academic coaching and support services were expanded to include all first-year students.

In fall 2017, the campus received a five-year, $1.2 million TRIO Ronald E. McNair Post-Baccalaureate Achievement (McNair) Program grant from the U.S. Department of Education, dedicated to preparing cohorts of low-income, first-generation students and students from groups underrepresented in graduate education for doctoral study. The campus expects that, once fully implemented, these efforts will have a positive impact on student success, persistence, and retention.

Access and Affordability

Morris serves an increasing number of students with financial need. In fall 2017, over 30 percent of Morris students received Pell Grants, compared to about a quarter of students in fall 2007. Overall, 84 percent of Morris students received financial aid in fall 2017. The campus offers three merit-based scholarships. An "achievement" scholarship is awarded to students who exhibit exceptional academic promise. In addition, two scholarships are awarded based on previous academic achievement and performance; students who receive these scholarships enroll and persist at rates well above the Morris campus's average for admitted students.

In addition to these grants and scholarships, the Morris campus offers a federally mandated and state-statute-supported American Indian tuition waiver unique to the Morris campus and tied to its history as an American Indian boarding school. While the unrealized tuition dollars associated with the waiver poses a growing and significant financial challenge for the campus, Morris remains fully committed to

Figure 4-K. Percent undergraduate students of color by fall term, Morris campus, 2007–2017

Source: Office of Institutional Research, University of Minnesota

the tuition waiver. It provides an attractive incentive to qualified Native students (admitted with the same requirements as all students) to enroll and persist, with educational benefit for these students and for the campus as a whole.

Attracting Outstanding Students to the Morris Campus

The Morris campus is selective, with an average ACT score of 25 for entering students—an unusually high level of academic success for a campus enrolling such a high number of students from populations historically underrepresented in higher education.

Morris students have earned a reputation as smart and action-oriented, excelling within the classroom while also taking their learning out into the world. Morris students are responsible for a number of successful initiatives on campus, including the student-run recycling program; the composting initiative; the green revolving fund; the organic garden and the Native American garden; and the weekend bus that transports students to and from the Twin Cities.

Morris students win national awards—including the American Indian Science and Engineering Society "best chapter" award and the Association for the Advancement of Sustainability in Higher Education student leadership award. In 2017, four Morris students were awarded Fulbright scholarships.

The Morris campus is highly ranked by many national publications—including by *U.S. News and World Report* as a top-ten public liberal arts college for 18 consecutive years; by the Sierra Club's *Sierra* magazine as a top-40 "Cool School" for five consecutive years (2017); by *Money* magazine as one of the ten most improved colleges and universities in the country based on its increased graduation rate (2016); in the *Forbes* annual ranking for best colleges and universities in the nation (2017); and by Fiske in its annual guide to "the best and most interesting" schools in the United States, Canada, and the United Kingdom (2017).

Offering a Great Student Experience on the Morris Campus

The Morris campus offers a distinctive student experience, preparing students for success and producing outcomes that matter. With its undergraduate, residential focus, the campus offers a distinctive value proposition as a public "private," providing the same focused experience as the upper Midwest's many excellent private liberal arts colleges, but at half or a third the price, even factoring in typical financial aid packaging at the privates. The Morris campus's ongoing efforts to create a model sustainable community make it an exciting destination for young people poised to invent a new future.

With an average class size of 16 and a student/faculty ratio of 14:1, Morris students are taught by a faculty with the University's highest percentage of Horace T. Morse award winners for excellence in undergraduate education. Morris also supports a rich environment for student engagement. National Survey of Student Engagement data (2017) show that 95 percent of Morris seniors participated in at least one (and 79 percent participated in two or more) high-impact practices recognized for transformational effects on student learning and success (e.g., service-learning, research with faculty, internship/field experience, study abroad, a culminating senior experience), well above students at other public liberal arts colleges (see Table 4-7).

Morris students serve as teaching assistants, peer mentors, and tutors, and present at professional conferences alongside their faculty mentors. These experiences, of the type and quality often reserved for graduate students, are a springboard for meaningful employment and post-baccalaureate education.

Students are advised and mentored by their faculty, with professional success coaches added in the last three years to augment Morris's long-standing faculty advising model. Coaches interact with students and connect them to the many support resources available, including the Office of Academic Success, counseling resources, and One Stop student services. The ultimate goal is to promote student success and improve retention.

Table 4-7. Student engagement rates, Morris campus and comparison group institutions, spring 2017

	Morris Seniors	COPLAC	NSSE All	Bac LA
Completed a culminating senior experience (capstone, project, thesis)	94%	77%	69%	85%
Attended art exhibits, dance, music, theater, or other performances	81%	63%	55%	78%
Participated in co-curricular activities during senior year	83%	61%	57%	85%
Held a formal leadership position in a student group	63%	46%	43%	69%
Worked on campus in a paid position during senior year	63%	46%	43%	69%
Worked on a research project with a faculty member	52%	41%	35%	53%
Studied abroad	42%	20%	21%	43%

Source: National Survey of Student Engagement

This table presents the percentage of seniors engaging in an activity prior to graduation at Morris compared with Council of Public Liberal Arts Colleges (COPLAC) peers as well as all four-year universities participating in the National Survey of Student Engagement (NSSE All). The Carnegie national Baccalaureate Liberal Arts colleges (Bac LA) group, of which Morris is a part, provides an aspirational comparison. This group of largely private colleges (nearly 90% are private), led by Williams College, Amherst College, and Bowdoin College, tend to be more well-resourced and serve more traditionally college-bound student populations with higher expectations for student engagement.

The Morris campus has a robust service-learning and engagement program, partnering with 80 area agencies, businesses, and organizations to enrich student learning and serve community needs. One example is Tutoring, Reading, and Empowering Children (TREC), a long-standing partnership that provides Morris students with opportunities to tutor and mentor children. TREC tutors are work-study, volunteer, or academic service-learning students serving at a variety of sites, including the Morris Public Library and bilingual programs on campus. More than 100 children participate in TREC annually, and assessments indicate that TREC participants make progress in school readiness, academic skills, and social skills as a result of their work with TREC tutors.

In 2015, the Morris campus was awarded the Carnegie Classification for Community Engagement, a prestigious designation the campus holds until 2025. Morris has been included in the federal President's Honor Roll of campuses recognizing the institution's outstanding commitment to community service.

A variety of student opportunities add value to the undergraduate experience and reflect the Morris campus mission. For example, 42 percent of Morris students have studied abroad by the time they graduate, which promotes the development of global citizenship and gives students experience and maturity that serve them well when they leave the institution.

More than half of Morris graduates have deepened their learning through mentored work with a faculty member on a research project. Many of these projects provide student stipends and research support through the University's Undergraduate Research Opportunities Program; the National Science Foundation; the Howard Hughes Medical Institute grant; the Truckers and Turnover Project, funded by Schneider Trucking in Green Bay, Wisconsin; the Center for Small Towns; other grants, and donor-funded research awards.

In the most recent National Survey of Student Engagement, nearly 90 percent of Morris seniors reported that, if they could start college all over again, they would go to Morris (5 percentage points above seniors at other public liberal arts colleges) and 93 percent rate their overall educational experience at Morris as good or excellent, with the majority choosing excellent.

Preparing Morris Campus Graduates for Success

Ninety-five percent of Morris students who graduated in 2015 indicated that they were employed and/or in graduate or professional school one year after graduation; nearly one-fourth of Morris students proceed directly to graduate and professional school following graduation. Figure 4-L shows the total number of undergraduate degrees awarded.

Retention continues to be a challenge for all higher education institutions, and Morris is no exception. In the past several years the first-year retention rate has hovered around 80 percent (Figure 4-M). This is accounted for in part by the challenges found in enrolling a talented but under-resourced undergraduate population. As described above, the campus has implemented a new model of advising and coaching intended to boost retention toward the campus goal of 90 percent. In addition, the campus has expanded its peer mentoring program and academic alert initiatives, expanded its grant-funded individualized academic success plans to include all students, and is evaluating a plan for parallel major program pathways. In fall 2017, Morris will begin a multi-year, campus-wide project focused on increasing first-year student retention. The three components of the work are: conducting a systematic, integrated assessment of the campus's large suite of first-year retention efforts; utilizing system resources to provide additional mental health and well-being programming; and making participation in high-impact practices, a hallmark of the Morris experience, more explicit, available, and accessible to first-year students.

Graduation rates continue to be high when compared to many other public, four-year baccalaureate institutions, especially when characteristics of

Figure 4-L. Undergraduate degrees awarded, Morris campus, 2007–2017

Source: Office of Institutional Research, University of Minnesota
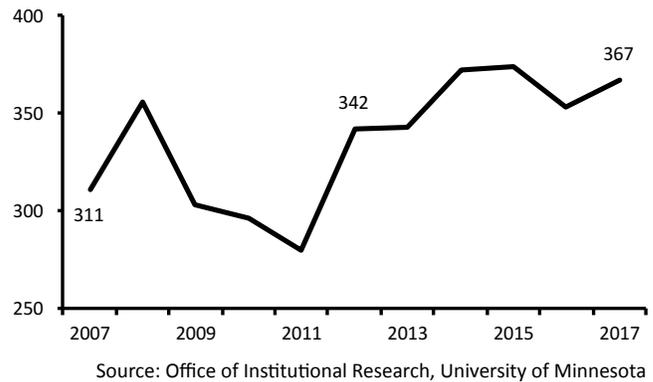
Figure 4-M. First-year retention rates of first-time, full-time undergraduate students, Morris campus, classes matriculating in 2006–2016

Source: Office of Institutional Research, University of Minnesota
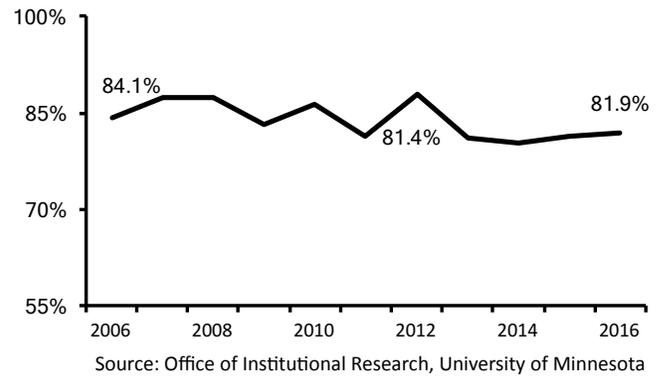
Figure 4-N. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Morris campus, classes matriculating in 2003–2013
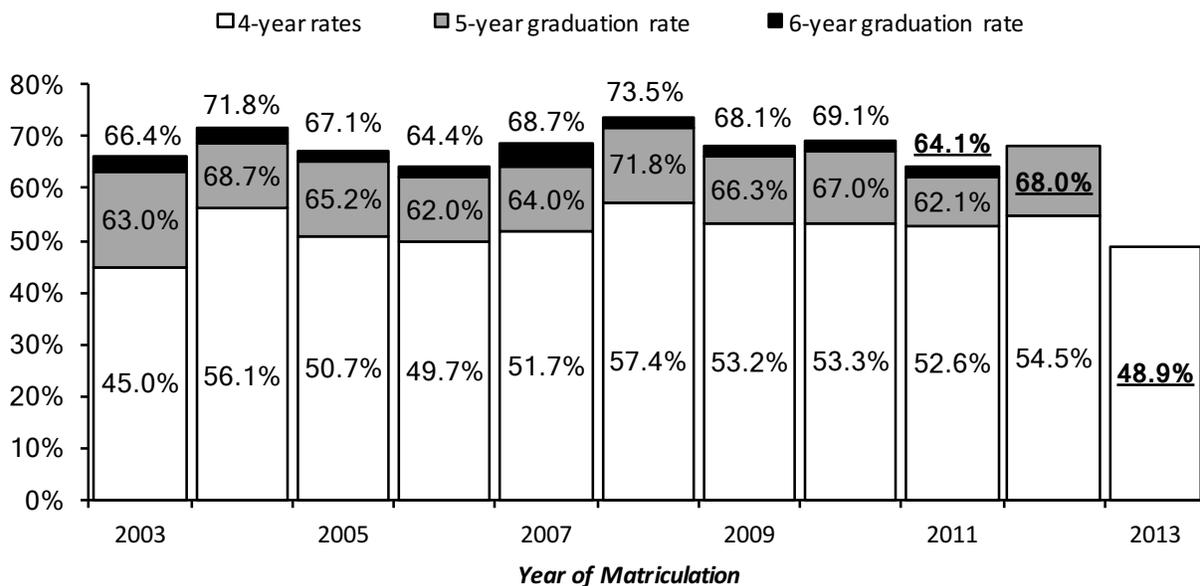
*Rates include graduates who transferred to another University of Minnesota campus. Graduation rates displayed in Table 4-8 are those reported to the national database (IPEDS), which counts only students who matriculated at and graduated from the same campus. As a result, the rates presented in the figure above differ slightly than those displayed in Table 4-8.

Source: Office of Institutional Research, University of Minnesota

the student population are taken into account **(Progress Card Measure).** A Midwestern Higher Education Compact 2015 report ranks Morris as the most effective and efficient four-year university in Minnesota. The study's two metrics allow a more meaningful comparison of graduation rates and cost-per-graduate among disparate institutions, taking into account differences in demographics and environments. Morris produces more graduates than expected (a high Effectiveness Score) while spending less than expected per graduate (a low Expenditures Score). Of the 634 high-performing, four-year institutions included in the national report, Morris

ranks in the top five percent. There are only 27 four-year universities in the nation that outperform Morris on both metrics simultaneously.

About 50 percent of Morris students graduate in four years. The 2013 four-year graduation rate of 49 percent and six-year rate of 64 percent are lower than campus goals, although comparable to peer institutions (Figure 4-N). Table 4-8 shows how the Morris campus compares to each of its comparable peer institutions and to the average of its aspirational peers. Rates are for the class matriculating in 2009, the most current data available.

Table 4-8. Six-year graduation rates (class matriculating in 2009), Morris campus and comparison group institutions

	6-year Graduation Rate	Institutional Control	Institutional Rank
St. Mary's Col. of Maryland	78%	Public	1
Concordia Col.–Moorhead	73%	Private	2
Coe Col.	67%	Private	3
Albion Col.	65%	Private	4
U. of Minnesota–Morris	**65%**	**Public**	**5**
Lycoming Col.	64%	Private	6
U. of N.C.–Asheville	60%	Public	7
U. of Maine–Farmington	59%	Public	8
SUNY at Purchase Col.	58%	Public	9
Mass. Col. of Liberal Arts	52%	Public	10
U. of Virginia's Col. at Wise	41%	Public	11
Comparable Group Average	62%	-	-
Aspirational Peer Average*	85%	Private	-

See footnote on Figure 4-N
Source: Integrated Postsecondary Education Data System (IPEDS)
*Aspirational peer institutions: Macalester College (90%), St. Olaf College (87%), Kalamazoo
    College (83%), DePauw University (82%), Gustavus Adolphus College (82%)

CROOKSTON CAMPUS

Maintaining Access to the Crookston Campus

Beginning its 25th year as a baccalaureate-level institution (and its 51st as an institution of higher learning), the Crookston campus attracts a diverse group of high-potential students—both traditional and non-traditional—from across the region, state, country, and globe. Students choose Crookston because they seek a supportive, small-campus experience, a distinctive academic program, and/or a personalized online experience—all while earning a degree with the prestige of the University of Minnesota. The campus serves as an important access point to the University's programs for citizens living in northwest Minnesota and from across the entire state; 47 percent of on-campus students come from rural Minnesota and 17 percent from the seven-county Twin Cities metro area, while 35 percent of online students live in the Twin Cities. Accessibility is reflected in enrollment trends.

As shown in Figure 4-O, 16.4 percent of Crookston's degree-seeking students identify as students of color, and, based on country of citizenship, Crookston's student body includes representation from 42 countries (fall 2017). In addition, the campus has a long history of serving a significant number of first-generation students and students from low socio-economic backgrounds. Recruitment of these students is part of an intentional strategy that aligns with the Crookston campus's core values, which include diversity and student success.

Figure 4-O. Percent undergraduate students of color by fall term, Crookston campus, 2007–2017
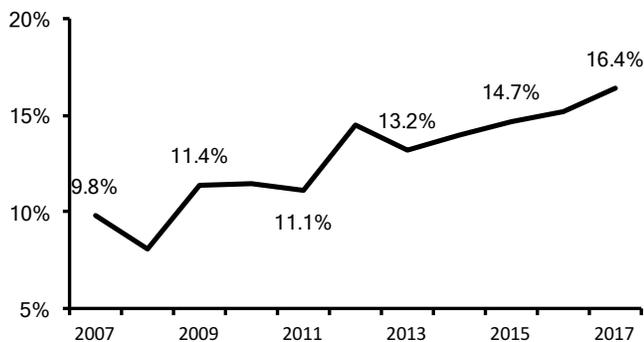
Source: Office of Institutional Research, University of Minnesota

Traditionally, a large percentage of the new high school graduates attending Crookston are first-generation college students—for fall 2017 it is 40 percent. These students are drawn to the campus's personalized focus on teaching and advising, as well as its small class sizes and numerous leadership opportunities. Conditionally admitted and at-risk students—and essentially all students—benefit from the Crookston campus's small classes and personalized, supportive environment.

The Crookston campus continues to be extremely cost efficient and cost effective, as demonstrated by the relatively low expenditure per degree within the University system. It also offers the lowest tuition rate within the system, in part to serve students with the lowest average family income. For fall 2017, students enrolled at Crookston:

- come from families with the lowest average annual household income, $64,805, for students within the University system who applied for and received financial aid;
- receive the need-based Federal Pell Grant at a higher rate, 34 percent, than students at the other system campuses; and
- are significantly more likely to be first-generation college students (38 percent).

Since it began offering baccalaureate degrees in 1993, the Crookston campus has drawn a steady number of transfer students. Due to historically strong relationships with two-year colleges, Crookston has developed more than 50 active articulation agreements with community and technical colleges across the Upper Midwest. The three-year graduation rate for transfer students choosing to attend classes on campus is 66 percent. The three-year graduation rate for transfer students opting for online study is significantly lower, at 28 percent, but that is not surprising given that the majority of online students are part-time students.

Because of its relatively small size and its entrepreneurial faculty and staff, the Crookston campus has a strong record of being nimble and rejecting complacency, and it has a demonstrated history of adapting to and embracing new technologies such as online learning. Crookston's initial online degree program had its first graduates in 2001. Today,

14 of the 34 majors are offered fully online as well as on campus, and more than 50 percent of total degree-seeking student enrollment is composed of online students (Figure 4-P). An extension of the modern land-grant mission, these online degree programs allow working professionals the opportunity to complete their bachelor's degree and advance within their career paths when traditional programs don't meet their needs. Students attending online overwhelmingly fall into the non-traditional category. The average age of these students is 31.8 (with 77 percent over age 25); they are enrolled for an average of nine credits; and typically they are employed. Most have already completed a significant number of college credits (an average of 68 transfer credits). While they are predominantly Minnesota residents (69 percent), there is rich diversity among Crookston's online students, with 17 percent identifying as students of color and 30 countries represented (fall 2017).

In addition to degree-seeking students, the Crookston campus serves other non-traditional students. For example, College in the High School (CIHS) and Post-Secondary Enrollment Option (PSEO) students are high school students concurrently earning college credit, and they comprise 97 percent of Crookston's 1,037 non-degree students (fall 2017). Crookston also serves eleven non-degree students through its English as a Second Language (ESL) program. Through these programs, the Crookston campus helps make higher education accessible and more affordable for students and their families, and gives them the flexibility to graduate from college more quickly or to take lighter course loads while balancing employment, completing

internship requirements, conducting undergraduate research, and/or participating in intercollegiate athletics.

Attracting Outstanding Students to the Crookston Campus

The Crookston campus attracts outstanding students through its distinctive learning environments and academic programs. The Crookston campus's marketing theme "Small Campus. Big Degree." is reinforced by the reasons students give for choosing to attend. Of the respondents to the new-student survey in fall 2017, 79 percent indicated the size of campus was a reason for selecting the Crookston campus, 68 percent indicated that the Crookston campus was their first-choice college, and 60 percent indicated as a reason the type of academic programs available.

Crookston's average ACT score for incoming new high school graduates is 22.1, which is lower than the other campuses in the University system. Published research acknowledges limitations of standardized tests as the sole gauge of likely postsecondary success, and at least one study noted a positive correlation between test scores and socioeconomic status. For fall 2017, of Crookston's incoming new high school graduates, 29 percent come from families with annual income of $48,000 or less. Crookston's holistic admissions process considers ACT scores along with high school GPA and leadership experience, and it often involves personal interaction with the applicant. Crookston's smaller campus environment and strong focus on student support services further nurture and enhance

Figure 4-P. Total enrollment and online enrollment, Crookston campus, fall 2007–2017

Legend:
- □ Total Degree Seeking Students
- ■ Student Seeking Degrees through Online Delivery

Year	Total Degree Seeking Students	Student Seeking Degrees through Online Delivery
2007	1142	93
2008	1207	149
2009	1310	262
2010	1462	355
2011	1600	471
2012	1802	678
2013	1813	818
2014	1876	935
2015	1874	963
2016	1821	921
2017	1797	967
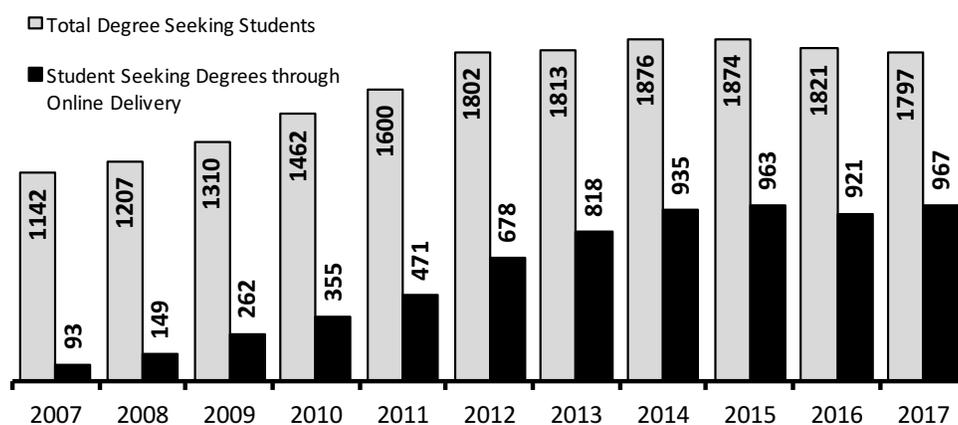
Source: University of Minnesota Crookston

student success and, combined with this holistic admissions process, allow a wider array of students to fulfill their potential while maintaining access to University of Minnesota programs.

Distinctive majors attract excellent students. The Crookston campus offers several majors that are not found elsewhere in the University system, including agricultural systems management, agronomy, applied health, aviation, criminal justice, equine science, golf and turf management, horticulture, manufacturing management, quality management, and software engineering. The pre-veterinary option in animal science and equine science has been growing for many years, drawing students from across the United States. It has also developed a distinctive measure of quality: in the past five years, 40 percent of Crookston students who completed the pre-vet emphasis (including those admitted into the VETFAST program) have gone on to veterinary school. The national average of successful applicants is approximately 10 percent.

The Crookston campus continues to expand the capacity for undergraduate research to meet the need of the increasing numbers of students who indicate a desire to continue their education beyond a baccalaureate degree. Opportunities for students to engage with faculty in research are growing due to the hiring of new faculty adept at research along with cost-effective space renovations resulting in more and better lab space. Crookston's acceptance (in 2015) into the Small World Initiative (SWI) escalates the role and visibility of undergraduate researchers as they work with biology faculty in this international research effort to find countermeasures to antibiotic resistance and the resulting diminishing supply of effective antibiotics—among the biggest grand challenges in global health today. Biology faculty and students have been researching alternatives in this area for a number of years, and through the affiliation with SWI, Crookston has joined a larger effort. The Crookston campus is the first in the University system to be a part of this initiative.

Undergraduate researchers will also play a significant role in a new three-year study at Crookston, funded by the state's Environment and Natural Resources Trust Fund, that will examine the ecological role of freshwater sponges and how they may reflect or indicate levels of water quality. This research will be conducted in the new Center for Collaborative Research, Crookston's first centralized, self-contained, transdisciplinary lab research facility. The lab— funded by the University's Research Infrastructure Investment Program with a match from Crookston campus—will become operational in early 2018.

Technology has been embedded throughout the curriculum at Crookston since its founding in 1966. The campus's longstanding laptop initiative puts computers in the hands of all full-time, on-campus students and faculty members. This program will be reviewed during the 2017–2018 academic year to determine what might be modified to meet current student, faculty, and employer needs. A specialized informatics laboratory offers students the opportunity to work with emerging technologies. This lab is used by students from many different majors, but it is especially important to software engineering students for software development and research. Crookston has prioritized strengthening its software engineering degree program through faculty hires and student recruitment, as this has significant potential to draw talented students as well as to contribute to society.

Another of Crookston's foremost technology achievements has been the development of a number of degree programs that are offered entirely online, positioning the campus as a leader in online learning within the University system. Crookston faculty and staff continue to find ways to engage online students in campus life through video streaming of events and to offer support services, such as tutoring, online. An added benefit is that online coursework offers flexibility not just for online-only students, but also for on-campus students with class schedule conflicts.

Crookston's culture is one of continuous improvement. A member of the Academic Quality Improvement Program (AQIP) pathway since December 2010, the campus successfully completed its Comprehensive Quality Review under the AQIP pathway in November 2015, earning many compliments from its Higher Learning Commission (HLC) site visit team as well as reaffirmation of accreditation from HLC in February 2016. An example of a recently completed AQIP Action Project is "Developing Advisory Assessments for Optimal Mathematics Placement," which was completed in December 2016. Additionally, a new orientation process was implemented in fall 2017 to

facilitate the transition to the Crookston campus for incoming transfer students. As a member of the HLC's Persistence and Completion Academy, the campus will focus considerable continuous improvement efforts on increasing student retention and graduation rates over the next four years.

The Crookston campus continues to use existing programmatic strengths as well as current faculty expertise to offer an expanded array of majors for students. With very little additional cost, this helps drive enrollment through recruitment and retention, providing new and current students with more choices. In June 2015, two additional majors—Exercise Science & Wellness and Medical Laboratory Science—were approved by the Board of Regents to be available to students in fall 2015. The Board of Regents also approved a new major in Agricultural Education, which was reviewed by the Minnesota State Board of Teaching and granted licensure approval in October 2015. In 2017, the board approved an online offering of the current major in Agricultural Business (to begin in fall 2018) and a new Honors Program that began in fall 2017.

Offering a Great Student Experience on the Crookston Campus

Students receive outstanding support and have an enriching experience through small class sizes, strong personalized advising, and access to faculty, experiential learning, and athletics.

The Crookston campus's small class sizes offer students personalized attention and greater access to faculty members for advising and mentorship. Presently, 90 percent of on-campus classes have 25 or fewer students. The largest class is 59 students, and the average class size is 14. Online classes, which average 21 students per class, also offer a very personalized, quality educational experience.

A hallmark of the Crookston campus is its focus on experiential learning. Students learn concepts and actively apply them through projects, simulations, field trips, site visits, community engagement and service learning projects, and interactions with professionals in the field. An internship experience is required

of most on-campus students. Online students also complete an internship unless their work experience allows them to waive the internship requirement. A number of classes also incorporate service-learning projects, working with the campus's Office of Community Engagement.

Co-curricular opportunities enhance the student experience by connecting students to one another as well as to the campus and local communities and by fostering leadership development. Approximately 40 student clubs and organizations, along with student government, athletics, and residential life peer leadership and programming, offer options for personal and leadership growth. Most academic majors have a corresponding student club or organization, and all officially recognized student clubs are required to participate in two service projects per semester. In 2016–2017, Crookston students served a total of 11,598 volunteer hours.

NCAA Division II athletics provides student-athletes with balanced opportunities for academic excellence, leadership, and development of athletic skills. Students continue to cite Division II athletics as a significant reason they choose to attend the Crookston campus, and student-athletes comprise 30 percent of Crookston's on-campus enrollment. In 2016–2017, 23 percent of Crookston's student-athletes earned Northern Sun Intercollegiate Conference (NSIC) All-Academic Team honors, recognizing 3.2 or higher GPAs. Using the same criteria, that number rises to 27 percent earning All-Academic honors with the inclusion of student-athletes involved in equestrian sports (equestrian sports are not a fully sanctioned NISC sport at this time; Crookston competes in equestrian sports through the Intercollegiate Horse Show Association).

While Crookston faculty members' primary focus is on teaching, many also conduct research and engage in scholarship, frequently involving students in that work. Such faculty mentorship and role modeling offer students excellent graduate school preparation. There is growing interest in and support for undergraduate research by faculty from all academic departments. In addition to six Undergraduate Research Opportunities Program projects, 13 Crookston Student Research and Creative Works projects were funded in 2016–2017.

Five Crookston students presented their projects at the 2017 National Conference on Undergraduate Research; one student's undergraduate research project led to a research internship in Nancy, France; and another student interned for six months at one of the premiere equine medical facilities in the country, Hagyard Equine Medical Institute in Lexington, Kentucky. Two faculty members are integrating active, ongoing research into the undergraduate curriculum throughout all microbiology lab sections. Several faculty members also engage in the scholarship of pedagogy. This applied research, which is often based in the faculty member's discipline, contributes directly to Crookston students' learning experience while also disseminating valuable pedagogical insights through publications and presentations.

In the area of internationalization of the curriculum, the Crookston campus works closely with units on the Twin Cities campus, including the Global Programs and Strategy Alliance, the Learning Abroad Center, the Confucius Institute, International Students and Scholars Services, and the Center for Educational Innovation. Two biology faculty members mentored faculty in both the 2014–2015 and the 2015–2016 cohorts of the University-wide Internationalizing Teaching and Learning (ITL) Program. As a result of this mentoring, 75 percent of the biology faculty at Crookston have received ITL training. In spring 2016, the campus held its first annual conference open to all faculty members for internationalizing the curriculum. In fall 2017, the campus began a process to evaluate the effectiveness of these efforts.

The Crookston campus has been recognized for its quality programs by such organizations as *U.S. News & World Report*, which ranked the campus first in the 2018 "Top Public Regional Colleges–Midwest" category (released September 2017). *U.S. News* has ranked the Crookston campus among the top four in this category for the past 21 consecutive years. Crookston's various online programs have also ranked highly in online resources such as *Niche*, *Online College Plan*, *College Choice*, and *The Best Schools*.

The Crookston campus provides a safe and welcoming environment for its students, employees, and visitors. The campus will continue its efforts reflected by its ranking among the safest public campuses in Minnesota and among the safest in the country.

The new campus Wellness Center opened fall 2016. Well-received by the student body, the facility offers on-campus students a space to develop wellness habits and supplements the living-learning environment in many ways, especially for students enrolled in Crookston's major in Exercise Science & Wellness as well as the established major in Sport & Recreation Management. Facilities like this have been shown to aid in recruitment and retention efforts, as well.

Preparing Crookston Campus Graduates for Success

The Crookston campus continues to improve retention and graduation rates **(Progress Card measure)**, and students are positioned to be successful and productive employees and citizens. Over the 2016–2017 academic year, 420 bachelor's degrees were awarded (Figure 4-Q), down slightly from the historic high of the previous year, but still more than double the number of degrees awarded in 2007.

Work to improve graduation rates began even before the 2006 strategic planning efforts established goals to improve the campus's four-, five-, and six-year graduation rates to 40, 50, and 55 percent. The campus met the goal of 50 percent of those entering in fall 2008 graduating in five years. In summer 2015, new graduation rate goals were set: the four-year target graduation rate for students entering in fall 2016 and graduating in 2020 is 45 percent; the six-year target graduation rate for this class is 60 percent. Recent trends indicate graduation rates are up significantly from the entering classes of 2003–2009. The first-year retention rate is higher than it was ten years

Figure 4-Q. Undergraduate degrees awarded, Crookston campus, 2007–2017
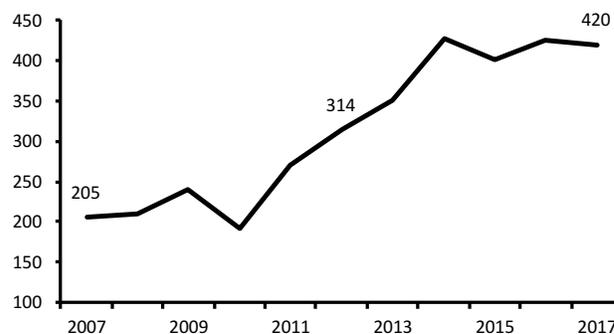

Source: Office of Institutional Research, University of Minnesota

ago (Figure 4-R), while the four-year graduation rate of the entering class of 2012 nearly doubled that of the entering class of 2003 (Figure 4-S). Table 4-9 shows how the Crookston campus compares with\ its peer group institutions, using rates for the class matriculating in 2009, the most current data available. The most recent trends in rates suggest that the campus will rank better in subsequent years, when data for those classes become available for comparison.

There is a national and state interest in meeting workforce needs in science, technology, engineering, and math (STEM). In fall 2017, 58 percent of Crookston's on-campus and 26 percent of online students were enrolled in STEM-related majors, such as agriculture, natural resources, environmental sciences, software engineering, information technology, and biological and health sciences.

Crookston's Strategic Enrollment Management Committee, created in 2013, continues to guide campus efforts to achieve and maintain a critical mass of students on campus while also growing strategically online. As part of this initiative, all Crookston units are implementing plans and strategies to contribute to recruitment and retention efforts.

Figure 4-R. First-year retention rates of first-time, full-time undergraduate students, Crookston campus, classes matriculating in 2006–2016
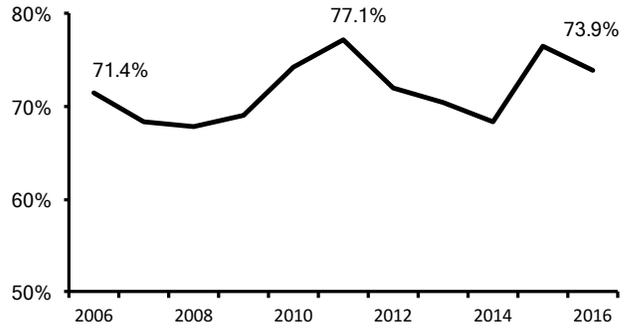
Source: Office of Institutional Research, University of Minnesota

Figure 4-S. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Crookston campus, classes matriculating in 2003–2013
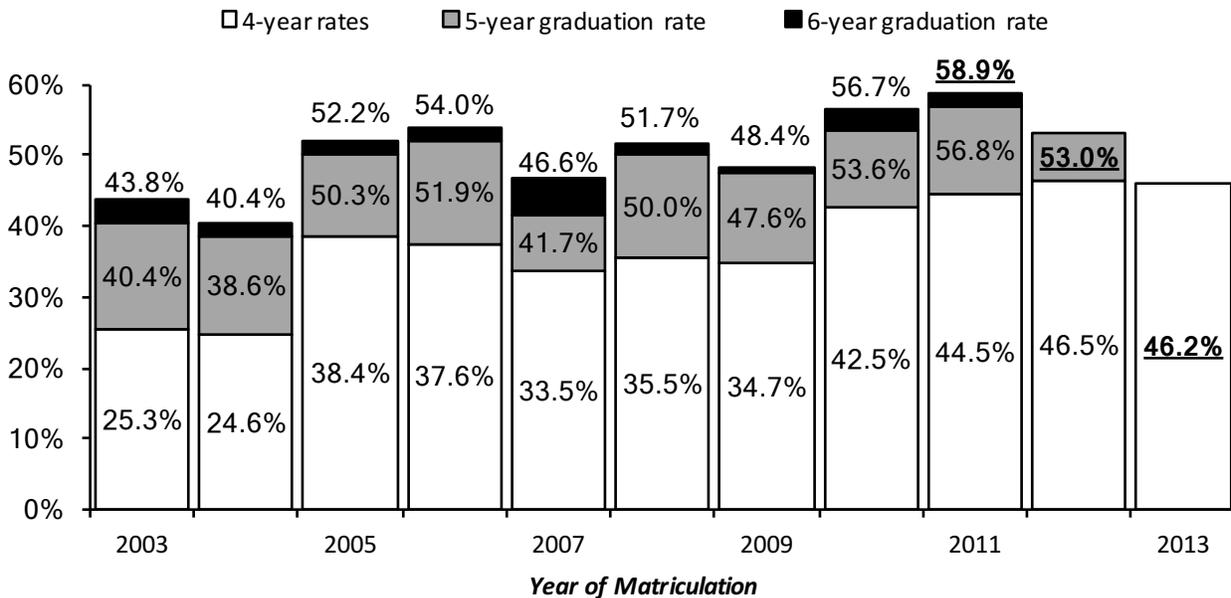
*Rates include graduates who transferred to another University of Minnesota campus. Graduation rates displayed in Table 4-9 are those reported to the national database (IPEDS), which counts only students who matriculated at and graduated from the same campus. As a result, the rates presented in the figure above differ slightly than those displayed in Table 4-9.

Source: Office of Institutional Research, University of Minnesota

Table 4-9. Six-year graduation rates (class matriculating in 2009), Crookston campus and comparison group institutions

	6-year Graduation Rate	Institutional Rank
U. of Wisconsin–River Falls	57%	1
U. of Pittsburgh–Johnstown	55%	2
U. of Wisconsin–Platteville	54%	3
Northern State U.	48%	4
Northwest Missouri State U.	47%	5
U. of Tennessee–Martin	46%	6
U. of Minnesota–Crookston	**45%**	**7**
SUNY Col. of A&T at Cobleskill	41%	8
Lake Superior State U.	40%	9
Southwest Minnesota State U.	39%	10
Indiana U.–Kokomo	29%	11
Northwestern Oklahoma State U.	20%	12
Comparison Group Average	43%	-

See footnote on Figure 4-S
Source: Integrated Postsecondary Education Data System (IPEDS)

ROCHESTER CAMPUS

The University of Minnesota Rochester is distinctive in its approach to undergraduate education. With a health sciences focus, students explore the wide array of healthcare career pathways while completing an innovative, integrated common core in their first two years. This interdisciplinary, health-relevant coursework includes mathematics, physics, chemistry, biology, Spanish, literature, philosophy, writing, and history. Students progress through this integrated coursework toward defined learning and development outcomes, engaging in the high-impact practices identified by the American Association of Colleges and Universities (learning communities, first-year experiences, common intellectual experiences, writing-intensive courses, collaborative assignments and projects, undergraduate research, global learning, community-based learning, internships, and capstone courses and projects).

Offering a Great Student Experience on the Rochester Campus

Extraordinary Core Curriculum and Research-Fueled Instruction

Pedagogical decisions are made through a collective process, based on teaching and learning research:

- Flipped classrooms are the norm.
- Rigor begins on day one. For example, first-year students start with Organic Chemistry in a unique model supported by UMR learning research.
- Relevance and efficiency are standard, as liberal education objectives are contextualized in the health sciences.
- Academic support is personal and available in the Just Ask center staffed by teaching and subject-matter specialists.
- Relationships are central. Student development support is personal and available with the unique Student Success coaching model.
- Collaborative teaching teams enhance student learning and development.

- Writing instruction is integrated into the curriculum and supported by writing specialists.
- Collaborative and active learning are routine.
- Community-based learning is valued and thus required.
- Grand challenges of 21st-century healthcare frame student learning and development in and out of the classroom.
- Intentionality and coordination in the design and assessment of the curriculum further enhance student learning as faculty commit to "our curriculum" rather than "my course."

Extraordinary Customization and Efficiency

As students emerge from their foundational learning and development having participated in intentional career pathway exploration, a customized learning experience occurs in their junior and senior years. All students engage deeply in community-based learning, after which they determine, propose, enact, and present an individualized, self-directed, capstone experience tailored to their emerging interests. Nearly half of Bachelor of Science in Health Sciences (BSHS) students study away during their senior-year capstones; many others serve as research lab assistants and scribes at the Mayo Clinic. For BSHS students, these customized capstones have created career pathways and admittance into programs of future study in biomedical engineering, law, medicine, occupational therapy, public health, physical therapy, dentistry, pharmacy, healthcare administration, research, and more. Though most complete a Bachelor of Science in Health Sciences, other students apply for and complete the Bachelor of Science in Health Professions (BSHP) in sonography, echocardiography, radiography, or respiratory care.

Extraordinary Expectations for Success and Evidence-Driven Decisions

Each student's distinctive undergraduate educational journey is guided by a success coach, with student learning and development outcomes assessed in both curricular and co-curricular endeavors. Results of faculty research are informing revisions of student outcomes, an assessment plan, and the campus's approach to optimizing distinctive sets of high-impact practices.

Expanding Access to the Rochester Campus

A grand challenge for the healthcare industry is diversifying the workforce. According to a U.S. Department of Health and Human Services report, one of the most compelling reasons is that a "more diverse health professions workforce … will lead to improvements in public health" (2006).

Supporting diversity in the professional healthcare workforce ranks, including the professions of physician, dentist, pharmacist, researcher, and others, requires first providing access and success at the undergraduate level. The Rochester campus is accessible to a wider range of students and their success is supported through personalized academic programming, life coaching, and a rigorous curriculum.

The campus recruits, values, and remains accessible to students with interest and passion in the health sciences, including:

- in-state and out-of-state students
- low- and middle-income students
- students of color
- first-generation students
- international students
- transfer students

As depicted in Figure 4-T, the Rochester campus has made progress on its goal of increasing the percentage of undergraduate students of color to equal or exceed the percentage of people of color in the general population of Minnesota.

The Rochester campus is uniquely positioned to support students and prepare them for their professional futures. Students of color on the Rochester campus succeed at the same or greater rates than their peers. This evidence reveals the effectiveness of the campus's approach to undergraduate education, with established research-based, high-impact practices enhancing student success. In addition, the campus has launched Health CORE (Community of Respect and Empowerment), a living-learning community of 40 competitively selected, underrepresented students.

Figure 4-T. Percent undergraduate students of color by fall term, Rochester campus, 2009–2017
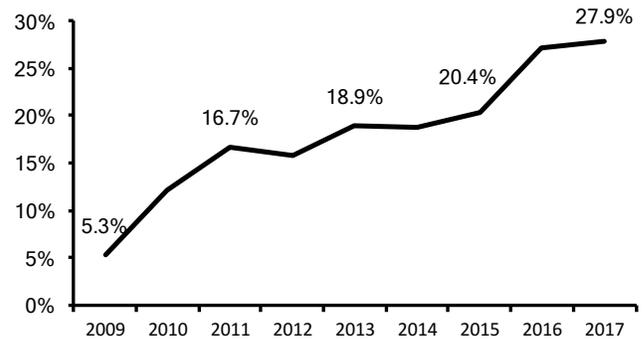
Source: Office of Institutional Research, University of Minnesota

This residential life and civic engagement program builds on the Rochester campus's strengths in undergraduate health sciences education, including its learning cohort model for years one and two. The mission of Health CORE is to enhance diversity and inclusivity in the student experience through intentional community development and support. The vision of the CORE is to support the success of underrepresented, undergraduate students who will infuse the healthcare field with their distinct perspectives, a development necessary to solve the grand healthcare challenges.

Given the success of Health CORE and student interest, the Rochester campus has established three additional living-learning communities (LLCs). The Global Connections program aims to support the success of international and domestic Rochester students who model intercultural competence, global citizenship, and commitment to solving global health challenges within the healthcare field. The ROC! (Recovery on Campus) program is a collegiate recovery community, expected to model transformational living, civic engagement, wellness, and high-integrity leadership while addressing the stigma of addiction within the healthcare field. The Minnesota Legislature designated funds to support the launch of ROC! and the dissemination of information regarding collegiate recovery communities to other public universities in the state. The newest LLC, the health and wellness living-learning community, shares residential space with ROC! and leads campus endeavors to enhance student well-being.

All UMR students complete a series of development courses designed to support student success,

professional exploration, and other developmental outcomes. Students who transfer in the Health Sciences program work closely with the director of student success coaching and their assigned student success coach to make their transition efficient. Students who transfer into the Health Professions program connect directly and are supported through their academic program by a BSHP transfer coach to serve their specific needs. Retention rates (as shown in Figure 4-U) are one indication of this accessibility and academic support.

Figure 4-U. First-year retention rates of first-time, full-time undergraduate students, Rochester campus, classes matriculating in 2009–2016
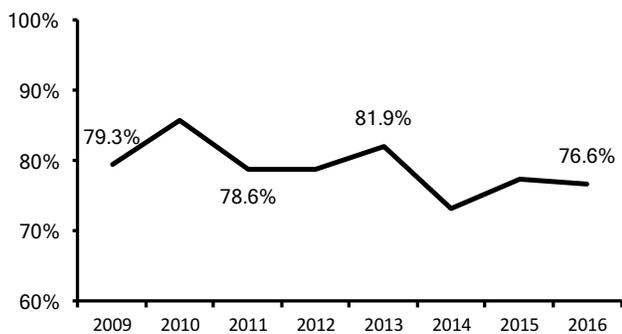
Source: Office of Institutional Research, University of Minnesota

During this past year, the Rochester campus has also focused on promoting an environment of health and wellness on campus. To support students, the campus has hired a licensed psychologist to provide student counseling, intervention, crisis response, training, and education around the issues of mental health.

Preparing Rochester Campus Graduates for Success

Five classes of students have now graduated from Rochester. Figure 4-V indicates the numbers of degrees awarded, with increases expected moving forward. Of the students who have graduated in the first four classes, nearly all have "finished in four," a commitment central to the Rochester approach to undergraduate education (see Figure 4-W). **(Progress Card Measure)**

Bachelor of Science in Health Sciences graduates are moving into a range of positions, including but not limited to:

- Biomedical Engineering
- Dental, Medical, Pharmacy, or Veterinary School
- Health Care Administration
- Health Care Policy
- Health Care Research
- Health Care Technology
- Law School
- Medical Lab Science
- Medical Scribe
- Naturopathic Medicine
- Occupational Therapy
- Physical Therapy School
- Physician Assistant School
- Public Health Education
- Sports Medicine
- Varied Ph.D. Programs

To date, 100 percent of Bachelor of Science in Health Professions graduates have passed their exams and are employed in the fields of echocardiography, radiography, respiratory care, and sonography.

Of the 2017 graduating class, over 90 percent graduated in four years or less, with 100 percent of BSHS students completing a faculty-supervised capstone experience. Of those graduates, self-reported data prior to commencement indicated that approximately 75 percent would be employed in a health-related context, with 33 percent intending to work for a year before continuing their

Figure 4-V. Undergraduate degrees awarded, Rochester campus, 2013–2017
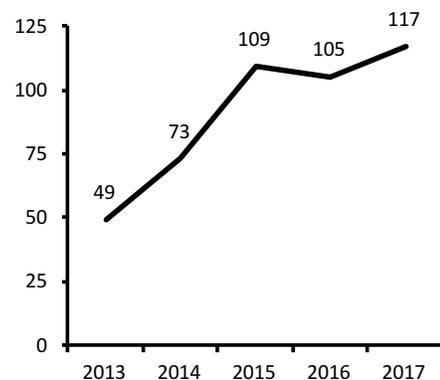
Source: Office of Institutional Research, University of Minnesota

Figure 4-W. Four- and five-year graduation rates of first-time, full-time undergraduate students, Rochester campus, classes matriculating in 2009–2013

Legend:
- □ 4-year rates
- ▨ 5-year graduation rate
- ■ 6-year graduation rate

Bar values:
- 2009: 60.0% (top), 60.0%, 50.0%
- 2010: 62.0% (top), 59.8%, 51.1%
- 2011: **69.4%** (top), 65.8%, 63.1%
- 2012: **65.7%**, 56.4%
- 2013: **60.0%**

X-axis: *Year of Matriculation*
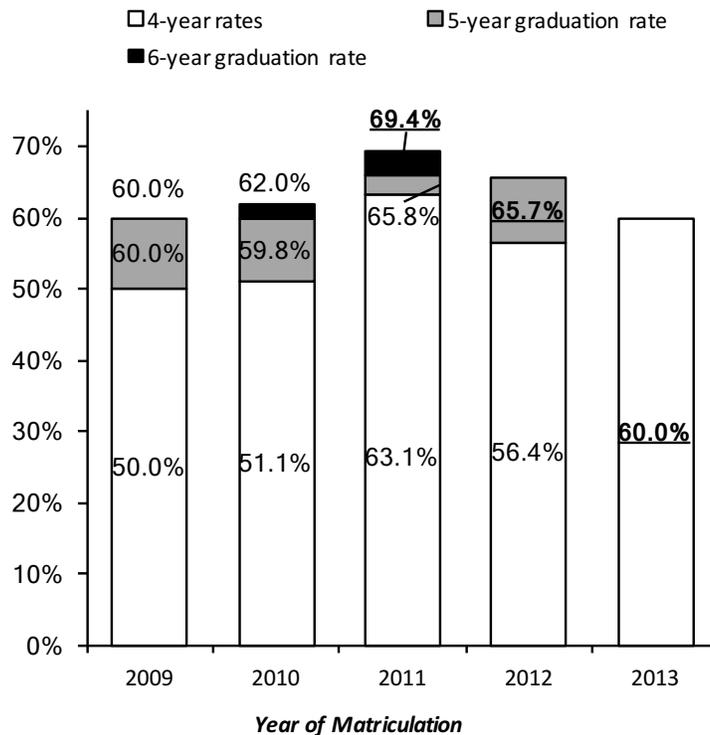
*Rates include graduates who transferred to another University of Minnesota campus.
Source: Office of Institutional Research, University of Minnesota

education. Approximately 19 percent had been admitted into graduate school prior to graduation. Overall, graduates' self-reported data at the time of commencement indicate that the majority (52 percent) of 2017 graduates expect to attend a health sciences–related graduate or professional school.

Extraordinary Future UMR 2.0

In the first ten years, the Rochester campus has established a nationally distinctive undergraduate health sciences program. The campus will now work to sustain innovation, agility, efficiency, and excellence to address the ever-evolving needs in higher education and health care. As stated in UMR's Strategic Plan Framework, the campus will inspire transformation in higher education through innovations that empower graduates to solve the grand health challenges of the 21st century. For example:

- to further serve the citizens of Minnesota and the demands of the healthcare industry in the region, the campus will continue growth in student

enrollment while sustaining an innovative, high-impact approach to education;

- to further serve student learning and development, the campus will explore additional avenues for partnerships to enhance community-based learning and customized capstones;

- to further the individualized care of students, the Rochester campus will document, assess, enhance, and share its Student Success Coach model;

- to further the benefit of learning communities, the Rochester campus will assess the efficacy of its four living-learning communities;

- to further students' academic achievement while addressing the challenges of higher education, the Rochester campus will document, assess, enhance, and share its pedagogical innovation; and

- to share the Rochester campus story nationally and continue to grow in influence, the campus will invite dialogue with other higher education innovators through a June 2018 Higher Education Innovation Summit.

Graduate Education

Graduate education is at the core of a research university and developing and maintaining excellent programs is therefore a priority for the University. Training and graduating young scholars who are prepared to be leaders is the mark of a great research university—and preparing future leaders is crucial not only for academia, but also for industry, government, and the private sector. In addition, outstanding graduate students facilitate scholarly productivity by our faculty and provide excellent undergraduate education through their teaching and mentoring activities.

To assist colleges in developing and maintaining excellent graduate programs, the Graduate School has identified as its highest priority increasing the diversity of students receiving graduate degrees. Diversity in all forms leads to the evolution of scholarship and knowledge. A diverse student body contributes to a rich graduate education experience—one in which students with vastly different backgrounds and experiences come together to learn, conduct research, and create new knowledge.

Maintaining Access

The University is committed to maintaining access to its graduate degree programs for members of the military, students of color, first-generation students, and others with diverse backgrounds and experiences.

Application Fee Waivers

To encourage applications from members of the military, the Graduate Admissions Office offers application fee waivers for active-duty members of the military and veterans. During 2016–2017, 161 applicants benefited from this application fee waiver.

In addition, McNair Scholars—applicants who are either first-generation college students with financial need, or members of a group traditionally underrepresented in graduate education who have demonstrated strong academic potential—receive application fee waivers. Sixty-three McNair Scholars benefited from this fee waiver during 2016–2017.

Attracting Students

Recruiting and Retaining Outstanding Students from Diverse Populations

The number of students who self-identified as students of color (American Indian, Asian, Black, Hawaiian, or Hispanic) has grown from 1,584, or 11.3 percent, in 2012 to 1,823, or 14.3 percent, in 2017. Completion rates by ethnicity are detailed in Table 4-10.

In addition to supporting college-level activities to promote the recruitment and retention of a high-quality, diverse student body, the Graduate School supports a number of systemwide events and initiatives that enhance collegiate diversity efforts:

- The DOVE Fellowship Program assists graduate programs with recruitment and support of academically excellent students with diverse ethnic, racial, economic, and educational backgrounds and experiences. Unfortunately, the number of qualified applicants far exceeds the number of fellowships available: during 2016, 144 students were nominated for 30 fellowship awards.

- In April 2017, more than 120 graduate students, faculty, and staff explored issues of equity and diversity in graduate education at the Graduate and Professional Education Assembly, which focused on creating inclusive scholarly communities and featured keynote speaker Estela Mara Bensimon, professor and director of the Center for Urban Education at the Rossier School of Education, University of Southern California.

Table 4-10. Six- and eight-year doctoral (Ph.D., Ed.D., D.M.A.) completion rates by ethnicity, University of Minnesota 2003–2011

	2003–04		2004–05		2005–06		2006-07		2007-08		2008-09		2009-10*	2010-11*
	6-yr	8-yr	6-yr	8-yr	6-yr	8-yr	6-yr	8-yr	6-yr	8-yr	6-yr	8-yr	6-yr	6-yr
Am. Indian	14%	57%	33%	42%	33%	56%	30%	50%	75%	88%	20%	40%	42%	0%
Asian	42%	65%	45%	62%	36%	56%	57%	71%	44%	56%	40%	64%	42%	57%
Black	29%	54%	39%	55%	29%	50%	25%	43%	19%	44%	29%	33%	45%	41%
Hawaiian			100%	100%					100%	100%				67%
Hispanic	26%	57%	23%	38%	25%	50%	47%	63%	24%	56%	31%	52%	33%	50%
Minority	34%	60%	39%	54%	32%	54%	44%	60%	36%	56%	34%	53%	41%	48%
White	35%	54%	38%	54%	38%	56%	43%	60%	42%	58%	44%	63%	46%	48%
Not specified	24%	46%	32%	48%	42%	58%	75%	83%	52%	83%	44%	53%	48%	52%
International	55%	70%	51%	67%	53%	72%	56%	68%	56%	69%	57%	74%	54%	56%
All Students	41%	59%	42%	58%	42%	61%	48%	63%	47%	62%	48%	65%	48%	51%

*8-year completion data not yet available
Source: Graduate School, University of Minnesota

- Regional McNair Scholars from surrounding institutions are invited to a Graduate School Visitation Program on the Twin Cities campus each summer. These students are either first-generation college students with financial need, or members of a group that is traditionally underrepresented in graduate education and have demonstrated strong academic potential. The day consists of a presentation about the process of applying for admission to graduate programs, meetings with faculty and staff to discuss their research, and a tour of the campus. During 2016–2017, more than 200 students participated.

Funding Support

Competitive financial support is critical for the recruitment and retention of high-quality students and contributes to a great student experience. Programs and colleges are responsible for allocating resources to provide funding offers to attract and matriculate prospective students. Financial support may come in the form of teaching and research assistantships, fellowships, traineeships, or tuition waivers.

The total amount of funding for graduate assistants, fellows, and trainees during fiscal year 2017 was $180,543,823, a 4.3 percent increase over the previous year and an increase of 12.6 percent over five years (see Table 4-11). Included in this total are several University-wide competitions that reward exceptional students, such as the Thesis Research Travel Grant, Interdisciplinary Doctoral Fellowship, Training Grant Matching Funds, and the Doctoral Dissertation Fellowship (DDF). This type of financial support enables students to focus more time and effort toward

Table 4-11. Total funding for graduate assistants, fellows, and trainees based on expenditures, fiscal years 2012–2017

	FY12	FY13	FY14	FY15	FY16	FY17	5-year change
O&M	$77,661,581	$77,640,828	$78,387,582	$83,807,619	$85,717,270	$90,191,713	+16.1%
Sponsored	$59,606,642	$57,445,165	$56,448,220	$57,063,613	$60,004,779	$62,755,976	+5.3%
Other	$23,099,737	$26,176,348	$25,838,896	$25,554,690	$27,402,672	$27,596,134	+19.5%
Total	$160,367,960	$161,262,341	$160,674,699	$166,425,921	$173,124,721	$180,543,823	+12.6%

Source: Graduate School, University of Minnesota

research and also encourages more timely degree completion. For example, the average time-to-degree for students who were awarded the DDF between 2007–2017 was 5.5 years, versus 5.9 years for students who were not awarded the DDF.

Increasing the number of external fellowships awarded to graduate students is a priority. Such fellowships are important: to students for providing them with resources and recognition; to graduate programs for providing a level of budget relief and evidence of quality; and to the University for providing an objective external measure of the quality of graduate students and programs. To help graduate students be competitive in securing external fellowships, the Graduate School offers workshops to help graduate students. In the past year, a record 37 new graduate students were awarded National Science Foundation Fellowships. Two graduate students received CIC/Smithsonian Fellowships and, during 2016–2017, the University was named a "Top Fulbright Producing University" (see Table 4-12).

External fellowships often do not cover the full cost of graduate tuition and health care, causing some students to turn down fellowship offers, preferring to take a less prestigious teaching assistantship that covers full costs. To prevent students from having to make such a choice, the Bridging Funds program was expanded to provide coverage for any funding shortfall associated with competitively awarded external fellowships. During 2016–2017, Bridging Funds were awarded to 132 graduate students.

Offering a Great Student Experience

As the state's designated research institution, the University has the responsibility to provide graduate students with a great experience and an extraordinary education so that they can conduct breakthrough research, generate new knowledge, drive growth in the economy, and become the next generation of leaders.

Graduate and Professional Student Welcome and Orientation

The University organizes annual activities for new graduate and professional students. This includes a new-student orientation session, offered to all graduate

Table 4-12. Number of External Fellowships and Number Supported by Bridging Funds, 2008–2018

	NSF Fellows	Fulbright Scholars	External Fellowships Supported by Bridging Funds
2008–09	28	8	N/A
2009–10	33	5	N/A
2010–11	49	9	N/A
2011–12	68	4	N/A
2012–13	86	6	N/A
2013–14	94	3	33
2014–15	106	5	10
2015–16	110	6	17
2016–17	118	4	29
2017–18	120	5	29*

*As of 11/1/2017
Source: Graduate School, University of Minnesota

and professional students on the Twin Cities and Duluth campuses. Although many programs provide local orientation for their students, the campus-wide event covers navigating the University and such topics as library resources, wellness and self-care, working well with an academic advisor, and creating a multi-year academic and professional strategy.

More than 860 students representing 16 colleges registered for the 2017 event. The Graduate School also hosts a resource fair to introduce new students to a wide range of University resources and services units to help them succeed, including One Stop Student Services, Boynton Health, and the Office of Student Finance. Over 500 students registered for the 2017 fair, which featured nearly 60 exhibitors.

Two one-day intensive writing workshops for new international graduate students were also added this year. More than 100 students gained a better understanding of and practiced the expectations for graduate writing, and learned about writing resources in their fields and on campus.

In response to the increasing demand for a central graduate student orientation, online resources are being expanded and orientation activities focused on the system campuses will be coordinated in 2018 to better serve all new students.

Advising

The relationship with one's faculty advisor is critically important to the well-being and the success of every graduate student. During 2016–2017, leaders from the Student Conflict Resolution Center (SCRC) developed new materials to support faculty in their role as advisors. SCRC staff met with twelve different groups of departmental faculty and students, the associate deans for research and graduate education, the Faculty Consultative Committee, and the Faculty Affairs Committee to share two resources: "Building Civility" and "Best Advising Practices for Graduate Student Success."

In addition, SCRC staff worked with over 100 graduate students on matters of academic progress and other concerns. SCRC readministered the survey "Academic Incivility and the Graduate Student Experience" in November 2017.

Graduate Student Diversity Office

During fall 2016, the Office for Diversity in Graduate Education moved from the Office for Equity and Diversity back to the Graduate School and is now known as the Graduate School Diversity Office. Following an external review and consultations with students and faculty, it was determined that the realignment of the Diversity Office with the Graduate School allows for a more seamless graduate student experience—from recruitment to retention to graduation—for students who are underrepresented in academia.

In 2017, the Graduate School hired an associate dean for graduate education to lead its diversity efforts. The associate dean position is supported in the Graduate School by a dedicated and experienced team, to which a new position, program coordinator of the Community of Scholars Program Writing Initiative, was added in 2017.

Community of Scholars Program

The Community of Scholars Program (COSP) works toward creating an environment that supports the academic and professional success of graduate students who are underrepresented in academia.

In summer 2017, an internship program was established with Hennepin County to expose COSP students to work environments in the government sector while gaining research and administrative skills. The three students selected for this initiative worked on specific projects for 40 hours a week, participated in weekly professional development seminars, and conducted a presentation summarizing their work.

The DOVE Summer Institute, a seven-week COSP program that takes place before the academic year begins, helps create a welcoming and inclusive climate for entering graduate students of color and students from underrepresented backgrounds. During the summer, these students work with a faculty mentor to build networks of support across the University, develop a research topic, and attend weekly seminars on communicating with faculty and proposal writing. A Bush Foundation study concluded that institute attendees make progress toward a degree at a rate that puts them essentially a year ahead of their peers. During 2017, a record 34 graduate students took part in the institute, the greatest number since its inception in 1998.

Support for Graduate Staff and Faculty

In 2017, the Graduate School created an annual report for each college with institution-wide information about the state of graduate education at the University, as well as college and program-specific data on application, admission, matriculation, enrollment, time-to-degree, completion rates, and demographic information.

The University recognizes a need for more comprehensive tracking of student careers and job placement outcomes in order to evaluate how well graduate programs are preparing students for their chosen career paths. To accomplish this, the Graduate School will be participating in the Council of Graduate Schools' "Understanding PhD Career Pathways" project, beginning fall 2017. This multi-year project will involve surveying Ph.D. alumni and current Ph.D. students to allow analysis of career aspirations, preferences, and outcomes at the program level. It will also provide comparable data from the other participating institutions. The goal is to help faculty understand the career paths their students are following so that curriculum, career services, professional development opportunities, and advising

might be strengthened to better meet the needs of students pursuing diverse career paths.

Support for Postdoctoral Researchers

Due to their non-student status, postdocs are not served by collegiate Career Services Offices, and there is significant unmet need for postdoc professional development opportunities. Current support includes making relevant graduate student workshops, trainings, and other opportunities available to postdocs. While some workshops target postdocs, staffing constraints limit the ability to do this on a regular basis. The University is exploring the feasibility of creating an Office of Postdoctoral Affairs to better serve and advocate for postdocs.

Preparing Graduates for Success

Approximately half of today's doctorate recipients find initial employment in non-academic jobs in industry, government, and nonprofit organizations. To succeed in the changing labor market, graduate students must leave the University with the right set of skills and an awareness of the full range of career options available to them, whether inside or outside of the academy. The University offers opportunities and resources for graduate students to explore, to engage, and to extend themselves beyond their disciplines as they prepare for the future.

Academic and Professional Development

Career development support for graduate students varies widely by college and program. The Graduate School directs some staff time to collaborating with staff and faculty across the system on programming and services in response to those identified needs. Throughout the year, the Graduate School partners with units such as the Center for Educational Innovation, the Minnesota English Language Program, University Libraries, and the Boreas Leadership Program to offer workshops on various academic and professional development topics. The Graduate School's APD Update, a biweekly email with information about academic and professional development opportunities across campus, has been an effective tool for increasing student, staff, and faculty awareness of the opportunities available, and this has led to more efficient use of limited resources.

Students also have access through the University's institutional subscription to premium content on several online career development sites, including the National Center for Faculty Development and Diversity, Versatile PhD, and Imagine PhD. Students use these resources to explore career goals, develop personalized career plans, and access advice and tools to increase their career preparation and success.

In response to student demand, the Graduate School will be working over the next year to increase awareness of professional development webinars, career chats, and other online forums for students seeking to access these resources online rather than in person. The University will also work over the next year to identify the gaps in online resources and develop additional content to meet the specific needs of students.

The University also helps students learn to communicate effectively to differing types of audiences through the Doctoral Research Showcase, which provides a casual and conversational environment for recipients of the Interdisciplinary Doctoral Fellowship and the Doctoral Dissertation Fellowship to present their research to faculty, staff, students, and friends of the University. More than 80 fellows participated in the 2017 showcase, which was attended by over 500 members of the University community. The GRADTalks seminar series— short, engaging presentations of student research to the broader community—has been established on the Duluth campus. Finally, monthly Doctoral Dissertation Seminars provide opportunities for Doctoral Dissertation Fellows to present and discuss their research before their peers.

Publicly Engaged Graduate Education

Community-based experiential opportunities involving graduate students are a key strategy for incorporating public engagement with academics. Programs and initiatives are designed to connect graduate students with social issues to enhance students' academic, professional, personal, social, career, and civic development.

Graduate-level, community-based research and scholarship opportunities such as thesis and capstone projects, internships, and clinical practica are routinely found in many programs. This past year, the

University offered an array of programs to expand graduate students' community-based experiences.

For example, the Resilient Communities Project (RCP) connected communities in Minnesota with the expertise of faculty and graduate students to address pressing local issues in ways that advance sustainability and resilience. During the 2016–2017 academic year, the RCP partnered with the City of Brooklyn Park on 24 projects focused on a range of issues, including diversifying the police department, improving workforce development training, evaluating community engagement initiatives, improving pedestrian safety, and creating a natural resources management plan. Projects were matched with students in 45 courses spanning 21 academic departments and on the Twin Cities and Duluth campuses. During the yearlong partnership, more than 250 students took part in an RCP project through a credit-bearing course or individual project.

The University's Economic Development Fellows Consulting Program connected groups of graduate students with opportunities to develop area businesses. Past participants help manage the projects by building connections with new clients. Sponsored by the Office of University Economic Development with support from the Graduate School, the program continued to provide students with real work experience in diverse business environments, using University resources to make tangible impacts on local economies.

With assistance from the Center for Urban and Regional Affairs' Hennepin University Partnership, students in the Humphrey School of Public Affairs worked with Hennepin County to examine ways to increase the deconstruction rather than demolition of properties. The students conducted quantitative and qualitative analyses of current deconstruction policies and practices, finding that deconstruction is complex but has potential to be economically and environmentally viable for the county.

As a final example, the Minnesota LEND (Leadership Education in Neurodevelopmental and Related Disabilities) program named 27 fellows in 2016–2017 for their outstanding skills and commitment to improving the quality of life for children with neurodevelopmental disabilities and their families. The LEND Fellows include both graduate and postgraduate students and community members. The Minnesota LEND program is an interdisciplinary leadership training program spanning 16 disciplines across the University.

Interdisciplinary Research and Scholarship

Graduate students are increasingly drawn to large, complex questions that lie at the intersection of traditional disciplines. The University—with its land-grant mission, extraordinary disciplinary breadth, excellent faculty, and state-of-the art facilities—is well-situated to provide excellent interdisciplinary graduate education for the many students attracted to Minnesota by the opportunities the University offers for solving the world's grand challenges. Within the University, the Graduate School is uniquely positioned to foster, advocate for, and shepherd interdisciplinary innovations that benefit graduate students. The Graduate School, with a perspective that encompasses all research-based graduate education, plays a pivotal role in helping to ensure that strong interdisciplinary programs continue to thrive and that promising new interdisciplinary initiatives are introduced that will strengthen the University's competitive advantage.

The Graduate School sponsored an inaugural Seminar Series on Collaborative Leadership and Grand Challenges Research. Offered every other week during the 2016–2017 academic year, the initial seminars were designed to help graduate students prepare to tackle some of the world's most complex problems. Sessions were free, not for credit, and were discussion-oriented, led by some of the University's top faculty and staff. Learning focused on leadership in collaborative contexts, cultivating innovative thinking, and research design for large and discipline-spanning problems.

The Graduate School continues to offer the Interdisciplinary Doctoral Fellowship (IDF), which provides a unique opportunity for outstanding Ph.D. students who are engaged in interdisciplinary research to study with faculty at one of the University's interdisciplinary research centers or institutes during the fellowship year. The award includes a stipend of $25,000 for the academic year, tuition for up to 14 graduate credits each semester, and subsidized health insurance. Twenty-one graduate students received the IDF for the 2017–2018 academic year.

Professional Education

The University of Minnesota offers nearly 100 professional degrees as well as certificates and other experiences at the postbaccalaureate level. These programs often attract students whose primary objective upon completion is to acquire an applied professional or practice-based job outside the typical academic or research environment. These programs are often shaped by ethics or principles established by the respective industry or profession, guided by quality standards enforced by a professional association or accreditation body, or require professional licensure or passage of examination to practice.

Professional programs are offered on the Duluth, Rochester, and Twin Cities campuses in fields including education, design, business, science, engineering, public policy, and many more. Examples of professional degrees are the Master of Education (M.Ed.), Doctor of Education (Ed.D.), Doctor of Audiology (Au.D.), Master of Engineering (M.Eng.), Master of Health Informatics (M.H.I.), Master of Public Policy (M.P.P.), Master of Social Work (M.S.W.), Master of Tribal Administration and Governance (M.T.A.G.), Master of Urban and Regional Planning (M.U.R.P.), Master of Architecture (M.Arch.), Master of Landscape Architecture (M.L.A.), and Master of Accountancy (M.Acc.). In addition, the University of Minnesota Law School offers comprehensive legal education that prepares students to become skilled and ethical professionals. These graduates are leaders and innovators in the legal profession, the business and nonprofit communities, and every branch of government at both the state and national levels.

Health professions education is provided through the School of Dentistry, Medical School, School of Nursing, College of Pharmacy, School of Public Health, College of Veterinary Medicine, the Center for Allied Health Programs, and associated programs and centers on the Duluth, Rochester, and Twin Cities campuses. In collaboration with affiliated health systems, the University also trains over 1,200 pharmacy, medical, and dental primary care and specialty residents each year.

Recruiting and Retaining Outstanding Students from Diverse Populations

Recruiting, training, and graduating diverse students who will become teachers, policy makers, counselors, social workers, and other professionals to serve communities is a priority for the University, as well as a point of emphasis for many professional accreditation associations. As such, the University is committed to maintaining access to its professional degree programs for members of the military, students of color, first-generation students, and others with diverse backgrounds and experiences.

For the past two years, the University has piloted a Professional Education Diversity Fellowship, which provides $300,000 of support that parallels the DOVE (Diversity of Views and Experiences) fellowships for the recruitment of academically excellent graduate students with diverse ethnic, racial, economic, and educational backgrounds and experiences.

Since 2015, the admissions office that serves most professional programs has waived the application fee for all McNair Scholars. These are nationally recognized scholars who are either first-generation college students unable to afford postbaccalaureate

education or underrepresented students with a strong demonstrated academic record. This fee waiver is in addition to that for active military personnel or veterans that has been in place since 2013. Another example is the application fee grants that the Humphrey School of Public Affairs offers to Pickering Fellows, Truman Scholars, and other outstanding applicants with an interest in the fields of public/foreign affairs and public service leadership as well as those with demonstrated financial need.

The Master of Landscape Architecture in the College of Design has had success recruiting and retaining diverse students by leveraging national fellowships, such as the Ager Fellowship and the Clinton N. Hewitt Prize, as well as the department's Research Assistants in Practice program, in which students partner directly with nonprofit organizations, government agencies, or firms.

The Master of Social Work in the College of Education and Human Development has multiple strategies to recruit and attract students from diverse backgrounds, including specific outreach and informational meetings, the University's exchange with historically black colleges, scholarship funds that target specific populations, and leveraging federal Title IV-E funds for training stipends for students to work in the child welfare system. In addition, the School of Social Work partners with the Office on Economic and Community Development to offer significant financial support through the Community Health Initiative sponsored by Medica and matched by School of Social Work scholarships from the Rose Snyder Fund. The school also partners with other agencies and programs that specifically serve diverse populations, such as Kente Circle (a mental health clinic for African American clients), the Indian Child Welfare Act unit at Hennepin County (child welfare services for Native American clients), Wilder's Southeast Asian Program, World Relief (serving refugee and immigrant communities), and the Brian Coyle Center (serving Somali immigrants). These agencies provide training opportunities for students through supervised internships. Effectiveness of these efforts is evident through consistently high numbers of applicants from diverse communities, following through to admission, enrollment, and successful completion of the program. Consistently, about 25 to 30 percent of the M.S.W.

student body identifies as persons of color. Another significant minority, although this is not tracked officially, are students who identify as GLBTQ. The M.S.W. program has a significant diversity in age, with current students ranging in age from 22 to 57.

The Carlson School of Management supports the recruitment and retention of women through a strategic women's initiative that features productive engagement with the Forté Foundation, Women in Business (WIB), and the National Association of Women MBAs (NAWMBA), as well as a slate of activities throughout the year such as an annual Women's Leadership Conference, Women in Finance and Women in Entrepreneurship conferences. The school also has made a concerted effort to raise more fellowship support for women and supports M.B.A. students with a travel stipend program and on-site career services to support student participation in annual affinity conferences such as the National Black MBA Association, National Society of Hispanic MBAs, Asian MBA, and others. Each year the school hosts high-ability prospective M.B.A. students from diverse backgrounds. Veterans initiatives, such as philanthropic support for fellowships, remain strong and have been successful for the M.B.A. program. Camp Emerge is a full-time M.B.A. program launched in 2017 as a residential pipeline-building experience for 30 women and minority undergraduate students, the vast majority of whom were not previously considering careers in business.

The Humphrey School of Public Affairs has student affinity groups that provide professional development, advocacy, and social support opportunities for diverse students, including the Humphrey Students of Color Association and the Humphrey International Student Association (HISA). The Humphrey School is also home to the national office of the Public Policy and International Affairs program (PPIA), an organization that creates programs and strategies to engage and recruit students to the world of public affairs generally, and public affairs graduate programs more specifically. Through PPIA, the school recently hosted its first Public Service Weekend, where 23 undergraduate students from underrepresented backgrounds from around the state spent a weekend at the Humphrey School looking for ways to turn their passion for public service into something more

concrete. The weekend offered an opportunity for students to learn about and engage in pressing public policy issues and challenges, and it gave them a glimpse of what it might be like to attend a graduate program in public policy and to enter a public policy career. Also through PPIA, Humphrey launched its first Junior Summer Institute this past summer, a rigorous seven-week program that prepares undergraduate students to thrive in graduate programs and launch careers in public service. Eighteen students from underrepresented backgrounds and hailing from undergraduate institutions around the country completed the program.

The Humphrey School is actively partnering across the University system, with a focus this year on the Morris campus. Humphrey faculty, staff, and leadership have visited Morris several times this year to develop partnerships for recruiting and retaining students from diverse backgrounds, pipelines for students from undergraduate programs to graduate school, and other initiatives.

Health Professions Education

Professional programs within the Academic Health Center (AHC) have made commitments to recruiting and retaining diverse groups of students (Table 4-13). AHC schools work to attract and enroll students from diverse backgrounds by offering scholarships, financial planning, and counseling services to help make education as accessible as possible.

Table 4-13. Racial and ethnic diversity of students enrolled in health professional programs, all campuses, 2013–2017

	2013	2014	2015	2016	2017
American Indian	1.4%	1.3%	1.7%	2.4%	1.5%
Asian/Pacific/Hawaiian	8%	8.4%	9.2%	8.9%	10.7%
Black/African American	3.7%	3.9%	4.1%	4.3%	5%
Hispanic	1.7%	2.1%	2.5%	2.5%	2.9%
International	3.1%	2.8%	3.2%	3.3%	2.6%
White	70.8%	71.3%	70%	68.8%	68.9%
Unknown	11.3%	10.2%	9.3%	9.8%	8.4%

Source: Office of Institutional Research, University of Minnesota

To promote diversity within the College of Veterinary Medicine, the Veterinary Leadership through Early Admission for Diversity (VetLEAD) program offers a provisional early admission decision to high-ability students at partner institutions, waives the Graduate Record Examination (GRE) requirement for admission, and provides access to scholarship funds as well as opportunities for mentorship with veterinary faculty and advanced students.

The School of Nursing was one of twelve schools in 2016 to receive the Higher Education Excellence in Diversity Award, a national recognition for demonstrating an outstanding commitment to diversity and inclusion.

The School of Public Health recruitment and inclusivity strategy for underrepresented and international students includes dedicated staff support, participation in national college fairs located in regions with a high level of diverse student populations, partnership with campus offices that primarily support underrepresented students, and dedicated web-based and print marketing material. In addition, the school has implemented an International Student Round-Table series to better support the needs of international students.

In the Medical School, efforts continue to increase the diversity of incoming students with two pipeline programs. Minnesota Future Doctors provides critical coaching and support to its scholars as they develop competitive portfolios for their applications to medical school. Scholars meeting program expectations receive MCAT preparation courses and materials, American Medical College Application System application support, research opportunities, physician shadowing, connections to health-related experiences, and individualized advising to assist with successful admission into medical school. A new B.A./M.D. pipeline program is a partnership with the University's Office of Undergraduate Admissions and the College of Liberal Arts. Up to ten students from broadly diverse backgrounds participate as a cohort through a seven-year early-assurance program that leads to matriculation into the University's Medical School after the third year.

Legal Professions Education

The Law School continues to recruit a highly qualified, talented, and diverse student body. The most recent entering class of J.D. candidates had a median LSAT at the 87th percentile nationally and a median undergraduate GPA of 3.75. Approximately 15 percent of the students are of color, and nine percent are from other countries. For the first time in its history, the Law School's entering class was majority female. Students come from throughout Minnesota, from 29 other states, and from around the world. Many students recruited from outside the state remain in Minnesota and become leaders in law firms and businesses, as well as in state and municipal governments and community organizations. In addition, the Law School has an LL.M. class consisting of 50 talented lawyers from across the globe who have come to Minnesota for a one-year master's program designed to introduce them to the U.S. legal system. Highly successful members of the LL.M class are able to transfer into the J.D. program

The Law School has pursued multiple strategies to enhance recruitment. Students are more inclined to apply to highly ranked schools, and the Law School has maintained a top-25 *U.S. News and World Report* ranking. Admissions staff and faculty members are extensively involved in recruitment through attendance at information sessions and law fairs around the country, informal meetings with visiting applicants, and phone calls to admitted students. In addition, the Law School has expanded its efforts to recruit promising students through a combination of scholarships, fee waivers, admissions outreach, and the development of web and print promotional materials.

The Law School has also taken steps to improve diversity and inclusion. It participates in pipeline initiatives to expose promising potential students from diverse communities to legal education, including the annual JTB-APO Summer Legal Institute for high school students and the Minnesota Pre-Law Scholars Program for undergraduates, the latter of which is a comprehensive summer-long law school and LSAT preparation course targeted to underrepresented Minnesota residents. The Admissions Office and Faculty Diversity Committee are also experimenting with outreach programs to connect prospective

applicants with current law students and members of the local bar. Once students enroll, they have access to a range of courses taught from diverse perspectives, as well as extensive academic and bar preparation support. The Diversity Committee has driven efforts to expand programming support for affinity student organizations, with dedicated staff advising and funding to supplement student-driven practitioner panels, social events, and service projects. Starting in January 2016, the Law School launched an annual MLK Convocation program, featuring distinguished panelists (such as Associate Justice Emeritus Alan Page '78) addressing areas of legal inequity.

In recent years, applications to the Law School have followed nationwide trends and have declined substantially from their peak, although there are indicators (such as an increase in LSAT takers and number of students attending local, regional, and national events) for an increase in applications for fall 2018. Despite receiving fewer applications, the Law School has continued to recruit highly qualified and diverse classes. For fall 2017, the incoming class size by increased by 20 students over 2016 and had highly competitive LSAT and GPA scores. Growing the applicant pool is a priority, and the Law School is implementing several strategies to do so, such as partnering with an enrollment management consulting group, enhancing pipeline programming, partnering with alumni and bar associations, and increasing the number of prospective student information sessions held on campus. In addition to efforts to increase the J.D. class size, the Law School has also in recent years created and expanded other degree programs and reduced expenses.

The Law School has sharply increased scholarship support for its students. In keeping with trends among highly-ranked national law schools, more than 90 percent of the most recent entering J.D. class received grant aid. The percentage of students graduating with no Law School debt has been increasing since 2011–2012, to 28 percent in the most recent reporting period; in the same period the average amount of Law School debt for the remaining students has decreased to $92,190 (which is much lower than the national average). The Law School continues to make fundraising for student scholarships one of its highest priorities.

Providing Quality and Value in Professional Education

As the state's flagship higher education institution, the University has the obligation to produce well-trained professionals that meet the workforce demands of local communities and beyond. Professional education at the University is responsive to the changing labor market landscape, as demonstrated by the following examples.

- The College of Design's School of Architecture was ranked second by *DesignIntelligence* magazine as the most admired graduate architecture program by deans and chairs. The Interior Design program was selected by hiring professionals as one that best prepares students for a future in their professions.

- Professional education programs in the Carlson School of Management are designed with a high level of public engagement embedded in the curriculum. Components like the M.B.A. Enterprise Programs (Brand, Funds, Consulting, and Ventures) and the M.S. LAB programs create unique and dynamic opportunities for students to engage in real-world challenges posed by clients. The M.B.A. and M.S. programs engaged in over 100 projects last year that included all full-time students and many working professional students who opt into electives. These courses are seen by many in the industry as best-in-class and difficult to replicate.

- Over the past several years, the Carlson School has transformed its delivery of curriculum to students. The part-time M.B.A. program's online and compressed-format courses have risen from five percent enrolled in 2012 to over 40 percent in 2017. As working professionals needed different pathways to successfully complete their degree requirements, the school has responded with enhanced choices while retaining high-quality delivery.

- The Master of Business Accountancy Program has initiated a winter tax and public accounting internship option into its curriculum to provide students without prior experience in these fields a "laboratory" in which to apply their newly learned skills. These are ten-week, full-time paid internships. Consequently, students can effectively fund 75 percent of the tuition cost of the degree with the ten-week winter internship.

- The Master of Human Rights program is an interdisciplinary collaboration between the College of Liberal Arts and the Humphrey School of Public Affairs that prepares students for positions addressing global human rights challenges through research, policy analysis, and advocacy.

- The Master of Tribal Administration and Governance degree on the Duluth campus, developed after two years of consultation with Indian tribes, meets the need for applied training to become tribal employees and executives, using best practices for running a tribal government. Graduates have an understanding of relevant federal laws, federal accounting requirements, and federal-tribal-state relations, as well as training in leadership, ethics, and tribal management skills.

- The College of Continuing and Professional Studies redesigned its postbaccalaureate Addiction Studies certificate program to be a Master of Professional Studies in Addictions Counseling degree that meets the Minnesota state requirements for the Alcohol and Drug Counselor licensure.

Similarly, the following examples demonstrate that health professional schools are developing new degree programs, implementing curricular innovations, and establishing new clinical practice models and programs in response to the emergence of new professions as healthcare transformation continues.

- In 2017, the University received funding for a new Health Sciences Education Center, which will replace 100,000 square feet of outdated facilities with the modern learning and training spaces needed to prepare students to meet the future health needs of Minnesota and beyond. This will include state-of-the-art simulation areas to complement existing facilities; active learning classrooms; and a technology-rich library with virtual reality simulators and data visualization spaces to engage in experiential learning. Construction on the building will begin in spring 2018, with occupancy expected in 2019.

- The program in occupational therapy has consistently reported pass rates of 98 to 100

percent for graduates taking the profession's national certification exam.

- The Medical Lab Science Program had a 100 percent first-time national certification exam pass rate and 100 percent employment in the field by six months after graduation in 2016.

- To expand the reach of health educational programs and offer flexibility for students, some health schools offer the ability for students to take their coursework online. For example, the program in occupational therapy, available to students on the Twin Cities and Rochester campuses, has the most online offerings of any hybrid-delivered occupational therapy program in the nation. Other institutions have leased the University's occupational therapy online courses for use within their curricula.

- The Medical School offers students the opportunity to participate in longitudinal experiences within one community or clinical site rather than switching locations every few weeks. This allows the student to engage more fully with teams of professionals in those locations. The focus of these clinical training experiences varies depending on the site but includes rural medicine, urban underserved, interprofessional team work, and quality improvement.

- The Academic Health Center has service-learning opportunities for students to learn clinical skills under the guidance of practicing health professionals while supporting the needs of underserved communities. The College of Veterinary Medicine operates the Veterinary Treatment Outreach for Urban Community Health, which provides basic medical care to the pets of underserved residents of the Twin Cities; and the Student Initiative for Reservation Veterinary Services, which provides free care on Native American reservations. The Phillips Neighborhood Clinic is a free, student-run clinic where each year 400 students from dental, healthcare administration, law, medical lab science, medicine, nursing, nutrition, pharmacy, physical therapy, and social work provide free health services to underserved patients in the Twin Cities.

- Students in health programs have opportunities to practice their skills to be ready for experiential

settings. Most students work in state-of-the-art simulation centers, learning clinical and interprofessional teamwork skills needed for future practice in collaborative environments, including:

◦ AHC Simulation Center and Interprofessional Education Resource Center (IERC) are used by learners of all levels across the health professions to practice key technical, clinical, and team skills with the help of standardized patients, high-fidelity mannequins, and human patient simulators. These centers will move to the new Health Sciences Education Center when it opens in 2019.

◦ Bentson Healthy Communities Innovation Center in the School of Nursing includes simulated environments that span the patient care continuum from hospital to outpatient to community-based care.

◦ SimPortal in the Medical School is equipped with the technology and tools needed to train medical trainees in cutting-edge care.

◦ Dental simulation in the School of Dentistry allows students to practice the highly technical skills needed for future practice.

◦ Veterinary students practice client communication at the IERC and learn with veterinary models in the CVM Zone, a pilot facility to support clinical skills development.

- The School of Public Health has a fundamental emphasis on health equity, the concept that health is a human right. The core curriculum for the master's of public health degree includes an emphasis on health equity and inclusion, with course evaluations specifically asking how health equity was addressed. The school has adopted a policy to focus on diversity as part of faculty competency, which includes pedagogical training and support through a partnership with the Center for Educational Innovation; and the school's Equity, Diversity and Inclusion Team has been asked to present on campus as a model for others to emulate. The staff of the Career and Professional Development Center has been recognized by the Career Diversity Network for efforts to promote equity and inclusion in all aspects of their work.

The Law School offers one of the most rigorous and comprehensive legal education programs in the country. Almost all J.D. candidates graduate in three years, except for those earning joint degrees in other University programs. The Law School is at the forefront of a small group of schools leading the transformation of legal education nationally and internationally. Recent changes to the curriculum are designed to integrate doctrine, theory, professional values, and lawyering skills to ensure that students graduate with the tools necessary to be effective advocates and counselors in both private practice and public service. Recently launched initiatives include:

- A new required Legislation/Regulation course introduces students to the tools of statutory interpretation, the operation of administrative agencies, and judicial review of agency decision-making.

- Early implementation of the American Bar Association's experiential learning requirement a year ahead of most law schools, including a required first-year experiential course, more than a dozen simulation-based courses that enroll hundreds of students in small sections that facilitate intensive training and feedback, and one of the largest live client clinics in the United States that offers more than 200 seats and opportunities for students to represent clients in approximately 400 matters each year.

- Two new concentrations (Immigration Law and Family Law), bringing the total number to eleven.

- The new Minnesota Law Public Interest Residency Program expands career opportunities by connecting leading public interest and government organizations with law students interested in public service. Students receive real-world experience as externs while earning credit and are guaranteed a full-time legal position with their host organization the year following graduation.

- New courses designed to ensure that the curriculum adapts to the changing legal landscape, including: Data Compliance Practicum, Intellectual Property and Entrepreneurship Clinic, and Military Law and Advocacy.

The University's professional education programs have strong reputations nationally and around the world, which allows graduates of these programs to engage in their chosen professions with a high level of credibility and public confidence. For example, the Humphrey School is ranked eighth among the country's 270 public affairs schools, according to national rankings released by *U.S. News & World Report* in March 2016. Humphrey's ranking is a significant rise from 16th when the survey was last conducted four years prior, and the school's nonprofit management program is rated second, up from third in the previous survey. The health professional schools have national prominence through a variety of rankings. For example, the Medical School is ranked 34th in National Institutes of Health funding (2016, Blue Ridge Institute for Medical Research) **(Progress Card Measure)**. *U.S. News and World Report* also ranks a number of health professions programs highly:

- The School of Nursing is ranked twelfth among nursing graduate schools and second in nursing informatics education.

- The College of Veterinary Medicine is ranked eighth.

- The College of Pharmacy is ranked second among all pharmacy schools in the nation.

- The latest rankings of medical school graduate programs put the University third in rural care, seventh in primary care, and 44th in research. The University's medical school produces more family physicians than any other school in the country.

- The physical therapy program ranked 20th of 233 health graduate programs nationally.

Preparing Graduates to Succeed and Serve the State

The University strives to prepare its professional education graduates to serve their professions and the public. In fact, the University is the state's primary source for many professional industries. For example, the University granted 1,214 health professional degrees (including undergraduate degrees), 269 legal-related degrees, 589 Master of Education degrees, and 493 M.B.A. degrees in 2016 (Table 4-14). The University seeks to ensure that these students obtain the experiences they need and graduate in a timely fashion. For example, graduation rates in the health professional programs are very high, with the five-year

Table 4-14. Fall 2017 enrollment and degrees awarded in select in-demand professional programs, 2016–2017

Program	Campus	Enrollment	Degrees Awarded
Dental Surgery (D.D.S.)	Twin Cities	459	107
Medicine (M.D.)	Duluth, Twin Cities	950	220
Physical Therapy (D.P.T.)	Twin Cities	151	47
Master of Nursing (M.N.)	Twin Cities	125	63
Doctor of Nursing Practice (D.N.P.)	Twin Cities	346	121
Pharmacy (Pharm.D.)	Duluth, Twin Cities	671	160
Public Health (M.P.H.)	Twin Cities	516	268
Healthcare Administration (M.H.A.)	Twin Cities	122	76
Occupational Therapy (M.O.T.)	Rochester, Twin Cities	95	54
Veterinary Medicine (D.V.M.)	Twin Cities	406	98
Law and Business Law (L.L.M.)	Twin Cities	52	61
Doctor of Law (J.D.)	Twin Cities	561	208
Master of Architecture (M.Arch.)	Twin Cities	87	34
Master of Education (M.Ed.)	Duluth, Twin Cities	982	589
Master of Social Work (M.S.W.)	Duluth, Twin Cities	324	162
Master of Business Administration (M.B.A.)	Duluth, Twin Cities	1163	493
Master of Science in Business Analytics	Duluth, Twin Cities	128	80
Master of Arts in Human Resources and Industrial Relations	Twin Cities	161	61
Master of Public Policy (M.P.P.)	Twin Cities	152	83
Master of Urban/Regional Planning (M.U.R.P.)	Twin Cities	76	35
Master of Public Affairs (M.P.A.)	Twin Cities	89	34

Source: Office of Institutional Research, University of Minnesota

graduation rates for 2012 matriculating classes across most of the health programs exceeding 90 percent (Figure 4-X).

The following highlights how selected professional programs prepare graduates to succeed while serving their respective professions and communities.

College of Design

Students in the Master of Landscape Architecture program serve as Research Assistants in Practice working directly with nonprofit organizations, government agencies, or firms, which sets the RAs in Practice apart from conventional research assistantships. Although the details of each assistantship differ in the type of work depending upon the agency, RAs in Practice can expect to conduct research on administrative frameworks, emerging policy, societal needs, and process trends; participate in interdisciplinary professional collaborations on multifunctional landscape efforts; and perform basic day-to-day project work in the support of the firm/agency.

College of Education and Human Development

The College of Education and Human Development (CEHD) engages with school partners to re-envision teacher education, with a focus on putting P–12

Figure 4-X. Five-year graduation rates of health education programs, students matriculating in 2012

99% — Doctor of Dental Surgery (D.D.S.)	
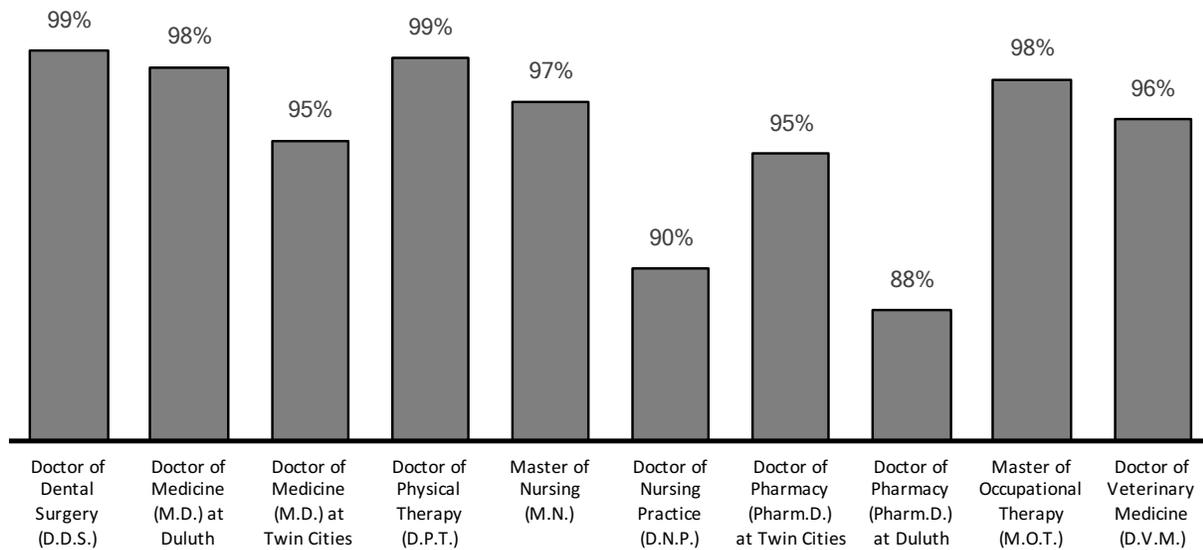
Source: Office of Institutional Research, University of Minnesota

students first. For example, in 2015 CEHD created a Multiple Pathways to Teaching initiative. This innovative unit houses staff committed to diversifying the teaching profession by creating new pathways to becoming a teacher, including a grow-your-own partnership called the Minneapolis Residency Program, a partnership with the Minneapolis Public Schools and the Minneapolis Federation of Teachers and Education Service Professionals.

The Minneapolis Residency Program is grounded in the idea that one of the most effective ways to prepare new teachers is to recruit them from the communities in which they reside, prepare them in partnership with districts, and ensure that they secure jobs in the district after being recommended for licensure. This recruitment strategy offers a pathway for non-licensed district staff who are committed to education and equity, and identifies candidates who possess numerous strengths including racial and linguistic diversity. Teacher candidates are full-time staff in the district and full-time graduate students who co-teach alongside a classroom teacher of record four days a week for the full academic year. Coursework is taken over two summers and one day per week during the academic year. The program is currently preparing the third cohort of teacher candidates and is exploring the possibility of expanding the partnership to include more district partners and more licensure areas.

The School of Social Work learns more about service needs in the metro area and in Greater Minnesota

through a monthly seminar titled "Conversations with the Community." Agency staff talk with students and faculty members about all aspects of the services offered in their agencies: the community in which they're located; the major issues that are encountered; the training that their staff requires; how the agency is funded; how to refer clients to their services; ways that the agency works collaboratively with other public and voluntary sector agencies; and employment opportunities for Master of Social Work (M.S.W.) social workers.

All M.S.W. students complete supervised training internships at various social service agencies under the direction of licensed M.S.W. social workers, supported by three major training programs: a Title IV-E Child Welfare Training grant, the Kaplan Training Fellowship for social work practice in traumatic brain injury, and an in-school Integrated Behavioral Health training fellowship. In these internships, students are assessed on their capacity to meet core social work practice competencies. Additionally, the School of Social Work offers a social work license review to help students understand the requirements for moving from student status to licensed social worker, thus helping to fill critical social work positions in the state.

The M.S.W. program also responds to workforce and community needs by recognizing the growing demand for social workers in health care, as well as the reality of an aging population. For example, the M.S.W. program has recently created a new

specialization in Health, Disability and Aging and has partnered with the Academic Health Center to give M.S.W. students the opportunity to participate in a twelve-hour course segment on Fundamentals of Interprofessional Collaboration and Communication. This provides M.S.W. students with skills to work with interprofessional healthcare teams, with other opportunities available for professionals in publicly mandated services, particularly child welfare.

Carlson School of Management

The Carlson School continues to prepare graduates to succeed while building enduring relations with businesses both large and small within the state of Minnesota. Carlson students tackle the state's grand challenges in areas such as food, health, education, and safety by combining the expertise of the Carlson School with that of the community. For example, the Minnesota Cup represents the largest statewide start-up competition in the country, resulting in awards of more than $2 million in seed funding and helping more than 13,000 Minnesota entrepreneurs in its decade-long existence.

The Master of Human Resources and Industrial Relations program features the Carlson International HR Case Competition, where student teams from around the world present solutions to a live business case in the area of international human resource management. The competition gives the students the opportunity to be exposed to some of the top Fortune 500 companies and meet student peers from schools around the world.

Other programs also conduct "live case" competitions that enrich the class experience and engage companies like Carlson Wagonlit, PwC, McKinsey, and Carlisle Industries. In the last year, students in the Master of Science in Business Analytics program completed 16 sophisticated analytics projects and M.B.A. Enterprises completed more than 50 projects. New programs have extended offerings into new disciplinary areas and provided connections with new corporate sponsors. The first cohorts of the Master of Finance (M.S.F.), Master of Supply Chain (M.S.S.C.), and Industry M.B.A. programs graduated in May 2017. The M.S.F. launched its project portfolio and M.S.S.C. students completed four projects. All told, more than 75 graduate projects were completed.

As one of the top graduate tax programs in the nation, the Carlson School Master of Business Taxation Program (M.B.T.) brings together world-class faculty boasting a wealth of industry experience and a thriving local business community to create a career-shaping experience for students. Evening and online courses offer the flexibility to suit students' schedules. Twenty-four of the top 25 CPA firms in the Twin Cities have M.B.T. graduates and students in the tax department and 22 of the top 25 public companies in the Twin Cities employ M.B.T. graduates and students in their corporate tax departments.

Other Carlson students see equal success upon graduation. Professionals in the Graduate Career Center work hard across all programs to match students and recruiters. For example, the full-time M.B.A. achieved 96 percent placement at 90 days with an all-time high starting average salary of $108,000. The full-time Master of Science in Business Analytics (M.S.B.A.) is at 98 percent placement with an average salary of $85,000.

Humphrey School of Public Affairs

Each year, Humphrey School students engage in semester-long capstone projects with approximately two dozen client organizations. In addition to providing valuable expertise and collaboration to public and nonprofit organizations, these capstones provide important practice-based experiences that ensure that students are prepared for their future careers. Humphrey also engages distinguished adjunct faculty who bring essential insights from practice, support students in building networks, and contextualize theoretical knowledge offered in other courses. An annual course offering, Developing Your Public Service Career, also builds students' capacity to move from the classroom to careers.

Humphrey maintains these relationships with the community of practice and identifies ongoing workforce needs in a number of ways. For example:

- The annual Government and Nonprofit Career Fair is notable in that it engages potential employers who can share their needs and interests with students, thereby highlighting new opportunities for work in public affairs, planning, environmental policy, and more.

- The Future Services Institute supports the Equity Works Leadership Institute and Certificate in Human Services Leadership, which build the capacity of the existing workforce.

- The Public and Nonprofit Leadership Center has a new partnership with the Bush Foundation and the Cultural Wellness Center that has established the Change Network Minnesota leadership program to to build leadership skills among a diverse cohort of emerging leaders grounded in cultural context.

- The Master of Urban and Regional Planning program maintains a strong relationship with the American Planning Association (APA) Minnesota chapter, the primary association representing practicing planners. Humphrey was awarded a national award in 2017 for engagement with the state chapter, with activities that include a mentor program, professional panels, student service on the APA Minnesota Board, and student engagement in the state conference.

- As a mid-career program, the Master of Public Affairs program meets workforce needs, supporting career advancement and movement into new opportunities to fill gaps across a wide range of public affairs issues and public/private/nonprofit organizations.

Health Professions Education

The health professional programs prepare graduates to serve the needs of the state including health access in rural communities, American Indian health, obesity, and opioid overuse. For example, the Academic Health Center provides financial assistance to students doing rotations in rural communities. This exposes students to the unique features of caring for rural communities, while helping these communities recruit future healthcare employees.

To address a shortage of food animal veterinarians, the Veterinary Food Animal Scholar Track (VetFAST) program accepts freshman and sophomore students enrolled in the Animal Science program from the College of Food, Agricultural and Natural Resource Sciences on the Twin Cities campus; Biology students from the Morris campus; and Animal Science students from the Crookston campus. Accepted students have a reserved seat in the class once program requirements are successfully completed.

The field of occupational therapy is projected to grow 27 percent from 2014 to 2024, much faster than the average for all occupations. Occupational therapy will continue to be an important part of treatment for people with various illnesses and disabilities, such as Alzheimer's disease, cerebral palsy, autism, or the loss of a limb. The University's program in Occupational Therapy is helping to address this growth with an innovative hybrid-online program that expands its educational programming to a broader community of students.

As the only dental school in the northern tier of states between Wisconsin and the Pacific Northwest, the School of Dentistry is a regional resource for five states and educates 73 percent of Minnesota's dentists. Furthermore, it started the first dental therapy program in the nation in 2009 and currently educates 68 percent of licensed dental therapists in Minnesota.

The School of Nursing is piloting a program to establish academic-practice partnerships in urban and rural underserved areas. In this innovative program, nurse practitioner students and faculty work with an interprofessional team in three mental health clinics to provide integrated, team-based care to persons who live with mental illness and complex medical conditions.

Through the 1Health initiative, students receive education and experience within their fields while also being prepared to serve in a healthcare environment being reorganized into collaborative teams. The 1Health initiative is integrating interprofessional education across University health professions schools and programs to meet the challenges of what is called the "quadruple aim": improving the patient experience of care, improving the health of populations, reducing the per capita cost of care, and improving the well-being of the providers of care.

Legal Professions Education

Law faculty and students are involved in numerous projects designed to serve the public. In many cases faculty and students work side by side, blending the Law School's education and outreach missions. Hundreds of law students receive academic credit for serving the public while developing professional skills. Examples include 24 legal clinics that allow students to work directly with members of the local

community, a judicial externship program that places students in the chambers of state and federal judges, and a field placement program that enables students to work with government offices and legal service providers.

The Robina Institute of Criminal Law and Criminal Justice is working with state and local governments on multiple aspects of criminal justice policy. The Institute is working directly with Massachusetts, New York City, two counties in Texas, and several urban and rural counties in Minnesota to study and improve the probation system; with the Pennsylvania Board of Probation and Parole to study and improve parole practices; and with Massachusetts and Nevada on sentencing guidelines systems. The institute's executive director recently served on the Minnesota Senate's Prison Population Control Task Force and is currently serving on a committee formed by the state legislature to consider whether Minnesota should enact an earned compliance program for probation.

The Institute on Metropolitan Opportunity investigates how laws, policies, and practices affect development patterns in U.S. metropolitan regions and provides resources that policymakers, planning officials, and community organizations need to address reform in taxation, land use, housing, metropolitan governance, and education. The institute's work has received extensive national media coverage, including by *The New York Times*, *National Public Radio*, *The Guardian*, *The PBS Newshour*, *The Washington Post*, *The Wall Street Journal*, *USA Today*, *U.S. News and World Report*, *Business Week*, *The National Journal*, *Crain's Chicago Business*, and dozens of local papers and radio stations throughout the country.

The Corporate Institute, which brings students and mentoring attorneys together to help women- and minority-owned businesses start up or grow, logs more than 8,000 service hours each academic year.

The James H. Binger Center for New Americans continues to engage law students and volunteer attorneys in high-impact public service, winning changes in U.S. immigration laws that have benefited thousands of people. In the last year, center faculty have supervised over 50 students in prominent cases that have expanded protection for refugees and freed

asylum seekers from unconstitutional detention. Last December, *The New Yorker* featured the center's successful litigation that brought national attention to the government's controversial policy of detaining traumatized refugees.

The Law School Public Service Program encourages students to provide free legal assistance to the local community. Last year, students devoted more than 12,000 hours of their time to numerous organizations, including the Minnesota Assistance Council for Veterans, Legal Services of Northwest Minnesota, and the Minnesota Disability Law Center.

Dozens of faculty members are involved in helping to shape state, federal, and international law through their scholarship, testimony, commentary, public service, membership on boards, and advising work with governmental and private organizations. For example:

- Prof. Robert Stein is one of Minnesota's commissioners on the Uniform Law Commission;

- Prof. Kevin Reitz is the American Law Institute's reporter for revisions to the Model Penal Code;

- Prof. Susan Wolf is a principle investigator for an NIH-funded program to establish a legal framework for regulating the human genome;

- Prof. William McGeveran testified before the Minnesota Senate Judiciary Committee on the PRINCE Act;

- Prof. June Carbone is involved in efforts to transform domestic and international practices regarding surrogate motherhood, including through testimony before the Minnesota Surrogacy Commission and participation in a project at the University of Hong Kong that is creating a foundation for a UK Law Reform Commission;

- Prof. Richard Painter—who was President George W. Bush's chief ethics lawyer in the White House—has been frequently featured in the national media as an expert on campaign finance reform, banking regulation, and the 2016 presidential election; and

- Prof. Francis Shen is leading a new collaboration involving six University researchers and multiple community organizations to develop a Minnesota Model for addressing youth sports concussions.

Research and Discovery

Conducting breakthrough research that moves us forward. Our researchers improve our understanding of the world and how we work and live.

Introduction

As described earlier in this report, the University's research mission is to generate and preserve knowledge, understanding, and creativity by conducting high-quality research, scholarship, and artistic activity that benefit students, scholars, and communities across the state, the nation, and the world.

With this mission as a guide, the University in 2013 created a five-year research strategic plan, with partners across the University system. In alignment with the Twin Cities strategic plan and other campus plans, the research plan builds upon the University's many strengths and creates opportunities to bring researchers together through collective inspiration and discovery. The following sections are the primary areas of focus for that vision.

Enhancing Research Excellence

The University seeks to enhance research excellence by investing in research infrastructure and faculty and educating students for the challenges and opportunities of tomorrow. As the state's major research university, the University plays an integral role in Minnesota's academic research and knowledge creation. As Table 5-1 shows, the University ranks eighth among public universities in research spending, with more than $910 million in research expenditures **(Progress Card Measures),** and because of survey reporting requirements, that figure represents research expenditures for the Twin Cities campus only. If all University campuses were reported together, the total would grow to $940 million. University of Minnesota research contributes to an estimated $8.6 billion annual economic impact for Minnesota.

A 2015 report, "America's Knowledge Economy: A State-by-State Review," highlighted public research universities as crucial contributors to the knowledge economy, providing advances in knowledge and technology that drive innovation, attract jobs, and foster economic growth.

According to the report, the impact of academic research in Minnesota, home to the University and the Mayo Clinic, exceeds the national average for nearly all fields of study. Minnesota ranks third in the nation

for the number of publications produced per $1 million spent on research and has the highest number of publications per capita in the Midwest. The University also tracks the influence of these publications, including how often they are cited by other scholars in their own research **(Progress Card Measure)**.

The report also highlighted medicine as the field Minnesota research has the most impact on, noting that almost 27 percent of the state's research pertains to the medical sector—the highest of any state—and its medical research is cited 32 percent more than the national average.

The University's Academic Health Center (AHC) faculty typically expends more than $400 million in research grants each year, accounting for close to half of the University's research portfolio shown in Table 5-1. The National Institutes of Health is the single largest sponsor of research at the AHC and the larger University, funding important projects across the entire continuum of biomedical and healthcare research in cancer, cardiovascular disease, neuroscience, infectious disease, diabetes, addiction, obesity, lung disease, child health, and fundamental studies in genetics, biochemistry, and cell biology.

Institutional Support for Research

Over the past five years, several research advancement funding programs under the Office of the Vice President for Research (OVPR) have provided more than $25.1 million ($34.3 million with matching funds) to researchers.

Research Infrastructure Investment Program

The Research Infrastructure Investment Program is one way the University ensures it maintains robust, state-of-the-art equipment to support research and academic endeavors, even as federal funding for research stagnates nationwide. These improvements to research infrastructure are key to catalyzing research and innovation, and support the University's talented researchers as they explore new ideas, form interdisciplinary partnerships, and make groundbreaking discoveries. In 2017, $1.3 million was matched one-to-one by funds from supporting colleges or centers, yielding over $2.6 million in total awards. The 13 projects that received funding this year will impact researchers from 25 departments,

Table 5-1. Top 15 institutions reporting largest research and development expenditures, fiscal years 2015 and 2016

		2015		2016		Percent Change 2015 to 2016
		Total*	Public Rank	Total*	Public Rank	
1	Johns Hopkins U.	$2,306 million		$2,431 million		5%
2	U. of Michigan–Ann Arbor	$1,369 million	1	$1,436 million	1	5%
3	U. Pennsylvania	$864 million		$1,296 million		33%
4	U. of California–San Francisco	$1,127 million	3	$1,294 million	2	13%
5	U. of Washington–Seattle	$1,181 million	2	$1,278 million	3	8%
6	U. of Wisconsin–Madison	$1,069 million	5	$1,158 million	4	8%
7	U. of California–San Diego	$1,101 million	4	$1,087 million	5	-1%
8	Harvard U.	$1,014 million		$1,077 million		6%
9	Stanford U.	$1,023 million		$1,066 million		4%
10	Duke U.	$1,037 million		$1,056 million		2%
11	U. of North Carolina–Chapel Hill	$967 million	7	$1,045 million	6	8%
12	U. of California–Los Angeles	$1,021 million	6	$1,038 million	7	2%
13	Cornell U.	$954 million		$974 million		2%
14	Massachusetts Inst. of Technology	$931 million		$946 million		2%
15	**U. of Minnesota–Twin Cities**	**$881 million**	**8**	**$910 million**	**8**	**3%**

Source: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey

units, and centers, representing eight colleges, and the Crookston campus. Supported projects include updated facilities for the Zebrafish Core Facility within the Medical School's Department of Neuroscience and establishment of the Crookston Center for Collaborative Research.

Grant-in-Aid

The Grant-in-Aid of Research, Artistry, and Scholarship Program provides grants to support scholarly and artistic activities of faculty and their graduate students to foster excellence throughout the University. Grant-in-Aid (GIA) projects represent the breadth and depth of University research in all disciplines and fields. While any faculty can apply for GIA funding, it plays an especially important role by providing new professors and emerging researchers

with opportunities to pursue research and scholarship that may not yet have received external funding. In the past five years, $14 million has been awarded through the GIA program. For every dollar invested, $7.10 in external funding was generated in fiscal years 2011–2015.

Grant Match

Some external funders require an institution to match funds to a specific grant activity. As grant processes become more competitive and federal funds stay relatively flat, the demand for such institutional matching funds continues to increase, resulting in higher levels of required institutional investment. The University works in partnership with colleges throughout the grant proposal process to coordinate the University's total commitment in matching funds, which averages about $2 million annually.

Minnesota Futures

The Minnesota Futures program supports extraordinary research by nurturing interdisciplinary ideas. There were three two-year grants this year totaling $500,000 a year. They are supported by technology commercialization revenue and they fund research opportunities that cross disciplinary and professional boundaries and support in-depth research that aims to address society's grand challenges. Since 2008, Minnesota Futures grants have supported research by faculty who go on to win substantial grants and whose innovations reach the market to potentially improve the lives of millions. For every dollar invested, $7.60 in external funding was generated in fiscal years 2010–2014.

The 2017 Minnesota Futures grants went to three projects: The University Sexual Violence Prevention (U-SIREN) Collaboratory to study under-examined aspects of sexual violence prevention; the Art and Science of Nesting Bees, which will create wild-bee nesting structures that are attractive as art and analyze bee nesting materials; and Customized Radio-Frequency Identification (RFID) Nanowire Tags for Exosome Enrichment in Blood Biopsies to discover biomarkers that may be important to understanding cancer.

Research Opportunities for Students

An important part of the educational experience at the University is the opportunity for students at all levels on all five campuses to engage with outstanding research faculty, not just in the classroom, but also in new research and creative projects. Undergraduate students can develop valuable skills through the Undergraduate Research Opportunities Program, and can present their research findings at campus symposia and a national conference dedicated to undergraduate research. Graduate and professional students work alongside faculty in the laboratory, the archives, and the studio, helping to generate new knowledge and creative works. Graduate and professional research roles prepare students to become future faculty as well as leaders in higher education, business, government, and nonprofit organizations around the world.

Advancing Human Research Protections

Many key research discoveries in human health and social sciences would not have been possible without individuals willing to participate in research projects. The University is dedicated to meeting, upholding, and exceeding the highest ethical standards in research practices involving human participants.

Following a rigorous review and assessment of its human research policies and practices in 2015, the University implemented major changes to enhance its human research protection program. The Advancing Human Research Protections initiative had the goals of strengthening protections for human research participants and establishing a program that will serve as a national model.

The initiative completed its implementation phase in December 2016, having put in place the more than four dozen recommendations from the review as well as additional enhancements. Almost nothing in the University's work with human participants has gone untouched. The University has taken the advice of the broader community and incorporated suggestions from critics, especially in engaging research participants and training and expectations for our staff and faculty. Among the enhancements implemented are:

- an expanded and restructured Institutional Review Board (IRB), which increased the number of members and the range of expertise represented, allowing for more timely and rigorous IRB reviews;

- new policies for research participants who have impaired or fluctuating capacity to consent;

- new checklists, worksheets, and tools that provide transparency for researchers applying to the IRB;

- additional professional training for researchers and staff on the updated policies and practices;

- expanded post-approval review activities to monitor and support compliance;

- creation of the Fairview University Research Oversight Committee (FUROC) to improve communication and partnership between researchers and patient care staff at the University of Minnesota Medical Center;

- a research ethics campaign to build awareness of

the University's principles, policies, and processes that uphold ethical research practices;

- new approaches for managing conflicts of interest;
- formalized community participation through a new Community Oversight Board; and
- a new online IRB management system called ETHOS, which began rolling out in 2017.

Although implementation of the plan has ended, the University now has more staff and improved processes in place to ensure compliance with University standards as well as state and federal regulations, enhanced IRB reviewing capacity, and regular community feedback and consultation. In December 2016, the University's Human Research Protection Program was reaccredited with special distinction by the Association for the Accreditation of Human Research Protection Programs. The special distinction that accompanies the reaccreditation commends the University for its new policy on adults with limited or diminished capacity to consent to participating in research. The policy stipulates a high level of protection to such potential participants and clearly conveys these expectations to the research community.

Advancing Transdisciplinary Partnerships

Transdisciplinary research partnerships involve collaborators from different disciplines and from outside organizations. The research is aimed at solving grand challenges that require multi-disciplinary perspectives, with outcomes that are societally significant and transformative.

Minnesota's Discovery, Research and InnoVation Economy (MnDRIVE)

MnDRIVE is a landmark partnership between the University and the state that aligns areas of University strength with the state's key and emerging industries to produce breakthrough research that addresses the state and society's greatest challenges. Starting in 2013, $17.5 million in state funding has been authorized each year for research across the four MnDRIVE research areas (Robotics, Sensors, and Advanced Manufacturing; Global Food Ventures; Advancing Industry, Conserving our Environment; and Discoveries and Treatments for Brain Conditions).

In the four years of activity thus far, funding has catalyzed projects involving more than 980 researchers across three campuses (Twin Cities, Duluth, and Morris), including more than 100 departments within dozens of colleges.

With these funds and others leveraged, 677 people have been hired to date. These hires include 31 new faculty who, in turn, are responsible for 106 hires, including lab technicians, graduate students, undergraduate researchers, and post-doctoral fellows. Furthermore, at least 60 MnDRIVE trainees to date have graduated and been employed in academia, government, and in industry with companies like Boston Scientific, Ecolab, Sundial Solar Energy, and Reg Life Sciences.

In the first half of 2017 alone, researchers involved in MnDRIVE have disclosed 28 inventions for patents or licensing and have received more than $25 million in funding from sources such as the National Science Foundation, Dupont, Allina Health, and Xcel Energy.

In its 2017 session, the Minnesota Legislature passed additional funding ($4 million per year) for a MnDRIVE cancer initiative, which will focus on creating a statewide, multi-site network of cancer clinical trials. Cancer is the leading cause of death in Minnesota, and a broadened network will enhance providers' knowledge, increase patient access to care, and lessen the time it takes to find a cure.

Increasing Informatics Capabilities

The University established Research Computing to consolidate management of services provided by the Minnesota Supercomputing Institute, the University of Minnesota Informatics Institute, and U-Spatial. These three units offer increasingly customized resources for computer- and data-intensive research to the University research community.

The Minnesota Supercomputing Institute (MSI) is a nexus for leading-edge research in scientific computing, for fostering interdisciplinary research on campus, and for enabling public-private collaborations. With close to 800 research groups and over 4,500 users, MSI enables high-impact research across the life, health, and social sciences and the high-performance computing tasks common to the engineering and physical sciences. In close

collaboration with the College of Food, Agricultural and Natural Resource Sciences on the Twin Cities campus, MSI is developing a platform for secure data sharing and analysis to foster public-private research collaborations in the agricultural sector.

The University of Minnesota Informatics Institute (UMII) was founded in 2014 to foster and accelerate research across the University system in agriculture, arts, design, engineering, environment, health, humanities, and social sciences through informatics services, competitive grants, and consultation. UMII's analysts work at the interface of core facilities and researchers to add value to the data through analysis. UMII funding supports undergraduate research through the Undergraduate Research Opportunities Program, and provides graduate fellowships for MnDRIVE-related research with a strong informatics component. One of the projects uses bioinformatics approaches to develop treatment techniques that mitigate the spread of antibiotic resistance in municipal wastewater.

U-Spatial collaborates with departments and centers across the University to serve a fast-growing need for expertise in Geographic Information Systems (GIS), remote sensing, and spatial computing. U-Spatial is increasing its support of research within Academic Health Center departments. Three examples are the development of a tool with Veterinary Medicine researchers to monitor safe swine transportation, working with researchers in Pediatrics to measure community support for GLBTQ teens, and working with Cardiology to map the prevalence of stroke patients throughout the United States.

Grand Challenges Research

The focus on grand challenges research is aimed at marshaling the University's exceptional strengths to address society's most difficult and pressing problems. This is part of the vision to enhance ambitious transdisciplinary research and expand collaborations for greater impact, as emphasized in the *Driving Tomorrow* strategic plan. Through the Provost's Grand Challenges Research Initiative, the University is implementing new strategies to engage interdisciplinary teams of faculty, students, and community partners in collaborative research addressing the most significant problems of Minnesota

and the world. An overarching goal is to build new institutional pathways and mechanisms for transdisciplinary research, deepening engagement with communities and leading to innovative solutions. The University has made internal investments to seed and foster high-potential collaborations in five grand challenges areas of special focus (see the Twin Cities Planning chapter on page 10 for more details). The expanded strategies intersect with a variety of significant grand challenges collaborations aligning University strengths with opportunities and needs; the four-year-old MnDRIVE initiative is a prominent example. All collaborations to address grand challenges build on the expertise and strengths of faculty across the campus in both interdisciplinary and disciplinary research, as well as in teaching excellence and in outreach and public engagement.

Publicly Engaged Research

Public engagement, in part, is the partnership of university knowledge and resources with those of the public and private sectors to enrich scholarship, research, and creative activity. Through these partnerships, engaged research can address critical societal issues and contribute to the public good. The local knowledge of community partners can be an important complement to the scientific inquiry that University researchers provide to address problems—with a focus on working with the community, rather than doing for the community.

Public engagement also serves as a strategy for enhancing research. By partnering with local, regional, and international community residents, agencies, businesses, governmental agencies, and others, public engagement can leverage research funding, provide new opportunities for faculty, enrich the student educational experience, and enhance the University's contributions to addressing issues in local and broader societies. Faculty members in departments and centers across the University have developed quality partnerships with external entities that have leveraged research funding and have implemented research that focused on addressing important societal issues. See the following Outreach, Service, and Engagement chapter on page 95 for select examples of community-engaged research.

Accelerating the Transfer of Knowledge

Economic Development

The Office of University Economic Development (UED) was established in 2014 to help business and industry partners connect with University resources, services, and expertise, and to work with government and economic development partners to identify opportunities for collaboration that grow and diversify Minnesota's economy. It serves as the front door and more for economic development at the University of Minnesota.

In February 2016, UED approved a strategic action plan that establishes a vision and set of strategic imperatives that create a framework for increasing statewide collaboration, pursuing public-private partnerships, and promoting economic opportunity. In alignment with this strategic action plan, UED has hosted 200 business and community partner visits to the University and made 231 on-site visits to business and community partners. As shown in Figure 5-A, over 20 percent of the 600 visits since January 2015 were to greater Minnesota. UED represented the University's innovation and talent resources at 224 conferences and events—presenting or exhibiting at a third of them.

In early 2016, UED and the Office of the Vice President for Research brought together a diverse group of stakeholders from the state, the University, and the private sector to discuss the current and future role of international immigration in meeting the needs of Minnesota's workforce. The Committee on Minnesota Workforce and Immigrants was led by UED Executive Director Maura Donovan and then-Dean of the Humphrey School of Public Affairs Eric Schwartz, and included representatives from the Minnesota Chamber of Commerce, Greater MSP, Governor's Workforce Development Board, Minnesota Department of Employment and Economic Development (DEED), Minnesota Department of Human Services, and the Greater St. Cloud Development Corporation.

The committee identified the need for a well-researched foundation for discussion of the role of immigrants in the workforce and commissioned Humphrey School of Public Affairs Associate

Figure 5-A. Office of University Economic Development Visits and Events, 2015–2017
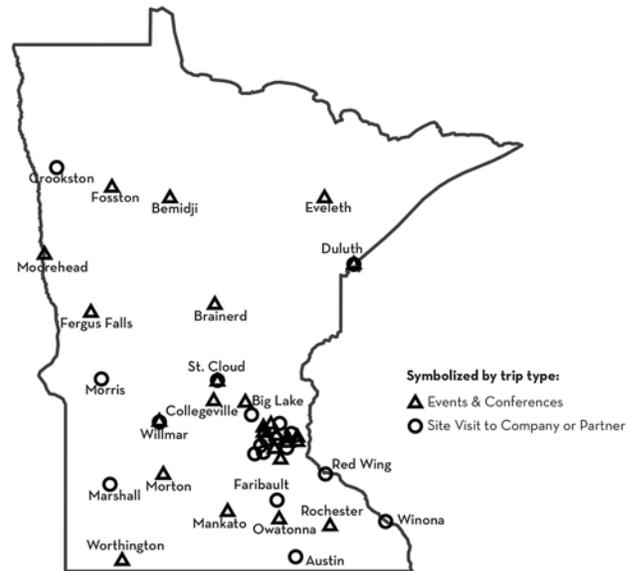
Source: Office of the Vice President for Research, University of Minnesota

Professor Ryan Allen to author this report. Published in early 2017, "Immigrants and Minnesota's Workforce" (z.umn.edu/immigrantworkforce) found that the future strength of Minnesota's economy depends on attracting and integrating immigrants into its workforce. The report included three case studies of community integration of immigrants in Minnesota.

Donovan and Bill Blazar, senior vice president of the Minnesota Chamber of Commerce, took the report on the road in spring 2017 to nine destinations, including Rochester, Faribault, St. Cloud, and Sartell, to engage community leaders and economic development professionals on its findings.

In January 2016, UED launched the Economic Development Fellows (EDF) Consulting Program with support from the Graduate School. EDF connects regional companies with graduate students, professional students, and postdocs seeking opportunities to gain experience in business consulting.

Thirty companies from a variety of industries, including medical devices, biotechnology, pharmaceuticals, retail, and environmental technology, have participated in the EDF program since it launched. To date, over 150 students from 15 colleges have participated in the program.

UED responded to 309 "Front Door Requests" in fiscal year 2017, connecting business and community partners to University research and talent resources. Twenty-three percent of requests from industry involved Fortune 500 (or FT Global 500) companies. Twenty-one percent of requests from industry involved companies in the Corporate Engagement Workgroup (CEW), which cuts across University programs and units to strengthen industry-University partnering.

Going forward, UED will continue to identify new opportunities to connect the resources of the University with business, government, and community leaders working to advance talent, innovation, and global trade. Those efforts include developing a stronger voice in Minnesota's workforce issues, participating in promotion of Minnesota as a business destination, and creating experiential learning opportunities within Minnesota's business community.

Technology Commercialization

The University of Minnesota is committed to accelerating the transfer of knowledge by creating opportunities for public-private partnerships that move ideas and innovations out of the University and into the world, where they can do the most good.

The Office for Technology Commercialization (OTC) is a key part of the connection between the ideas and innovation created at the University and the companies, capital, and entrepreneurs who can bring them to the marketplace. This year, OTC was an important part of these successes, including:

- The University experienced another record year in fiscal year 2017 with 18 startup companies, the eighth consecutive year that the number of startups has increased.

- The University has launched 119 startups, with 78 percent still active, and has developed a strong startup pipeline of technologies with the potential to spin out into new companies.

- A survey of University startup companies found that since the OTC-Venture Center was formed in 2006, these startups have raised approximately $400 million in outside investment capital.

- These University startup companies are also moving to the next stage of startup growth: business transitions, where startup companies

scale up, go public, or are acquired. Towards the end of fiscal year 2017, several startup companies were positioning themselves for acquisition or initial public offering in early fiscal year 2018.

- Minnesota Innovation Partnerships (MN-IP) is a series of programs designed to make it easier for industry to work with the University, both in sponsoring research and in licensing technology. MN-IP has two programs:

  ○ Try and Buy, a low-risk, low-cost means for companies to test University technology, including pre-set, industry-friendly licensing terms, which was expanded in fiscal year 2017 to include 151 available technologies.

  ○ MN-IP Create, a program designed and updated in response to industry feedback, which streamlines the process for industry-sponsored research and licensing of resultant IP. The menu of licensing options from which companies can choose includes fixed-fee and exclusive or non-exclusive licensing. Since its inception, MN-IP Create has led to 333 agreements with 190 unique companies **(Progress Card Measure)**, with a value of $53.9 million in research sponsorship.

- Seven promising University startup companies have been approved for funding consideration under the Discovery Capital investment program, three of which have been further approved for a second round of investment. Launched in 2014 to help University startups overcome the high hurdle of early-stage financing, the program offers seed funding with a requirement that the investment be matched by external partners. The program has invested $2.2 million, attracting total matches of $17.9 million.

- UMN startups Innotronics, LLC and Minnepura Technologies, SBC were named among the 35 "Best University Startups 2016," and Photonic Pharma, LLC and ThermChem, Inc. were named among the 40 "Best University Startups 2017" by the National Council of Entrepreneurial Tech Transfer. Three University inventions received National Innovation Awards from TechConnect, a global innovation scouting company.

- Staff continued to reinforce OTC's internationally recognized leadership in university technology

transfer, with OTC ranked as the sixth best public university technology transfer office in the country, and fourth among all U.S. universities in terms of license deals completed, according to a study by the Milken Institute. Additionally, OTC was the only external university invited to participate in strategy development meetings as part of the University of California's UC Innovation Thinking Day.

MN-REACH

The University is one of only three institutions with a National Institutes of Health Research Evaluation and Commercialization Hub (REACH) grant. When combined with University matching funds, these grants make a total of $6 million available to selected teams over three years. MN-REACH provides University-wide commercial expertise and resources to help develop and commercialize diagnostics, therapeutics, preventative medicine, and medical devices. Now in the middle of its third year of operation, the program has provided coaching for more than 63 faculty teams; provided skills development offerings for more than 200 faculty, post-docs, and graduate students; and awarded grants totaling $2.95 million to 26 promising projects addressing 24 unique, unmet clinical needs.

MIN-Corps

MIN-Corps is the University's site for Innovation Corps, part of the National Science Foundation's programming that focuses on expanding scientists' skill set out of the laboratory to translate their discoveries into the commercial world. University teams receive micro-grants to fund initial prototyping and customer research, part of a 14-week startup course in which students and faculty are paired with industry mentors to test their assumptions and search for a sustainable business model. Beyond the startup curriculum and MN-REACH support described above, MIN-Corps delivers training and information sessions to faculty and students to promote the University's entrepreneurial culture. Over 450 faculty and students attended one or more MIN-Corps offerings throughout the year.

External Stakeholder Engagement

The External Stakeholder Engagement program promotes collaborative research across disciplines with external stakeholders, such as industries, government agencies, nonprofits, and community organizations. The program started in 2016 with four pilot projects to co-locate visiting experts to accelerate the transfer of knowledge for the public good.

One of the projects brought a graphic designer from a major firm to campus to bridge the experimental and practical worlds of graphic design through scholarship and creative production. The designer has collaborated with different research units for projects in relation to environment and climate and helps both faculty and students to engage in channeling graphic design practice towards scientific communication to the public. Another project with 3M uses mathematical and computational approaches to identify structures in high-dimensional datasets to develop new technologies for computer vision.

The program emphasizes the bidirectional transfer of knowledge between academia and external stakeholders for the benefit of both partners. The visiting experts spend time embedded in academic units, participating in research, scholarship, or artistic and creative experiences, with University faculty, students, and staff.

Promoting a Culture of Serendipity

Promoting a culture of serendipity is central to connecting researchers across departments, colleges, and disciplines—and with colleagues and communities outside of the University—to think creatively and cultivate new ideas. Connectors, individuals across and at all levels within the University, play essential roles in bringing together seemingly unrelated disciplines and ideas to foster creativity and innovation.

Convergence Colloquia

Convergence Colloquia were multi-disciplinary gatherings created to advance cutting-edge research to develop innovative solutions and build long-term partnerships that improve the world. Seven highly successful Convergence Colloquia drawing more than

600 participants were held from 2015 to 2016 on the topics of smart cities and infrastructure, aging, health equity, renewable energy, sustainable food systems, water supply, and citizen science.

The colloquia were followed by the opportunity to build new collaborative research teams with funding from dedicated Serendipity Grants. Following on the seven Convergence Colloquia, 25 Serendipity Grants (out of 60 proposals) totaling more than $522,000 were awarded, with $130,000 supported by the McKnight Foundation. Grantees also leveraged the funds for, at minimum, an additional ten external grants worth $2.8 million. Serendipity Grants supported projects to highlight the challenges facing rural grocery stores; to build a community of local practitioners monitoring the health of the St. Louis River and Lake Superior watersheds; to benchmark the sustainability and efficiency of urban farms; to survey the needs of transgender senior citizens in Greater Minnesota; and to use citizen science to address Minnesota's achievement gap, among other topics.

Connectors Network and Serendipity Team

Two University-wide committees continue to work to identify, network, and empower the administrators, faculty, and staff that play an essential role in bringing together seemingly unrelated disciplines to foster creativity and innovation.

The Serendipity Team draws on the expertise of administrators and faculty from across the University who are leaders in advancing cross-disciplinary connections. The team has identified four models for sparking large interdisciplinary projects that are successfully funded at the University and is analyzing which of these strategies might be expanded to grow interdisciplinary research and funding across the University.

The Connectors Network, composed of collegiate and research center staff who are involved in research advancement activities and who play an important role in spurring cross-disciplinary research within their colleges, has formed three working groups. One group is working with the Serendipity Team to pilot a model to provide additional administrative support to researchers in the process of assembling large interdisciplinary grant proposals. Another group is starting a new University-wide network of research advancement and development staff to share ideas, resources, and expertise and help increase awareness of these staff members among faculty researchers. A third group is developing more tools and resources for staff who coordinate grants to help reduce the administrative burden of submitting grants. The latter group has already created a new centralized list of key personnel who approve grant proposals within University units.

For more about research at the University, visit research.umn.edu.

Outreach, Service, and Engagement

Partnering with communities to advance research, share knowledge,

and provide students with powerful academic experiences that address

society's most challenging issues.

Introduction

The University's three-fold mission includes the imperative to partner with communities to advance research, share knowledge, and provide students with a real-time, real-life academic experience. This has been an emphasis of the University from its foundation and strengthened by a comprehensive Ten-Point Plan for Advancing and Institutionalizing Public Engagement, which since 2008 has focused on what contemporary higher education calls the "new engagement." This new engagement shifts the focus away from traditional, uni-directional community outreach efforts to more academically integrated activities in which the University's research, teaching, and learning efforts are designed to address societal issues through reciprocal, mutually beneficial partnerships.

Reciprocal public engagement is one of the four interrelated goals articulated in the Twin Cities campus strategic plan, which supports the vision of the University as preeminent in solving the grand challenges of a diverse and changing world. Although initially anchored in strategic planning for the Twin Cities campus, this vision—which supports dynamic University-community partnerships to advance discovery, create pathways for students, and benefit the state of Minnesota and the world—is consistent with the goals and strengths of all five campuses and their various colleges.

In September 2016, a 38-member work group was charged with recalibrating the Twin Cities campus's public engagement agenda and developing a set of action steps for furthering the institutionalization of reciprocal, public engagement over the next five years. Composed of faculty, engagement unit leaders, staff, and students from a broad range of disciplines and units, this work group engaged in a yearlong process to identify key priorities for advancing public engagement, articulate a vision for each priority, and develop a set of action steps to guide the campus's work in fully meeting the identified engagement priorities. The group produced an initial draft of the action plan in March 2017. Throughout the month of March, a series of public feedback sessions were held on the Twin Cities campus and in the community, during which work group members garnered feedback on the initial draft. Individuals and groups were also invited to submit input and suggestions for revision via an online feedback system.

The final version of the Public Engagement Action Plan, released in June 2017, comprises ten priority areas, with an emphasis on addressing internal policy, infrastructure, and culture issues to strengthen the campus's reciprocal engagement and mutually beneficial partnerships across all aspects of publicly engaged research, teaching, and outreach efforts. This plan is designed to intersect with other campus-wide and systemwide strategic plans.

In addition to the Twin Cities process, Crookston, Morris, and Rochester are in the final stages of preparing campus-specific public engagement action plans. The Duluth campus is developing a new action plan for public engagement during the 2017–2018 academic year.

This reciprocal public engagement agenda continues to support long-term relationships with public and private sectors and connects community engagement to all aspects of the University's identity as a land-grant university, an institution of higher learning, a research university, a metropolitan university, and a public university. Publicly engaged research, teaching, and outreach initiatives enhance the University's capacity to produce research of significance, to improve educational experiences of students, and to be a source of knowledge and solutions for communities. The University's campuses are located across the state, in thriving metropolitan areas and in rural regions with agricultural strengths and traditions. The University leverages the distinctive strengths and location of each campus to engage with a range of partners—communities, businesses, nonprofits, civic and governmental bodies, and arts and cultural organizations.

Leading Nationally as an Engaged University

During the 2016–2017 academic year, three of the University's campuses—Crookston, Morris, and Twin Cities—were named to the 2016 President's Higher Education Community Service Honor Roll, which recognizes institutions of higher education that support exemplary community service programs and raises the visibility of effective practices in campus-community partnerships. The Honor Roll's

Presidential Award is the highest federal recognition an institution can receive for its commitment to community, service-learning, and civic engagement.

In 2017, the University of Minnesota Libraries received the National Medal for Museum and Library Service, which is the nation's highest honor given to museums and libraries for service to the community. The award celebrates institutions that respond to societal needs in innovative ways, making a difference for individuals, families, and their communities. This is only the third time the award has been given to an academic library.

In addition, the Association of Public and Land-grant Universities named the University of Minnesota as the winner of the inaugural Institutional Award for Global Learning, Research, and Engagement. This new award recognizes institutions at the leading edge of inclusive and comprehensive efforts to internationalize their campuses. With leadership from the Global Programs and Strategy Alliance, the University of Minnesota has established a wide-ranging internationalization effort that spans the entire institution—from international students and study abroad to research projects and curriculum design.

The Association of Public and Land-grant Universities also recognized the University of Minnesota's Institute on the Environment with an exemplary designation for the 2017 W. K. Kellogg Foundation Community Engagement Scholarship Awards and the C. Peter Magrath Community Engagement Scholarship Award. The award recognizes programs that demonstrate how colleges and universities have redesigned their learning, discovery, and engagement missions to become even more involved with their communities.

The Morris campus was recognized with a 2016 Clean Energy Community Award. The award, sponsored by the Minnesota Commerce Department, recognizes Minnesota communities that are furthering the state's clean-energy goals by implementing programs, policies, and technologies that encourage energy efficiency, conservation, and renewable energy. Together with the City of Morris, the University of Minnesota has launched several complementary initiatives with diverse partners to incorporate clean energy and conservation goals into its overall planning efforts.

One faculty member and one community partner were inducted into the selective Academy of Community Engagement Scholarship. Inductees are singled out and recognized for significant contributions to strengthening collaborations between educational institutions and communities and for field-shaping work that furthers community-engagement theory, policy, and practice. Also, for the first time in University history, a University of Minnesota student was named a 2017 Newman Civic Fellow. The fellowship, sponsored by Campus Compact, supports community-committed university students who have demonstrated an investment in finding solutions to community challenges. The one-year fellowship brings these outstanding student problem-solvers together in a national network focused on making positive change across the country.

The University remains an active member of and plays a leadership role in national and international peer networks devoted to strengthening and leading higher education's "new engagement" agenda. These include: Campus Compact; Imagining America; Council of Engagement and Outreach of the Association of Public and Land-Grant Universities; Big Ten Academic Alliance Engagement Council; Community-Campus Partnerships for Health; National Academy for Community Engagement Scholarship; International Association for Research on Service-Learning and Community Engagement; Coalition for Urban and Metropolitan Universities; National Review Board for the Scholarship of Engagement; and the Engagement Scholarship Consortium.

As a leader within these organizations, the University hosted two meetings in summer 2017. The first was a national convening of engagement and outreach administrators from research universities across the United States. Over the course of two days, attendees examined the ways that university leaders of public engagement can strengthen their public engagement agendas. This event launched the establishment of the National Forum for Chief Engagement and Outreach Officers, which will meet semi-annually to continue this work. The University also hosted the meeting of the Big Ten Academic Alliance Engagement Council, which brings together the lead engagement and outreach administrators from Big Ten institutions to examine critical issues pertaining to university

public engagement. At this meeting, council members examined federal research funders' expectations for broader impacts, the politics of engagement, and issues with managing multiple public engagement agendas (i.e., student academic engagement, faculty community-based research, economic development, Extension statewide programming, international engagement, etc.).

Commitment to public service is one of the cornerstones of the University's mission as a public land-grant institution. Like teaching and research, public service is embedded in the many diverse functions of the institution, from medical clinics and service-learning classes to extension research and education centers throughout the state and world. Although no one metric can capture the quality or impact of the University's public service activities, expenditures on public service activities **(Progress Card Measure)** are an indication of its commitment, similar to expenditures on research activities. The University expects to maintain or increase its level of public service expenditures.

Deepening the Culture of Publicly Engaged Research and Teaching

Several strategic initiatives were advanced to strengthen and deepen the integration of local, regional, national, and international public engagement into faculty research and academic curricula, as well as undergraduate and graduate student learning. These initiatives included engagement recognitions, policy developments, and actions that promote the principles of high-quality, reciprocal University-community engagement. A few examples from the 2016–2017 academic year include:

- The Public Engagement Council, a systemwide deliberative body that addresses critical and complex issues concerning public engagement, advanced twelve policy issues including setting standards for community-engaged scholarship that can guide department- and college-level promotion and tenure review committees in assessing the quality and scholarly value of faculty members' community-engaged research, teaching, and public engagement; and streamlining various transactional processes for community partners who collaborate with the University.

- Six faculty members were named Community-Engaged Teaching and Learning Faculty Fellows. The fellows program provides support to faculty to develop new courses or revise existing courses using community-engaged learning principles.

- The systemwide Community-Engaged Learning course attribute is now available for instructors to select for courses that include a community-engaged learning component. Faculty can use the attribute, which was developed in response to student interest, to spotlight community-engaged learning pedagogies in course descriptions. The attribute also helps students and academic units identify courses that contain community-engaged learning opportunities. In its pilot year, the attribute was used for 154 courses with 6,748 enrolled students.

Addressing Societal Issues through Public Engagement

The University's publicly engaged research, teaching, and outreach activities address a broad range of societal issues across a diverse set of communities, settings, and regions, examples of which follow.

Leadership and Civic Development

- The Center for Urban and Regional Affairs' **Hennepin-University Partnership** recruited 400 University student volunteers to help Hennepin County process an estimated 120,000 absentee ballots during the week prior to the 2016 presidential election day. With the students' help, Hennepin County Elections was able to process and count absentee ballots more rapidly than anticipated. As an additional outcome of this project, students expressed interest in exploring future career opportunities with Hennepin County.

- In southern Minnesota, **Extension** leadership and civic engagement educators worked in four counties to create bridges among communities while preparing emerging leaders for future leadership roles. A post-program evaluation of these cohorts in 2016 revealed that 90 percent of participants in these programs gained new knowledge about other towns in their county, 73 percent had increased the formal links and networks they had with people from other communities, and 58 percent said that the county

had a better shared vision for the future as a result of the program.

- The **Undergraduate Leadership Minor** field experience brought together 180 undergraduate students and 50 community partners to work on community-identified projects related to young people, health equity, the arts, and social enterprise.

- Two graduate education programs facilitated by the **Interdisciplinary Center for the Study of Global Change** hosted 15 scholars from twelve academic departments within five colleges and schools. The scholars—from countries including Chile, Costa Rica, India, Mexico, South Africa, the United States, and Zimbabwe—studied the global south in the context of global change.

Economic Development

- Now in its 13th year, the Carlson School of Management's **MN Cup** is a startup competition and hub to connect Minnesota's entrepreneurial ecosystem. In 2017, out of the 520 teams in the competition, 29 percent were led by minorities and 37 percent by women. In total, 1,280 people participated in the competition.

- The **Metropolitan Design Center** (MDC), within the Twin Cities campus' College of Design, explores how an integrated urban design approach makes metropolitan communities more livable and sustainable. Using the Twin Cities area as a laboratory, the MDC's teaching, research, and outreach programs bring University faculty and graduate students together to participate in critical design and research investigations of issues that make livable and sustainable cities possible.

- Duluth's **Center for Economic Development** (CED) works to strengthen the viability of the Duluth region as a recognized leader in small business development. In 2017, CED assisted the economic development of Northern Minnesota by helping 1,040 entrepreneurs and businesses grow and succeed. This included one-on-one consulting on issues such as finances, marketing, business start-up and loan packaging, as well as partnering 195 students with 35 businesses to work on business projects through the Student to Business Initiative program.

- **Government and Community Relations** connected University units and faculty with the Cedar Riverside Opportunity Center, which opened in March 2017. The Center is a one-stop shop for educational, workforce, and career pathway services with direct access to skill-building opportunities that lead to well-paying jobs in the Cedar Riverside neighborhood.

- Extension's **Center for Community Vitality** delivered 165 applied research reports to Minnesota communities in 2016. This research helps local leaders make critical decisions about investments. End-of-year interviews indicated these reports had, for example, helped match job applicants to local jobs, informed comprehensive plans for local government, resulted in tourism development, informed marketing plans, helped to restructure a Chamber and Economic Development Corporation, and informed local tax abatement policy.

Environment and Sustainability

- **University of Minnesota Extension**, the **Minnesota Aquatic Invasive Species Research Center**, and the Minnesota Department of Natural Resources have partnered to develop a training certification course that empowers citizens to help identify and fight aquatic invasive species in their communities. This past academic year, 125 Minnesota citizens participated in the program.

- As a student-led initiative, the **Engineers Without Borders** program develops students as humanitarians, engineers, and leaders. Working primarily on issues of water access, the program has partnered with three communities in Bolivia, Guatemala, and Uganda to design and implement water access solutions such as harvesting rainwater and ensuring potable water reaches communities.

- Working in five regions across the state, Extension's **Regional Sustainable Development Partnerships** brought together 364 partners on 127 community-driven sustainability projects across Minnesota working on issues ranging from water quality to local foods to economic development.

- Through the **Natural Capital Projec**t, an NGO-academic partnership between the Institute on the

Environment, Stanford University, The Nature Conservancy, and World Wildlife Fund, over 334 people from over 30 countries attended the Natural Capital Symposium, including researchers, practitioners, and decision-makers from the public and private sectors, to explore approaches and tools to utilize nature's contributions to society.

- The **Institute on the Environment**, through Acara Impact Entrepreneurship, taught 230 students how to develop interdisciplinary solutions to environmental problems and funded the launch of nine of these solutions in Minnesota, Uganda, India, Haiti, and Nicaragua.

- **Extension**'s natural resources team recruits, trains, and supports Minnesotans who volunteer for citizen science projects statewide. These programs mobilized 1,355 volunteers who committed 82,769 hours to citizen science projects. Projects included the Minnesota Bee Atlas, where volunteer observers help create a statewide list of native bees found in Minnesota, and the Minnesota Master Naturalist program, which promotes stewardship of Minnesota's natural environment.

- Extension's **Nonpoint Education for Municipal Officials** held three "workshops on the water" for 145 elected and appointed officials and community leaders, including city council members and watershed board and advisory committee members. Of the leaders participating, 83 percent said they were preparing to take action on things such as adopting minimal-impact design standards in communities, educating the community on the benefits of reducing water consumption, and protecting high-risk erosion areas.

Equity and Diversity

- The City of Brooklyn Park is working with students from the **Humphrey School for Public Affairs** to improve strategies to foster a more equitable community. The city is partnering with students in the Master of Urban and Regional Planning program to document changes in the community and propose solutions to such issues as economic development, housing, and school mobility.

- The **Robert J. Jones Urban Research and Outreach-Engagement Center** is partnering with

the Governor's Office of the State of Minnesota and the Women's Foundation of Minnesota to address issues of equity in opportunity for young women throughout the state.

- The Duluth campus's **Center for Regional and Tribal Child Welfare Studies** received a federal grant from the U.S. Department of Health and Human Services to create a better delivery system for the Indian Child Welfare Act, a federal law that seeks to keep American Indian children with American Indian families. This five-year grant supports the center's partnership with six community-based groups and organizations including courts, child welfare agencies, and tribes. In addition, the Duluth campus has received a $110,000 grant to train newly elected and appointed tribal leaders and administrators. Through a new certificate program, participants complete a capstone project and present emerging research on best practices in tribal administration and applied tribal sovereignty.

- The Immigrant Stories project, coordinated by the **Immigration History Research Center**, has collected over 250 stories representing more than 50 different communities from recent Minnesota immigrants and refugees. An expansion plan was developed as part of a $320,000 National Endowment for the Humanities grant, which will engage the center in partnerships to take these efforts to other regions of the country.

- The Center for Urban and Regional Affairs' **Artist and Neighborhood Partnership Initiative** programs offered technical assistance and ten small grants to individual artists and community-based, neighborhood-based, and other place-based organizations to increase engagement, power, and influence of community members affected by racial, social, and economic disparities.

- The Center for Urban and Regional Affairs' **Neighborhood Leadership and Organizing** program builds the capacity of residents and place-based organizations to take on local concerns by developing the skills of their organizers and leaders through trainings, support, and strategic partnership building. The program held 20 trainings this year with more than 140 attendees.

Food and Agriculture

- University of Minnesota Duluth students employed at **Glensheen** continued to grow and harvest produce for people around the country as part of a collaborative involving Glensheen, Second Harvest Northern Lakes Food Bank, and Extension. Over the past decade, they have harvested more than 13,000 pounds of produce for people in eight counties.

- The **Institute on the Environment** partnered with the Natural Capital Project and the University of Vermont to build a mobile app that helps farmers and gardeners share and explore best practices for bee pollination. Developers focus on the business side of conservation management by including the ability to conduct productivity and cost-benefit analyses.

- The **Healthy Foods, Healthy Lives Institute** co-hosted the Conference on Native American Nutrition in September 2016 to bring together tribal officials, researchers, practitioners, and community leaders to discuss the current state of indigenous and academic scientific knowledge about Native nutrition and food science and how the various stakeholders can work together on future projects. In total, 450 participants, representing 84 tribal communities, attended.

- Extension's Center for Agriculture, Food, and Natural Resources delivered eight **Nitrogen Smart** training programs to minimize nitrogen losses. In total, 274 farmers attended the workshops. As a result, twelve percent of attendees stopped using fall urea, a fertilizer that can affect nitrogen loss, which led to an estimated 12,512 acres of land that reduced nitrogen loss by 150,240 lbs.

- Two new sets of curriculum and teaching resources helped Extension **Master Gardeners** address statewide critical concerns. The "Water Wisely" curriculum addresses water waste in lawns and gardens. The "Pollinators and Native Plants" teaching package educates the public on the issue of habitat preservation and protection for pollinators, which pollinate more than 70 percent of Minnesota's fruit and vegetables. In total, 2,371 volunteers provided 143,408 hours of time to community education over the past year. The volunteers reached 151,287 adults, 59,519 youth,

and 36,696 individuals from under-represented audiences. Minnesota Master Gardeners were involved with 105 community gardens and 56 school-based gardens. Their effort resulted in 12,832 pounds of produce donated to food banks and pantries.

Health, Medicine, and Well-Being

- The Clinical and Translational Science Institute's **Office of Engagement to Advance Research and Community Health** conducted three Community Engagement Studios that engaged more than 80 community members to help inform research conducted at the University.

- Three University-community research teams were awarded pilot grants in health disparities research in fall 2016. Run by the **Program in Health Disparities**, the grants encourage community-initiated research and foster sustainable long-term collaborations between community-based organizations and academic researchers on projects focused on reducing and eliminating health disparities.

- The **Community-University Health Care Center** (CUHCC) provided primary medical, behavioral health, and dental care services to over 11,000 patients in 55,000 visits. As one of the largest urban health clinical training sites for nearly 300 health professional students and residents, CUHCC continued to serve the Phillips and surrounding communities of south Minneapolis, including patients from over twelve different racial and ethnic groups spanning five continents.

- The **Center for Bioethics** held a series of events on Violence and Health Injustices. In total, more than 500 people attended workshops on topics such as racism and police violence; refugees, asylum seekers, and undocumented communities; and dismantling campus rape culture.

- Leaders and staff from community organizations participated in the Community Research Institute 2.0 (CRI 2.0), an eight-week workshop from the **Program in Health Disparities Research** and the **Office for Business & Community Economic Development**. CRI 2.0 is designed to enhance the capacity of community organizational leaders and staff in health-related research methodology,

so they can develop and conduct grant-fundable research projects and/or increase their capacity to develop research partnerships. This year's cohort included two community-based organizations from North Minneapolis.

- The **Consortium on Law and Values in Health, Environment & the Life Sciences** reached 1,947 people through a series of trainings and events on topics such as how patients are creating medicine's future, emerging diseases, and a two-day national conference on the future of informed consent in research and translational medicine.

Interdisciplinary Public Engagement

- Juniors and seniors on the Rochester campus participated in the **Community Collaboratory (CoLab)**, through which students take part in a project to improve the quality of life in Southeastern Minnesota and contribute to meaningful partnerships between the Rochester campus and the surrounding community. The campus has developed strong ties with local public, private, and nonprofit organizations, including the YMCA, where students are helping develop programs to fight childhood obesity; the Boys and Girls Club, where students help children learn about college and career options; and the Hawthorne Education Center, where they continued to work to fund a laptop program.

- The **Robert J. Jones Urban Research and Outreach Engagement Center** (UROC) has vital partnerships between the University and North Minneapolis to advance learning, improve quality of life, and discover breakthrough solutions to urban-based critical problems. During 2016–2017, UROC completed 55 research projects involving 99 community partners and 43 University partners; these projects addressed issues pertaining to education and lifelong learning, health and wellness, and economic and community development. In addition, UROC launched a website for use as a dissemination tool and conversation starter for community partners and researchers who work in the area of trauma.

- Since 2009, the Morris campus's **Office of Community Engagement** has hosted monthly community meals at Legacy Living, Morris Senior Center, and Faith Lutheran Church to foster conversation between students and elders. Since the program's inception, the number of attendees has grown to an average of 225.

- The **Center for Integrative Leadership** engaged the Cedar Riverside neighborhood community in a variety of ways to further discussion and skill building of individual and shared leadership. Examples include neighborhood leadership development forums; an undergraduate leadership course that engaged students in the neighborhood in an experience that parallels the immersion of study abroad; early childhood education efforts; a small-business case competition through partnership with the Carlson School of Management; and a public health collaborative between the School of Public Health and interested Somali community members. In addition, the center was selected to host the 2017 Mandela Washington Fellowship Institute. The fellowship, the flagship program of the federal government's Young African Leaders Initiatives, empowers young African leaders through academic coursework, leadership training, mentoring, networking, professional opportunities, and support for activities in their communities.

- The Center for Urban and Regional Affairs matched research and technical needs of organizations with student research assistants to carry out 41 community-defined and guided projects. The **Community Assistantship Program** serves Greater Minnesota community-based organizations and government agencies while the **Kris Nelson Community Based Research Program** works with community-based organizations or government agencies in the Twin Cities area.

- The Center for Urban and Regional Affairs facilitated the **Community Geographic Information Systems** program, a walk-in technical assistance center providing mapping services, data analysis, and GIS training opportunities to neighborhood groups, community-based organizations, and other nonprofits in the Twin Cities metro area and Greater Minnesota. The program produced 400 maps for 45 different organizations, totaling 60 separate projects.

Youth and Education

- **Ramp-Up to Readiness** continued to partner with middle and high schools to establish school-wide programs designed to help prepare students for postsecondary success. The program, run by the College Readiness Consortium, leads students through a research-based sequence of activities and workshops that prepares them for postsecondary success. Over the years, 122,001 students in 215 schools in eight states (Minnesota, Wisconsin, Michigan, Connecticut, Ohio, Oregon, Kansas, and Utah) have been served by the program.

- In the past year, **Path to Reading Excellence in School Sites** (PRESS)—a framework for data-driven decision-making and interventions in elementary reading—provided professional learning workshops to over 3,000 educators at districts across Minnesota, Wisconsin, and Iowa. In addition, over 200 educators attended PRESS workshops at the University to learn and implement the framework.

- Together with White Earth Tribal and Community College, the **Crookston campus** offered an undergraduate program in early childhood education and elementary education. This program offers to its cohort of 15 students a customized learning environment that encourages the pursuit of baccalaureate degrees in early childhood education and elementary education.

- Over 500 University of Minnesota faculty, K–12 educators, youth, and school and community leaders gathered in June 2017 for the **Educational Equity in Action II** conference to share research and programs on the theme of "Working Across Schools and Community to Enhance Social Emotional Learning." Presentations explored the impact of chronic trauma on youth, including a special focus on American Indian students.

- The **Department of Gender, Women, and Sexuality Studies** partnered with St. Paul's Parkway Montessori and Community Middle School for the second year to help students create and share digital stories to deepen their sense of community and to help them advocate for their community. In the signature immersion experience for this initiative, 300 seventh and eighth graders marched to the state capitol from St. Paul College to engage with legislators and other civic leaders about their issues of concern.

- Successful engagement with youth requires that youth workers and adult volunteers have a deep understanding of youth development and an intentional method to welcome and integrate youth into high quality programming. **Extension'**s youth development staff provided 105 trainings (both online and in person) to over 3,356 youth workers and volunteers around the state of Minnesota.

- Extension's **Family Development** and **4-H Youth Development Centers** partnered to reach low-income youth, and their families, residing in West and South St. Paul. Family Development staff teach families to make nutrition and physical activity choices to improve their health and prevent obesity. The Youth Teaching Youth program utilizes a cross-age teaching model where high school students deliver lessons on healthy living topics to younger youth.

- The **Institute for Global Studie**s provided professional development opportunities for K–16 teachers on global and international topics. During the past academic year, the Institute worked with 122 schools in the state of Minnesota, facilitating workshops for 590 teachers and educators.

For a more about the societal issue areas the University addresses through research, teaching, and outreach, visit engagement.umn.edu.

Operational Excellence: Faculty and Staff

Employing world-class faculty and staff who are innovative, energetic, and dedicated to the highest standards of excellence.

Introduction

The University of Minnesota's outstanding faculty and staff are its most valuable asset and the key to achieving its mission of teaching, research, and community outreach. Providing world-class services for a world-class University depends on recruiting and retaining talent of the highest caliber.

With more than 26,000 employees throughout Minnesota, the University is the state's fifth-largest employer, contributing to an estimated $8.6 billion annual economic impact. Employees account for close to 62 percent of the University's total spending, making them by far the institution's most important resource. The University is committed to providing its faculty and staff with competitive compensation, benefits, development opportunities, and a supportive work environment to help them achieve the University's goals. This is reflected in the University's employee value proposition: "You're driven to change the world. We're here to support you."

A Highly Engaged Faculty and Staff

Creating a culture in which employees are fully engaged in their work benefits both the organization and the individual employee. University leaders see employee engagement as key to attracting and retaining top talent, while also aligning faculty and staff efforts in support of the University's mission. A highly engaged workplace fosters collaboration and innovation, removes barriers to employees completing their work, and supports resilience, efficiency, well-being, and high performance.

The University launched a research-based program in 2013 to measure and improve faculty and staff engagement. The program, now in its fourth year, includes an employee engagement survey administered every two years to over 18,000 faculty and staff on all five campuses. The survey measures two drivers of engagement: 1) commitment and dedication, and 2) effective environment. The results of each survey are shared with leaders and managers in every unit and department, and action plans are developed to improve areas of opportunity.

In the most recently completed employee engagement survey, 74 percent of staff and 62 percent of faculty participated, both new highs, with overall participation reaching 71.4 percent, close to the established target of 72 percent overall participation by 2021 **(Progress Card Measure)**. These engagement results have consistently shown very high levels of faculty and staff commitment and dedication that exceed the levels of many top-performing private companies worldwide. Employees continue to feel motivated to go beyond their day-to-day job responsibilities. Faculty and staff experience the University as a respectful and empowering environment, according to past survey results. They also report high levels of pride in working for the University.

To give units more time to take action in response to faculty and staff feedback, and to evaluate the survey administration process, the survey was not administered in 2016. During 2016–2017, engagement events were held across the system for hundreds of faculty, staff, supervisors, and academic and administrative leaders. Events included panel discussions, listening sessions, and supervisor trainings focused on best practices in employee engagement from peers within the University. The 2017 survey results will be rolled out systemwide in January 2018.

The University's engagement program is one of the most robust among higher education institutions in the United States, and is unique for its focus on taking action to advance collective priorities based on faculty and staff input, the high level of faculty involvement in advancing engagement, and the direct connection between employee engagement and leadership development efforts. The University's processes and results have been presented nationally and internationally to human resource academics and practitioners from other colleges and universities.

Faculty Satisfaction

In fall 2013 and winter 2014, the University participated in Harvard University's Collaborative on Academic Careers in Higher Education (COACHE) survey. The survey—which was administered on the Twin Cities campus and covered responses to questions about perceptions of tenure, institutional climate, culture and collegiality, institutional policies

and practices, and global satisfaction—has produced benchmark data that will inform faculty development work to foster a culture of support and success.

The results of the survey include comparisons with other peer universities and thus provide helpful data about faculty satisfaction levels at other institutions. The University compares favorably in a number of areas, including those associated with promotion and tenure and facilities. Moreover, overall satisfaction is high (69 percent of faculty responded they would select the University of Minnesota again, peers 67 percent); the University compares well as a place of work (72 percent, peers 65.2 percent) and in terms of satisfaction with benefits (83 percent, peers 69.3 percent). The survey also provides valuable and actionable information about areas in which the University can improve, such as departmental climate and engagement.

National and International Faculty Recognition

The University actively promotes distinguished faculty as they compete for national and international research and teaching awards. In cooperation with faculty members, previous award winners, and senior leadership, efforts are being made to:

- understand and communicate the nomination procedures for the most prestigious national awards;

- form partnerships with deans and chairs to identify strong candidates, as well as potential nominators;

- identify a broad spectrum of prestigious academic awards and the faculty who have received them;

- analyze career trajectories of faculty members who may be poised for major awards;

- actively support nominators and candidates during the application processes; and

- advocate appropriately on behalf of University nominees.

The research, teaching, and service of University faculty are celebrated through research professorships, institutional teaching awards, and recognition of various types of institutional service. Faculty also continue to garner considerable recognition for their scholarly pursuits **(Progress Card Measure)**.

Since 2012, faculty have received many major academic awards, including the prestigious American Academy of Arts and Sciences (nine), Guggenheim Fellowships (six), the National Academy of Medicine (formerly the Institute of Medicine, two), the National Academy of Engineering (five), the National Academy of Sciences (three), and the National Academy of Public Administration (three).

In 2016, the Thurber Prize for American Humor was awarded to Julie Schumacher for her book *Dear Committee Members: A Novel*. Charlampos Babis Kalodimos (biochemistry, molecular biology & biophysics) received the Raymond and Beverly Sackler International Prize in the Physical Sciences. In addition, Professors Robert Nichols and Nancy Luxon (political science) and Jean O'Brien (history and American Indian studies) received an award from the Andrew W. Mellon Foundation funding a cross-disciplinary Sawyer Seminar planned for 2017–18, titled *The Politics of Land: Colony, Property, Ecology*. Donald Truhlar (chemistry) received the 2016 Earle K. Plyler Prize for Molecular Spectroscopy & Dynamics, awarded by the American Physical Society. Allen S. Levine was named a Fellow of the American Society for Nutrition.

In 2017, Giancarlo Casale (history) received a New Directions Fellowship from the Andrew W. Mellon Foundation. David Tilman (ecology, evolution and behavior) was elected a foreign member of the Royal Society of London. Anand Gopinath (electrical and computer engineering) was awarded the 2017 Microwave Application Award of the IEEE Microwave Theory and Techniques Society. Deborah Swackhamer was awarded the Warren A. Hall medal by the Universities Council on Water Resources.

The National Medal for Museum and Library Service was awarded to the University Libraries and the School of Nursing received the 2017 Health Professions Higher Education Excellence in Diversity Award.

An Emphasis on Diversity and Inclusion

The University has made a strong commitment to building a workforce that reflects the diversity of its community. Increasing diversity is a top priority

of the University, and one explicitly outlined in the Twin Cities campus strategic plan. The University has created a number of initiatives to further that goal:

- **Interdepartmental collaboration:** The Office for Equity and Diversity (OED), the Office of Human Resources (OHR), and the Office of the Executive Vice President and Provost have been working together to build greater diversity among faculty and staff.

- **Increasing diversity of hiring pools:** OED and OHR are working closely with units and colleges to boost the diversity of hiring pools, especially for student-facing positions. OHR and OED are also leading a pilot program with University Services and the Office of Information Technology to diversify applicant pools for entry-level, mid-level, and leadership positions.

- **Implicit bias workshops:** OED conducts implicit bias workshops to help search committees understand inherent preconceptions and stereotypes and to prevent bias in the hiring process.

- **CLEAR initiative:** This partnership between the Executive Vice President and Provost's Office and OED seeks to attract more diverse pools of outstanding faculty. Initiatives include college- and department-specific recruiting guides, support for cluster hiring, reviewing compensation and hiring incentives to be competitive in various fields, and initiatives to strengthen department mentoring and other practices that help new faculty feel valued and supported.

- **Institute for Diversity, Equity, and Advocacy (IDEA):** IDEA is an intercollegiate effort to recruit and retain faculty of color on the Twin Cities campus by building scholarly collaborations, mentoring, and personal and professional connections across disciplines.

- **Support of diverse groups on campus:** OED and OHR financially support staff and faculty cultural affinity groups, such as the Black Faculty & Staff Association, Latino/a Faculty & Staff Association, University Women of Color, and Pride @ Work. The affinity groups help in networking and recruiting job candidates and in retaining top talent at the University.

- **Diversity recruiters:** OHR has hired three talent acquisition professionals who focus full time on finding and recruiting diverse candidates.

Leadership Training for Faculty and Staff

The Leadership and Talent Development (LTD) department in the Office of Human Resources delivers systemwide programs based on research and best practices that are tailored to meet the needs of University faculty, staff, and human resource professionals. LTD programs increase leadership capacity and skills critical to lead at the University and to meet University, college, and departmental goals.

A primary focus for the University is faculty leadership development. LTD's yearlong College Leads program, which helps prepare faculty for future leadership roles, is unique in the Big Ten.

Equally important is supervisory development. In the first half of 2017 alone, LTD's supervisory courses drew more than 2,100 participants to webinars on subjects such as how to get the highest performance from employees, how to give constructive feedback, and how to manage teams.

Programs include:

- "Leading on All Levels," an in-person cohort program for individual contributors.

- "Supervisory Essentials," an in-person and online program on key University supervisory policies.

- "Leadership Essentials," a four-day course for supervisors to strengthen core leadership skills.

- "Supervisory Development Course," an online and on-demand course for supervisors across the University that has an average webinar attendance of 525.

- "College Leads," a cohort program for faculty that has had 101 faculty members from six colleges and two system campuses participate thus far.

- "HR Leads+," a learning community to support the professional development of human resource professionals so they can strategically support their respective areas.

Additionally, OHR offers "HR at the U," an intensive training for human resource professionals across the University. Participants share best practices and engage in an interactive presentation and discussion with college and unit staff on a variety of human resource topics and issues.

Faculty and Academic Leadership Development

Professional development opportunities and support for faculty throughout their careers are essential to fostering a workforce that is engaged, connected, thriving, and achieving. To that end, the University provides a number of programs and initiatives designed to ensure faculty and instructional staff have opportunities to learn, grow, and advance.

The **Center for Educational Innovation** is a systemwide center that supports effective delivery of instruction across the spectrum from face-to-face to massively online (MOOCs) at all levels of instruction offered at the University. The Center has three high-level goals: 1) a coordinated service model to ensure that instructional support resources support institutional priorities; 2) alignment of academic technology investments and academic priorities; and 3) clarification of the University's strategy for curricular innovation. Center staff work with faculty and academic units to advance curricular innovation through centrally and locally funded initiatives, workshops, and consultations with faculty.

Department chairs and heads also play a critical role in establishing and nurturing a productive working environment for their faculty and staff. The University offers a comprehensive, full-year **Provost's Leadership Program for Academic Chairs and Heads**, specifically targeting new chairs and heads and focused on mentoring faculty and staff, handling student issues, and addressing diversity and faculty life-course issues. **"Talking Heads"** is a leadership development initiative in which chairs and heads meet regularly to share best practices and learn about key leadership challenges across the University.

The University also holds workshops for chairs and heads on a wide variety of topics, including promotion and tenure, post-tenure review, and annual reviews of faculty to ensure that these leaders are knowledgeable about policies and procedures.

In addition, the University has greatly expanded its participation in the **Academic Leadership Program**, sponsored by the Big Ten Academic Alliance. Faculty participants in this program meet with a wide range of University leaders to discuss paths to leadership, roles of administrative offices, and decision-making. These meetings supplement three weekend seminars. The **Women's Faculty Cabinet** provides leadership to improve and enrich the academic and professional environments for women faculty on the Twin Cities campus. The cabinet recommends and responds to University policies affecting women faculty and promotes the University's efforts in recruiting, mentoring, and retaining women faculty.

An Employer of Choice

The University is committed to attracting and retaining talented faculty and staff with a competitive and comprehensive compensation package, which includes salary, medical and dental benefits, disability and life insurance, flexible spending accounts, long-term care insurance, and retirement benefits; with challenging and rewarding work; with clear paths for advancement; and with a culture of health, wellness, happiness, and support.

The University strives to maintain a compensation package that is competitive with peers and labor markets, as directed by the Board of Regents. At the same time, compensation must be balanced with the University's overall need for cost containment and efficiency. The portion of the University's total budget spent on compensation has remained relatively stable (roughly 61 to 62 percent) since 2009.

Comprehensive, Affordable, and Competitive Health Benefits

The University's self-insured health program, UPlan, provides a full complement of medical and dental benefits, along with short-term and long-term disability coverage.

The University aggressively manages its health benefits costs by:

- self-insuring its UPlan medical and dental programs;
- negotiating with vendors for cost savings and establishing performance guarantees;

- managing pharmacy costs through a number of factors including encouraging increased generic-drug usage;
- introducing restricted-network plan options such as using care system networks as base plans and promoting its Accountable Care Organization—a low-cost, narrow-network plan emphasizing outcomes rather than fees for service; and
- promoting an award-winning wellbeing program.

Because the University has effectively managed medical costs, employee cost has remained relatively stable for four straight years. Medical and dental premiums will not increase in 2018—a significant achievement considering that the median increase planned for large employers in the Minnesota Health Action Group is five percent.

Wellbeing Program

For more than ten years, the University has offered an extensive Wellness Program to increase the health, fitness, and well-being of its faculty and staff on all campuses. The program currently includes health assessments, fitness, health coaching, and programs to manage weight, disease, and stress. These have been very well received by employees, and the University is continually looking for ways to enhance its offerings.

In 2017, the Wellness Program was renamed the Wellbeing Program, a name change that reflects a goal to provide employees with more comprehensive options that address not just physical health but emotional, financial, and social health. The University has also selected RedBrick Health—a vendor with a strong reputation in the well-being industry—to administrate its Wellbeing Program.

By participating in the program this coming year, employees can earn points that translate into $500 to $750 in savings on their insurance premiums.

This past year, the program achieved these performance milestones:

- 65 percent of University employees took part in the program; 41 percent completed it.
- 41 percent of participants increased their activities over the previous year.
- 92 percent were satisfied with their health coaches.

- Employees who participated in phone health coaching saw their health risks shrink by 10.3 percent in the last program year—almost four times the rate of those who didn't have a coach.
- The program won a Hennepin County Wellness by Design Green Award for its commitment to minimizing impact on the environment.

This program also offers a significant return on investment. The average number of health risks for University employees decreased 16.6 percent in the last eleven years, according to a report from the University's wellness vendor. The University has seen a decrease in annual healthcare costs of $280 per repeat program participant and $825 per employee who participated in health coaching.

The University's program outperforms other universities and large employers. Benchmark research conducted by the Health Enhancement Research Organization gave the University a score of 126 compared to an average score of 107 for other universities and 104 for employers with more than 5,000 employees. The criteria for scoring included strategic planning, organizational support, programs, participation strategies, and measurement and evaluation.

Community Fund Drive

University employees believe in giving back to their community. The annual Community Fund Drive, an employee-run campaign to raise funds for local nonprofit organizations, has been a University tradition since 1931. In 2017, Twin Cities campus employees raised $1.4 million through the drive. In the last 20 years, the University has raised more than $20 million for worthy causes in Minnesota. The campaign works with seven nonprofit federations representing nearly 500 organizations: the Greater Twin Cities United Way, Community Health Charities of Minnesota, Open Your Heart to the Hungry and Homeless, United Negro College Fund, Minnesota Environmental Fund, Community Shares Minnesota, and the University of Minnesota Foundation. Giving back is itself a component of well-being. Recent research has found that the simple act of donating money or volunteering enhances personal well-being and can lead to improved psychological and physical health.

Operational Excellence: Organization

Stewarding an outstanding organization that is responsible with resources, dedicated to measuring and improving performance, and aligned to support the University's core missions of teaching, research, and outreach.

A Productive, Efficient Organization

The University's mission is delivered through its people and its space. After people, the construction, operation, and maintenance of the University's campuses represents the next largest share of University spending. Exceptional faculty and staff are free to do their best work when the campus is safe, the facilities are optimized, and operational efficiencies maximize resources available for direct mission. Stewarding the investments made by generations of students and their families—as well as state lawmakers, citizens, and donors—is a responsibility that University leaders take very seriously.

Finance and Operations Restructuring

In 2016, the University aligned the four major operational units (Finance, Information Technology, Human Resources, and University Services) under a new position of Senior Vice President for Finance and Operations (SVP). As the University's chief financial officer and chief operating officer, the SVP leads the strategic financial and operational management of the institution. This meets the University's desire to have an effective, efficient, and fully integrated administrative infrastructure in support of the institution's academic, research, and outreach mission. Further alignment and integration of these units is being evaluated and planned for in the future.

Lower Debt Financing Costs

The University has successfully reduced the cost of debt financing in several ways. Recently, the University refinanced $306.2 million of existing tax-exempt and taxable debt to take advantage of lower interest rates. The University will spend $28.6 million less than originally anticipated over the remaining life of the refinanced bonds, which translates to lower total costs to the University. The University also issued an additional $117.1 million of new tax-exempt debt. The weighted average interest rate obtained for the refinanced and new debt was 2.754 percent.

Additionally, the University is expanding its short-term borrowing capabilities by increasing the current commercial paper (CP) program to a maximum size of $400 million. This will allow the University to

borrow short-term funds for capital projects during the construction period at very low short-term CP rates, which will lower future capital financing costs on capital projects. And because the University will be able to use CP rather than spend University cash during construction, the University will also marginally increase investment earnings due to the larger cash balances available for investment.

Cost Savings on Property Insurance

The University rebid its property insurance program, which for many years was under the Midwest Higher Education Compact's Master Property Program, to determine if commercially purchased insurance would provide savings or other advantages to the University. It was determined that commercially purchased insurance would be in the University's best interest, and the change went into effect for fiscal year 2017. Highlights of the new insurance program:

- Annual premium savings for fiscal year 2017 of $800,000 to $1,100,000, compared to MHEC's announced premiums for fiscal year 2017.

- A guarantee of flat premium rates for the three-year contract (rates are measured in cost-per-$100 of insured property value). Premiums will only be adjusted for changes in property values.

- An additional five percent discount was guaranteed for fiscal year 2018 premiums, as an incentive for signing the fiscal year 2017 contract prior to the start of the year. This credit should offset much of next year's expected valuation increases.

- An increase in overall property coverage, from $1.75 billion to $2 billion, within this premium structure.

- A more advantageous deductible structure, which should save the University several hundred thousand dollars in years that have adverse claims experience.

Bond Rating

In connection with the September 2017 bond issuance, the University received ratings **(Progress Card Measure)** from Moody's Investors Service (Moody's) and S&P Global Services (S&P), as follows:

- Moody's—Aa1, with stable outlook
  - The Aa1 rating reflects the University's

excellent strategic positioning reflecting in strong student and research market positions and ample balance sheet reserves. The stable rating outlook reflects continued favorable student demand and research trends, growing tuition revenue, stable to improving operating cash flow and debt service coverage despite additional debt plans.

- S&P—AA, with stable outlook

  ◦ The AA rating reflects their view of the University's 1) position as Minnesota's flagship research university and land-grant institution; 2) stable enrollment with rising freshman applicants and matriculants; 3) improved financial performance on an adjusted full-accrual basis; 4) manageable pro forma maximum annual debt service burden; and 5) favorable philanthropic support.

  ◦ The stable outlook reflects their continued view that over the next two years, enrollment and demand trends will remain firm and its financial operating performance on an adjusted full-accrual basis will remain positive and become more robust.

Reallocation of Administrative Costs

The University internally reallocates resources to fund investments in higher priorities through its annual budgeting process. As a part of this work, President Kaler announced a goal to reallocate $90 million in administrative expenses over six years beginning in fiscal year 2014 **(Progress Card Measure)**. To make the goal measurable, the University became the first among its peer research universities to track job categories and other operating costs to establish a measurable definition of annual "administrative costs." As measured through the Cost Benchmarking Analysis, administrative costs consist of the annual combined costs for Leadership and Oversight; and Mission Support (staff and operating costs) and Facilities. From fiscal year 2014 through fiscal year 2018, the University reallocated $79.1 million in administrative expenses (implemented and approved reallocations). To reach the $90 million goal, the University plans to reallocate the final $10.9 million in fiscal year 2019. Because of the University's work to reduce costs and reinvest those dollars internally, the University has avoided or reduced costs to students

and taxpayers. Over the last six years, tuition at the Twin Cities campus for Minnesota residents went up an annual average of just 1.2 percent. For the four campuses in greater Minnesota, the annual average tuition increase was just 0.5 percent.

Enhanced Tools for Financial Analysis and Monitoring

Over the past several years, the University finance unit has developed several enhanced tools for analysis and monitoring of financial activity.

Cost Benchmarking

An analysis that categorizes total University expenditures each fiscal year into one of four groups: Direct Mission, Student Aid, Mission Support & Facilities, and Leadership and Oversight. This analysis identifies personnel and non-personnel spending in each of these categories at the total University level and at the individual unit level, providing an understanding of how spending changes over time and the different spending profiles of the units. This analysis is also used to define and understand what is driving "administrative costs" (broadly defined as anything in the Mission Support & Facilities and the Leadership & Oversight categories) and to monitor this spending as a percent of the total over time. The management goal is to keep administrative costs down as a percent of the total and to focus new spending as much as possible in the direct mission category **(Progress Card Measure)**.

Cost of Mission

An analysis that allocates 100 percent of University expenditures into the mission categories of Instruction, Research, and Public Service (auxiliary and student aid expenditures are identified separately) and then identifies which revenue sources support each of those missions. This is done at the all-University level and the unit level to provide a different perspective on the budget. Secondary or more specific levels of analysis flowing from this include the calculation of what each Twin Cites college or system campus is spending on instruction, what types of costs are driving that level of spending (which are unique to each college or campus), and what revenue sources are available to the different colleges and campuses to support instruction, research, and public service work.

Structural Imbalance Review

A new tool that the University is implementing to help predict and track structural imbalances in unit budgets. As part of the regular budget process, each unit's balances and annual revenues and expenditures will be reviewed in a new way that helps identify situations in which recurring revenues are less than recurring expenditures. For units appearing to have such imbalances, staff will focus on identifying the unit's specific budget challenges and solutions.

Enterprise Asset Management

Maintaining and supporting the University's physical assets **(Progress Card Measure)** is the second largest cost (after compensation). Good information and workflow management are key to the optimal management of space allocation and utilization, capital planning and project management, leases and real estate, maintenance, and custodial work. To meet the continuing challenge of tighter budgets, caring for more complex facilities, and integrating information for use by the greater University community, the University is implementing an Enterprise Asset Management system. The new system will replace dozens of unique and disconnected systems to better provide integrated and complete data to support meaningful decision-making about the lifecycle of physical assets (land, space, facilities, and equipment). The system will also provide the platform to manage the physical assets of the University in a way that supports excellence in learning, discovery, and outreach and a positive campus experience for the next ten years.

Diversifying the Twin Cities Campus Energy Portfolio

In fiscal year 2017, the Twin Cities campus entered long-term contracts for renewable energy resources. These contracts advance the University's goal of reducing greenhouse gas emissions by 50 percent by 2020 to mitigate climate change **(Progress Card Measure)**. By producing its own energy at the new combined heating and power plant, purchasing solar power from community solar gardens, and signing on for the utility company's renewable energy program, the Twin Cities campus will have transitioned from 93 percent utility-provided power in 2013 to just 36 percent in 2018. Together, this diversification reduces emissions by thousands of metric tons and will

materially reduce increases in operating costs into the future. It also diversifies the University's electric utility portfolio, which reduces institutional exposure to financial risk and volatility in the utility sector.

Meeting Student Demand for Housing

The Twin Cities campus undergraduate enrollment strategy calls for growth to between 31,000 and 32,000 students, with 90 percent of first-year students, 25 percent of second-year students, and 10 percent of incoming transfer students to be living in University-managed housing. To support this strategy, the University has undertaken a major project to provide sufficient residence hall capacity for all first-year students who apply by the May 1 deadline. One component, the complete renovation of historic Pioneer Hall, is under way. In addition to addressing the largest facility need in the University's housing portfolio, the project will also raise the standard for student experience and provide for operational efficiencies by consolidating dining on the Superblock. A second component involves master leasing privately built apartment facilities in desirable locations. New beds at both Keeler Apartments (across from the 17th Avenue residence hall and dining center) and Radius on 15th (across from the under-construction Athletes' Village) entered University inventory this fall. These proved popular with students, as indicated by occupancy near capacity—only 13 beds vacant out of approximately 930 available. These facilities also enabled Housing and Residential Life to partner with Intercollegiate Athletics to ensure all first-year student-athletes live in University housing that supports their academic and athletic success.

Advancements in Information Technology

Academic Technology

In the past year, there has been a transition from the University's legacy course management system (Moodle) to Canvas, a state-of-the-art platform, enabling instructors greater access to licensed, library-provided, open education resource, and self-created course content and analytics. All of this contributes to the institution's understanding of how students learn in a digital classroom. The transition to Canvas is part of the University's membership in the Unizin consortium, a group of universities, including eight Big Ten institutions, that collaborate and share

resources to adapt to the ever-changing digital learning landscape and incorporate new education technologies into their existing teaching and learning strategies.

Technology Purchases

The Office of Information Technology (OIT) leads a cross-functional review group that provides technology staff assistance to the University's distributed competitive purchasing process. This review ensures that needs are met and that solutions are interoperable with the University's ecosystem of information technology tools and infrastructure. In addition, as the group has a broad understanding of IT tools and infrastructure already available within the University, it helps units to avoid unnecessary duplication in IT purchases.

Two-Factor Authentication

Over the past year, OIT has offered the option of two-factor authentication to faculty, staff, and students. The University's security profile has been improved and enhanced by the use of a higher level of authentication for direct deposit, W2, and other information that could result in identity theft.

Network and Cybersecurity Upgrade

An upgrade and modernization of the University's legacy network (which was last upgraded in 2004) and cybersecurity tools is under way, which will increase speed and capacity ten-fold, and employ threat-monitoring, log management, denial of service, and firewall technologies.

APPENDIX A:
KEY DATA SOURCES
AND WEB LINKS

Key Data Sources

Association of American Universities Data Exchange	aaude.org
Association of American Universities	www.aau.edu
Association of Research Libraries	www.arl.org
Institute of International Education	www.iie.org
National Center for Education Statistics	nces.ed.gov/ipeds
National Institutes of Health	www.nih.gov
National Research Council	www.nationalacademies.org/nrc
National Science Foundation	www.nsf.gov

University of Minnesota Campuses and Strategic Planning

Systemwide Strategic Vision	president.umn.edu/strategic-vision/system-wide
Twin Cities Campus	twin-cities.umn.edu
Strategic Plan	strategic-planning.umn.edu
Duluth Campus	d.umn.edu
Strategic Plan	d.umn.edu/strategic-planning
Morris Campus	morris.umn.edu
Strategic Plan	digitalcommons.morris.umn.edu/camp_doc/11
Crookston Campus	crk.umn.edu
Strategic Plan	crk.umn.edu/strategic-planning
Rochester Campus	r.umn.edu

University of Minnesota Administrative and Academic Units

Academic Health Center	health.umn.edu
Board of Regents	regents.umn.edu
Controller's Office	controller.umn.edu
Global Programs & Strategy Alliance	global.umn.edu
Graduate School	grad.umn.edu
Office for Equity and Diversity	diversity.umn.edu
Office for Public Engagement	engagement.umn.edu

University of Minnesota Links, Continued

Office for Student Affairs	osa.umn.edu
Office of Budget and Finance	finance.umn.edu
Office of the Executive Vice President and Provost	provost.umn.edu
Office of Institutional Research	oir.umn.edu
Office of the President	president.umn.edu
Office of University Relations	university-relations.umn.edu
Office of Vice President for Research	research.umn.edu
Research and Outreach Centers	
North Central Center at Grand Rapids	ncroc.cfans.umn.edu
Northwest Center at Crookston	nwroc.umn.edu
Southern Center at Waseca	sroc.cfans.umn.edu
Southwest Center at Lamberton	swroc.cfans.umn.edu
UMore Park at Rosemount	www.umorepark.umn.edu
Robert J. Jones Urban Research and Outreach-Engagement Center	uroc.umn.edu
West Central Center at Morris	wcroc.cfans.umn.edu
University Libraries	lib.umn.edu
University of Minnesota Alumni Association	umnalumni.org
University of Minnesota Extension	extension.umn.edu
University of Minnesota Foundation	give.umn.edu

APPENDIX B: BOARD OF REGENTS

Honorable David J. McMillan, Chair

Congressional District 8
Elected in 2011, 2017
Term expires in 2023

Honorable Kendall J. Powell, Vice Chair

At-Large Representative
Elected in 2017
Term expires in 2023

Honorable Thomas J. Anderson

Congressional District 7
Elected in 2015
Term expires in 2021

Honorable Richard B. Beeson

Congressional District 4
Elected in 2009, 2015
Term expires in 2021

Honorable Linda A. Cohen

At-Large Representative
Elected in 2007, 2013
Term expires in 2019

Honorable Michael D. Hsu

Congressional District 6
Elected in 2015
Term expires in 2021

Honorable Dean E. Johnson

At-Large Representative
Elected in 2007, 2013
Term expires in 2019

Honorable Peggy E. Lucas

Congressional District 5
Elected in 2013
Term expires in 2019

Honorable Abdul M. Omari

At-Large Representative
Elected in 2013
Term expires in 2019

Honorable Darrin M. Rosha

Congressional District 3
Elected in 1989, 2015, 2017
Term expires in 2023

Honorable Patricia S. Simmons

Congressional District 1
Elected in 2003, 2009, 2015
Term expires in 2021

Honorable Steven A. Sviggum

Congressional District 2
Elected in 2011, 2017
Term expires in 2023

Brian Steeves

Executive Director and Corporate Secretary
600 McNamara Alumni Center
200 Oak Street S.E.
University of Minnesota
Minneapolis, MN 55455

APPENDIX C:
Senior Leadership

Eric W. Kaler	President
Karen Hanson	Executive Vice President and Provost
Mike Berthelsen	Vice President for University Services
Kathryn Brown	Vice President for Human Resources
Brian Burnett	Senior Vice President for Finance and Operations
Mark Coyle	Athletics Director
Michael Goh	Interim Vice President for Equity and Diversity
Bernard Gulachek	Vice President and Chief Information Officer
Gail Klatt	Associate Vice President for Internal Audits
Matt Kramer	Vice President for University Relations
Boyd Kumher	Chief Compliance Officer
Allen Levine	Vice President for Research
Lisa Lewis	President and CEO of the University of Minnesota Alumni Association
Doug Peterson	General Counsel
Kathleen Schmidlkofer	President and CEO of the University of Minnesota Foundation
Jon Steadland	Chief of Staff to the President
Jakub Tolar	Dean of Medical School and Interim Vice President for Health Sciences
Michelle Behr	Chancellor, University of Minnesota Morris
Lendley Black	Chancellor, University of Minnesota Duluth
Lori J. Carrell	Interim Chancellor, University of Minnesota Rochester
Mary Holz-Clause	Chancellor, University of Minnesota Crookston

APPENDIX D:
Tables and Figures

5 Research and Discovery

APPENDIX E: Progress Card Measures Definitions

GOLD MEASURES

Measure

4- and 6-year graduation rates, by campus

Definition/Discussion

The percentage of first-time, full-time new entering freshmen that graduated within four or six years. The University counts as a successful completion a student that first enrolls at any U of M campus and graduates from any U of M campus in the given time frame. (For federally reported measures, a student must begin and graduate from the same campus to be counted as a successful completion for that institution.)

The four-year graduation rates reported in 2021 will be based on the 2017 entering cohorts, while the six-year graduation rates in 2021 will be based on the 2015 entering cohorts. The provost on the Twin Cities campus and chancellors on the system campuses were asked to set reasonable stretch goals for their individual campuses given incoming student characteristics, availability of degree programs, and peer comparisons.

Measure

4-year graduation rates of Pell-awarded students (system)

Definition/Discussion

The percentage of first-time, full-time new entering freshmen who received federal Pell grants their first year and graduated within four years.

This is a system-level measure of undergraduates at all campuses. Similar to overall four-year graduation rates, this measure takes an incoming cohort of students receiving Pell grants and examines their graduation levels four years later. Ideally financial need would not be a barrier to graduation, yet we know that Pell eligibility can also correlate with other graduation risk factors such as being a first-generation student.

The ultimate goal for these students would be to bring their graduation rate up to that of the student body as a whole. Although this may be unrealistic in a shorter time frame, the proposed goal grows the graduation rate of Pell-awarded students at twice the rate of the proposed growth rate for the student body overall.

Measure

Twin Cities entering freshman average ACT

Definition/Discussion

The composite score on the ACT exam for entering students. The ACT uses a 36-point scale on four multiple-choice testing areas: Math, English, Science, and Reading.

A long-time measure of the academic preparedness of the incoming class, the average ACT score of the freshman class has been rising steadily, from 24.8 in 2003 to 28.4 in 2017. However, given state demographics, natural limits, and the desire to meet multiple goals for the incoming class (including access for students across Minnesota, students of color, and students from diverse socio-economic backgrounds), it is unlikely that the University will see or desire a significant increase in this measure in the near future.

The University has a goal of exceeding an average ACT of 28.0 while continuing to monitor student access to a University education.

Measure

Institutional gift aid (system)

Definition/Discussion

The total amount of student gift aid provided by the University across all campuses. Gift aid includes Promise scholarships, admissions scholarships, collegiate and department scholarships, athletic scholarships, Regents scholarships, and graduate assistant tuition benefits. This measure does not include state or federal grants, student employment, or loans.

While there is no "correct" level of institutional gift aid, the University has a long-standing commitment to making education as affordable as possible for students, and increasing gift aid through fundraising and institutional resources is an important strategy in meeting that commitment. The goal represents a three-percent annual increase in institutional gift aid through 2021.

Measure

R&D expenditures (Twin Cities)

Definition/Discussion

The total dollar amount of research and development expenditures defined and collected annually by the National Science Foundation through the Higher Education Research & Development Survey. All institutions expending at least $150,000 on R&D in the fiscal year are surveyed, and the data is comprehensive of all sources of R&D expenditures.

Though this measure includes the many sources of an institution's R&D funding, the largest source continues to be federally sponsored funding. The federal investment in sponsored research projects has been flat for several years and is predicted to remain so for the foreseeable future. Despite this, the Office of the Vice President for Research has proposed a goal that would increase R&D expenditures by nearly five percent over the next few years.

Measure

Medical School ranking (Twin Cities/Duluth)

Definition/Discussion

An annual ranking based on the total dollar amount of grants from the National Institutes of Health to medical schools as analyzed by the Blue Ridge Institute for Medical Research.

Medical school rankings have traditionally been based on National Institutes of Health (NIH) awards to U.S. medical schools in a given year. In 2016, the University of Minnesota's medical school received $132 million in NIH awards and ranked 34th in the country. In 2016 the University of California – San Francisco Medical Center was the top-ranked school in the country, with $519 million in NIH awards. Minnesota ranked 4th in the Big Ten, behind Michigan (11th), Northwestern (17th), and Wisconsin (25th). The Mayo Clinic in Rochester was 19th in the country in NIH funding in 2016.

Former Senior Vice President and Dean of the Medical School Brooks Jackson stated the desire to return to being a "Top 20" medical school. The 20th-ranked school in 2016, the Baylor College of Medicine, had $210 million in NIH awards, so achieving that ranking is an ambitious goal over a relatively short time period.

Measure
Faculty awards (Twin Cities)

Definition/Discussion
The number of prestigious national awards received by faculty in the arts, humanities, sciences, engineering, and health fields and the institutional ranking based on those awards as measured annually by the Center for Measuring University Performance (MUP) at Arizona State University.

The MUP analyzes and ranks research universities in nine different areas, including the number of prestigious national faculty awards. The 24 awards included in their analysis range from the Guggenheim Fellowships, MacArthur Foundation Fellowships, and National Humanities Center Fellowships to the NSF CAREER awards.

This measure can be quite variable from year to year, but the University desires to maintain its place among the top 10 public research universities with regard to prestigious national awards. The ranking goal requires approximately 25-30 of these faculty awards annually, and the numeric goal of 35 or more faculty with annual awards aligns with the strategic emphasis on faculty excellence.

Measure
Participation in the employee engagement survey (system)

Definition/Discussion
The system-level survey response rate for faculty and staff on the biennial Employee Engagement survey. Though employee engagement is a nebulous concept to attempt to measure at the all-University level, a private-sector standard is to measure participation in such a survey so that local-level units can receive as much rich and comprehensive data as possible. The University measures faculty and staff participation in this survey.

Although employee survey participation is already high compared to other higher education institutions, the University strives to increase participation by 2 percent with each administration of the survey.

Measure
Operational excellence (system)

Definition/Discussion
The President has set as a goal a minimum of $90M in cost savings over a six-year period (FY14-FY19). The cost savings are identified annually in the budget process and must come from categories not directly related to mission activities of instruction, research, or public service.

The goal for this measure is $90M by FY19.

MAROON MEASURES

Measure

Twin Cities transfer student 3-year graduation rate

Definition/Discussion

The percentage of students who previously attended a postsecondary institution outside the University system and graduated within three years of transferring to the Twin Cities campus.

Though not generally reported on a nationwide basis, the ability to graduate transfer students is an equally important and worthy goal to traditional freshman graduation rates. There is more variability in these cohorts, with some students entering with 30 credits or less, while a few bring in as many as 90 credits. The three-year graduation rate for transfer students would be comparable to the five-year traditional rate, understanding the additional variability among these students. Much like goals for increasing the traditional four- and six-year rates, the University believes it should also increase these graduation rates.

The University has a goal of exceeding a 65 percent graduation rate for transfer students.

Measure

Graduate and professional degrees awarded (Twin Cities/Duluth)

Definition/Discussion

The total number of master's, doctoral, and professional degrees awarded annually across the University.

The University is the primary generator of graduate and professional degree recipients for the State of Minnesota. The ongoing need for an educated workforce, both throughout the general population but also at the highest levels of education, requires the University to maintain its priorities in this area.

Graduate enrollments have predictably been falling as the economy has improved. However, the University has been opening new programs at the professional master's level, filling demand for new emerging areas in technology, business intelligence, international law, and other fields. The University will need new programs such as these to maintain current degree completions above 5,250 per year.

Measure

Median undergraduate debt at graduation (system)

Definition/Discussion

The median amount of student debt accumulated by undergraduates with student debt at the time of their graduation.

This measure can be heavily influenced by many factors, only some of which the University controls. Along with tuition and institutional aid policies, other factors that influence student debt include federal and state financial aid policies, program choice and time to degree, and student and parent behaviors and choices. Because this measure is relevant to all students in the University of Minnesota system, we monitor this at the all-University level.

The University proposes a goal of limiting increases in the median amount of cumulative debt for undergraduates with debt to no greater than the consumer price index, with adjustments according to state and federal policy changes. Although a wide variety of factors will influence this measure, it is an important priority for the Board of Regents and administration to continue to monitor.

Measure

Students of color with a favorable sense of belonging on campus (Twin Cities)

Definition/Discussion

Percentage of undergraduate students of color responding "agree" or "strongly agree" to the statement "I feel that I belong at this campus." Data is collected as part of the Student Experience in the Research University (SERU) survey, administered biennially to all undergraduates on the Twin Cities campus.

The University's goal is to improve the campus climate and sense of campus belonging for all students. The goal for this measure is to have the student of color favorable sense of belonging metric match the aggregate response of international students, white students, and students of unknown race/ethnicity.

Measure

Percent of new entering (and all currently enrolled undergraduate) students who are Minnesota high school graduates (system)

Definition

Percent of the University's new entering students and the percent of all enrolled undergraduate students who identified Minnesota as their home location prior to enrollment. The source for this measure is the University's enrollment statistics. This measure analyzes fall enrollments to help assess access for Minnesota students throughout their academic careers. The percent of Minnesota high school students among both new entering and all undergraduate students throughout the University systemwide has remained consistently high.

The goal for this measure is to maintain the historical access of Minnesota students to the University of Minnesota.

Measure

Percent of recent Minnesota high school graduates choosing a Minnesota college who enroll at the University (system)

Definition

The percent of Minnesota public high school students who graduate in the spring and enroll at a Minnesota postsecondary institution in the fall of that year who choose the University of Minnesota. The source for this measure is the Minnesota Office of Higher Education's Basic Data Series.

This measure focuses service to Minnesota students to those recent high school graduates who choose to continue their education in Minnesota. The University has traditionally been an attractive choice for Minnesota students seeking a bachelor's degree and has increased its share of the Minnesota college-bound students who graduate from a Minnesota high school. Approximately one-fifth of Minnesota high school graduates choose a postsecondary institution outside of Minnesota and one-third do not attend a postsecondary institution the following fall after graduation. Those students are not included in this measure.

The goal for this measure is to maintain the historical access of Minnesota high school graduates to the University of Minnesota.

Measure

Enrollment in health science specialties with shortages (Nursing, Pharmacy, Dentistry) (Twin Cities/Duluth/Rochester)

Definition/Discussion

The annual fall enrollments in health sciences fields identified by the Minnesota Department of Employment and Economic Development's Labor Market Information Office as leading to Occupations in Demand in Minnesota.

The University has a crucial role in meeting the need for growing the healthcare workforce across the state. In particular, the University recognizes its ability to meet the needs for healthcare professionals in high demand throughout the state, and has prioritized enrollments at all educational levels in the fields of nursing, dentistry, and pharmacy. The University proposes to increase enrollments to greater than 2,100 students in these fields.

Measure

Total enrollment in the AHC schools and Center for Allied Health (Twin Cities/Duluth/Rochester)

Definition/Discussion

The total combined fall enrollments in the Academic Health Center schools of Dentistry, Medicine, Nursing, Pharmacy, Public Health, and Veterinary Medicine, and the Center for Allied Health. This measure includes enrollments on the Twin Cities, Duluth, and Rochester campuses.

In keeping with the goals of the AHC's strategic plans and recommendations from the Governor's blue-ribbon committee on the medical school, expanding access to health education across the AHC is a key component in returning to national leadership in healthcare training, research, and care. In addition to the state-level demand for healthcare workers identified in the preceding measure, expanding enrollments across the AHC addresses the growing needs for doctors and other health professionals across a wide variety of in-demand specialties at the state and national levels. The University proposes to increase enrollments to above 6,350 students, an increase of over 156 students.

Measure

National public research university ranking (Twin Cities)

Definition/Discussion

The annual ranking by the National Science Foundation of public higher education institutions according to total annual research and development expenditures.

Reported annually by the Vice President for Research, the public research university rankings are compiled from the Higher Education Research & Development Survey completed by all institutions with at least $150,000 in dedicated R&D expenditures in a fiscal year. While the total R&D expenditures metric is our primary measure of research productivity, monitoring the ranking allows the administration and Board to evaluate the relative competitiveness of the University.

The University continues be among the top 10 public institutions on this measure and strives to stay at this high level understanding that there will be year-to-year variance.

Measure

Minnesota intellectual property agreements (system)

Definition/Discussion

The total number of intellectual property agreements executed annually through the MN-IP Program.

Over the past few years, the University has prioritized making it easier for businesses to partner with the University to transform discoveries into innovative solutions. MN-IP is designed to improve access to University-

developed technology while reducing the risk and cost associated with licensing intellectual property (IP) and sponsoring research. Programs to help both create and license University IP have been developed, and increasing the number of agreements is an important policy direction.

With limited trend data for this emerging program, it is unclear what the optimal rate for increasing the annual number of MN-IP agreements should be. Currently, the University has a goal of increasing agreements 10 percent year-over-year, with updated information provided by the Vice President for Research as it becomes available.

Measure

Public service expenditures (system)

Definition/Discussion

The University's total annual expenditures on public service. The University records its mission-related expenditures into instruction, research, and public service categories.

There are no agreed-upon comprehensive measures of public service and outreach in higher education, in part because public service and outreach informs much of the work of a land-grant institution. The wide range of activities and expenditures included broadly under public service and outreach makes it difficult to identify a single measure of progress. While exploring and defining a more comprehensive measure, the University proposes to continue to monitor our overall expenditures.

The University has had a staunch commitment to public service and outreach as a core mission function and plans to keep its expenditures above $245 million annually.

Measure

Average citations per faculty member (Twin Cities)

Definition/Discussion

The number of times a recent faculty publication is cited by scholars during a five-year period as measured by Academic Analytics, a data analytics source provider. The total number of citations is averaged across all faculty at the institution and pertains to works published within that same five-year period.

There are several different services for faculty citation counts, none of which are comprehensive. The University discontinued its contract in 2017 with Academic Analytics and is currently studying other data options, including potential metrics using SciVal, a bibliometric data source currently under review for use across campus, including by the University Libraries and Faculty and Academic Affairs, through a one-year pilot study. The University proposes further discussion of this measure over the coming months.

The specific goal of maintaining an average citation count per faculty above 125 annually may be updated with different data sources, but the goal's emphasis on faculty scholarship and excellence will continue.

Measure

National scholarship awards to students (system)

Definition/Discussion

The number of prestigious national awards annually received by University undergraduates. The seven leading student awards included in this measure are the Beinecke, Churchill, Truman, Rhodes, Fulbright, Goldwater, and Astronaut awards.

These awards represent a wide variety of fields and expertise and are some of the most prestigious student awards

in the world. Any given year can be quite variable in the number of awards our students apply for and receive; additionally, many of these leading awards have limitations based on location of the students' institution or home residence.

As such, the measure examines awards in five-year blocks (2015–20) of awards, with a goal of exceeding the previous half-decade's achievement. The Board will also receive annual progress updates on this measure.

Measure

Spending on leadership and oversight vs. mission and mission support (system)

Definition/Discussion

The percentage of University expenditures on leadership and oversight as determined by the University's internal cost benchmarking study, which has divided all University expenditures into mission, mission-support, and leadership and oversight categories since 2012.

One purpose of this study is to ensure that the University continues to make investments in mission-related activities, while limiting new investment where possible in oversight and overhead. The University now has three years of data, and has shown the ability to contain leadership and administrative costs. However, monitoring levels vs. setting an actual target is probably prudent, as many variables go into this metric.

The University proposes to maintain and continue to try to decrease the percentage of spending on leadership and oversight, understanding that there is a natural floor for this percentage of expenditures.

Measure

University square feet considered in "poor" or "critical" condition (system)

Definition/Discussion

The number of gross square feet of University facilities systemwide rated through the Facilities Condition Assessment as being in "poor" or "critical" condition.

The University has for a number of years completed a comprehensive facility condition assessment (FCA) on many of its buildings. Beginning in 2013 this was extended to all buildings systemwide with an enhanced methodology.

The University proposes a goal of tracking the total number of gross square feet considered either "poor" or "critical" by this methodology and decreasing the total square footage in these categories over time.

Measure

Sustainability – metric tons of greenhouse gasses (system)

Definition/Discussion

The number of metrics tons of greenhouse gasses produced annually across the University system.

The Board of Regents policy on Sustainability and Energy Efficiency directs campus operations to reduce emissions to the environment. In addition, the institution has committed to regular greenhouse gas inventories as part of the American College and University Presidents' Climate Commitment, and the Minnesota State Legislature has also established emission reduction requirements for buildings constructed with state funds.

In 2008, when we first began measuring greenhouse gas emissions, the University set as a goal a 50 percent reduction in emissions by 2021. With changes to the emission calculation methodology in 2016 to more accurately

reflect trend data in purchased electricity and campus steam plants, the base level of 703,311 metric tons yields a 50 percent reduction target of 351,656 metric tons by 2021.

Measure

University credit rating (system)

Definition/Discussion

Moody's Investors Services routinely monitors the University's credit rating and takes into account several factors related to the University's overall financial health, student demand, financial statement analysis, state support, and analysis of the University's management strength. Moody's credit ratings range from a high of Aaa to C.

The University works to maintain its current credit rating per Board policy.

Measure

Athletics graduation success rate (GSR) (Twin Cities)

Definition/Discussion

The percentage of first-time, full-time undergraduates in Division I athletics who begin at the Twin Cities campus as freshmen or transfers, receive athletic aid their first year, and graduate within six years of their first term at any institution. The GSR excludes student-athletes who leave the University in good academic standing with remaining athletic eligibility.

Though it functions much like a traditional graduation rate statistic, the GSR is a measure unique to intercollegiate athletics. The GSR holds colleges accountable for graduating those student-athletes who transfer into the University and but also does not penalize an institution's graduation rate for student-athletes that transfer or leave an institution with athletic eligibility and in good academic standing.

The University already ranks very highly in this measure and has the goal to maintain the significant gains of the past several years.

University of Minnesota
Driven to Discover℠

The University's mission, carried out on multiple campuses and throughout the state, is threefold:
research and discovery; teaching and learning; and outreach and public service.