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**We are
driven.**

2018 Performance and Accountability Report



UNIVERSITY OF MINNESOTA

Driven to Discover®

Crookston Duluth Morris Rochester Twin Cities



2018 University 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 one of Minnesota’s 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, engineering, and veterinary medicine programs as well as law and medical schools.

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 2018 was 66,880. Sixty-six percent of registered students were undergraduates. Non-degree-seeking students represented eight percent of total enrollment. In 2017–18, the University granted 10,736 bachelor’s degrees, 3,561 master’s degrees, and 1,675 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 citizens of Minnesota and, on their behalf, hold the University’s senior leadership accountable. The board’s fundamental accountability documents are the Systemwide Strategic Plan (president.umn.edu/strategic-vision/system-wide), University Performance and Accountability Report (z.umn.edu/accountabilityreport), the Annual Operating Budget (finance.umn.edu/budget.html), and the 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 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 impact by county and legislative district (government-relations.umn.edu/content/universitys-impact);
- Annual report of University research activity (research.umn.edu/resources/research-statistics);
- Annual accounting of student services fee allocations (ssf.umn.edu);
- Public Engagement reports (www.engagement.umn.edu/our-impact/reports);
- Institutional success and demographic data managed by the Office of Institutional Research (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:

- 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. In July 2018, the Higher Learning Commission officially continued Duluth's accreditation based on the successful review conducted in the spring. In particular, the review team noted the campus's "work and progress on the strategic plan" as well as the "great work with regard to the assessment of student learning."

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/academic-oversight/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 Performance and Accountability Report

As noted earlier, Board of Regents operations policy identifies this report as one of four fundamental accountability and planning documents. Specifically, the University Performance and Accountability Report:

- publicly demonstrates the University's accountability for progress in reaching its stated goals and objectives;
- links planning, performance evaluation, and resource allocation at the system and campus/college level;
- 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 underway 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	2011	2012	2013	2014	Goal/Year	See page
4-year graduation rate	Crookston	44.5%	46.5%	46.2%	45.2%	45%/2017 cohort	57–58
	Duluth	39.0%	38.9%	40.9%	46.6%	45%/2017 cohort	45–46
	Morris	52.6%	54.3%	48.9%	49.1%	60%/2017 cohort	51
	Rochester	63.1%	56.4%	60.0%	55.4%	60%/2017 cohort	61
	Twin Cities	63.3%	65.2%	68.4%	71.1%	65%/2017 cohort	38–39
Entering Year		2009	2010	2011	2012	Goal/Year	
6-year graduation rate	Crookston	48.4%	56.7%	58.9%	53.0%	60%/2015 cohort	57–58
	Duluth	66.5%	64.7%	65.1%	64.9%	68%/2015 cohort	45–46
	Morris	68.1%	69.1%	64.1%	69.9%	80%/2015 cohort	51
	Rochester	60.0%	62.0%	69.4%	66.4%	60%/2015 cohort	61
	Twin Cities	77.6%	78.9%	80.6%	80.4%	82%/2015 cohort	38–39
Entering Year		2011	2012	2013	2014	Goal/Year	
4-year graduation rate of Pell-eligible students	System	45.4%	47.4%	50.9%	53.6%	54%/2017 cohort	31
		2015–16	2016–17	2017–18	2018–19	Goal	
Freshman average ACT	Twin Cities	28.2	28.3	28.4	28.4	>28.0	36
		2013–14	2014–15	2015–16	2016–17	Goal/Year	
Institutional gift aid	System	\$223M	\$233M	\$246M	\$260M	\$275M/2021	32
		FY2014	FY2015	FY2016	FY2017	Goal/Year	
R&D expenditures	Twin Cities	\$877M	\$881M	\$910M	\$922M	\$900M/2021	85
		FY2014	FY2015	FY2016	FY2017	Goal/Year	
Medical School ranking	Twin Cities/ Duluth	30	32	34	33	Top 20/2021	76
		2011–12	2012–13	2013–14	2014–15	Goal/Year	
Faculty awards N and (Rank: Public Universities)	Twin Cities	33 (5th)	32 (6th)	26 (8th)	35 (7th)	35+ (Top 10)/2021	106
		2013	2014	2015	2017	Goal/Year	
% Participation in Employee Engagement Survey	System	57%	64%	67%	71%	72%/2021	105
		FY2015	FY2016	FY2017	FY2018	Goal/Year	
Op-Ex—continued progress on \$90M	System	\$40.4M	\$57.8M	\$68.4M	\$79.1M	\$90M/FY19	112

See pages 3–4 for background on this Progress Card,
and Appendix E for definitions of the measures.

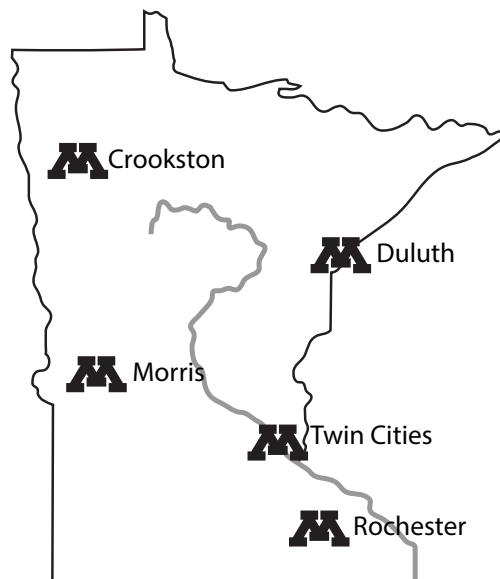
Maroon Measures

Strategic Focus	Campus	Performance Drivers/Outcomes	2012	2013	2014	2015	Goal	See page
Undergraduate Education	Twin Cities	Transfer student 3-year graduation rate	61.4%	62.4%	64.6%	63.8%	>65%	36
			2014–15	2015–16	2016–17	2017–18	Goal	
Graduate Education	Twin Cities/ Duluth	Graduate and professional degrees awarded	5,305	5,184	5,372	5,236	>5,250	2
			2013–14	2014–15	2015–16	2016–17	Goal	
Financial Accessibility	System	Median undergraduate debt at graduation	\$24,854	\$24,776	\$24,645	\$24,268	Grow no faster than CPI; correct for federal/state policy changes	32
			2014	2015	2017	2018	Goal	
Inclusive Success	Twin Cities	Students of color with a favorable sense of belonging on campus (SERU survey)	58.9%	57.3%	52.3%	49.9%	Match non-SOC response (currently 63.1%)	36
			2014	2015	2016	2017	Goal	
Serving Minnesota Students	System	Percent of incoming new (and all currently enrolled undergraduate) students who are Minnesota high school graduates	71.0% (71.4%)	70.0% (71.0%)	70.6% (71.1%)	69.4% (70.6%)	Maintain historical access	32
	System	Percent of Minnesota high school graduates that elect to attend college in Minnesota and enroll at the University as freshmen	16.7%	16.6%	18.8%	19.6%	Maintain historical access	32
			2015–16	2016–17	2017–18	2018–19	Goal	
Health Sciences	Twin Cities/ Duluth/ Rochester	Enrollment in in-demand health science specialties (Nursing, Pharmacy, Dentistry)	2,085	2,072	2,075	2,163	>2,100	78
	Twin Cities/ Duluth/ Rochester	Total combined fall enrollment in Academic Health Center schools and AHC Center for Allied Health	6,198	6,316	6,176	6,567	>6,350	78
			2014–15	2015–16	2016–17	2017–18	Goal	
Research	Twin Cities	National public research ranking	8	8	8	9	Maintain top 10	85–86
	System	MN-IP agreements	69	81	72	86	10% annual growth	90
			2013–14	2014–15	2015–16	2016–17	Goal	
Land-Grant Mission	System	Public service expenditures	\$253M	\$248M	\$258M	\$306M	>\$245M	95
			2012–13	2013–14	2014–15	2015–17	Goal	
Academic Excellence	Twin Cities	Citations per faculty member	126	124	133	n/a	>125	85
			2000–05		2005–10	2010–15	Goal	
	System	National scholarships awarded to students	31		52	75	>80 from 2015–2020	32
			FY2014	FY2015	FY2016	FY2017	Goal/Year	
Operational Excellence	System	Spending on leadership & oversight vs. mission and mission support (%)	8.4%	8.1%	8.3%	8.2%	Decrease over time	112
	System	GSF in poor or critical condition (facility condition assessment)	7.73M	8.32M	8.43M	8.50M	Decrease over time	113
	System	Sustainability—metric tons of greenhouse gasses (2008 base level: 703,311)	603,504	592,269	571,595	581,779	50% reduction from 2008 levels by 2021 (351,656)	113
	System	Credit rating	Aa1	Aa1	Aa1	Aa1	Maintain per Board policy	111
			2005–08	2006–09	2007–10	2008–11	Goal	
Athletics	Twin Cities	Graduation Success Rate (GSR)	88.2%	90.2%	91.9%	93.1%	Maintain recent gains	39

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 individual 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.

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

151 undergraduate degree programs; 184 master's degree programs; 107 doctoral degree programs

Student Enrollment (Fall 2018)

Undergraduate	31,455	(62%)
Graduate	12,189	(24%)
Professional	3,757	(7%)
Non-degree	3,450	(7%)
Total	50,851	

Employees (Fall 2018)

Direct Academic Providers	7,116	(29%)
Fellows, Trainees, and Students in Academic Jobs	6,254	(26%)
Higher Education Mission Support	3,998	(16%)
Intercollegiate Athletics	139	(1%)
Facilities-related Jobs	1,355	(6%)
Organizational Support	4,523	(19%)
Leadership	992	(4%)
Total Employees	24,377	

Degrees Awarded (2017–18)

Bachelor's	7,811	(61%)
Master's	3,349	(26%)
Doctoral and Professional	1,666	(13%)
Total	12,826	

Campus Physical Size (2018)

<i>Minneapolis</i>	
Number of Buildings	165
Assignable Square Feet	11,433,866
<i>St. Paul</i>	
Number of Buildings	100
Assignable Square Feet	2,577,964

Budget Expenditures (FY2018)

\$3.4 billion

Planning at the University of Minnesota Twin Cities

The Twin Cities campus continues to implement “Driving Tomorrow,” its multifaceted strategic plan to accelerate advancement of excellence in research, teaching, and outreach.

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 Driving Tomorrow plan frames many actions that will further expand the impact of the campus in carrying out 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. Approved by the Board of Regents in fall 2014, 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 underway 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 jump-starting 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. Two phases to date have made internal investments totaling \$3.6 million in team projects and research collaboratives aimed at strengthening food sustainability, closing health disparities, mitigating water pollution, promoting healthy child development, and addressing other critical issues. The teams span hundreds of researchers and scholars across the University’s 17 colleges and schools, along with external partners. A third phase, in 2018–19, will make further investments in ambitious work leveraging a wide range of exceptional research strengths at the University in collaboration with community partners.

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 underway 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

	TYPE			SCOPE				SIZE				STUDENTS	
Institution	Land Grant	City Size (2)	State Pop. (3)	Institution Includes:				Enrollment (9)		Faculty (10)	R&D (11)	ACT 25 th -75 th Percentiles (12)	Percent in-state (13)
				Agricult. College	Law School	Med. School	Hospital	Under-grad.	Grad. & Prof.				
Ohio State U.–Columbus	●	Large	11.5	●	●	●	●	59,482 44,762	13,651	2,431	\$864	26.4-31.3	67%
Penn. State U.–University Park	●	Small	12.7	●	○(4)	○(5)	○(5)	47,789 40,891	6,430	1,775	\$855	24.2-29.0	53%
U. of California–Berkeley	●(1)	Mid-size	37.3		●			40,154 29,309	10,844	1,831	\$771	29.3-34.6	76%
U. of California–Los Angeles	●(1)	Large	37.3		●	●	●	43,548 30,859	12,675	1,373	\$1,077	26.3-33.0	75%
U. of Florida–Gainesville	●	Mid-size	18.8	●	●	●	○(6)	52,367 33,309	17,813	1,743	\$801	26.5-31.0	83%
U. of Illinois–Urbana-Champaign	●	Small	12.8	●	●	●	○(7)	46,951 32,752	13,019	1,974	\$642	26.6-32.2	74%
U. of Michigan–Ann Arbor		Mid-size	9.9		●	●	●	44,718 28,761	15,735	1,757	\$1,530	29.0-33.2	51%
U. of Minnesota–Twin Cities	●	Large	5.3	●	●	●	○(6)	51,579 30,974	16,709	2,752	\$922	26.0-31.2	64%
U. of Texas–Austin		Large	25.1		●	○(8)	○(8)	51,331 39,676	11,163	2,173	\$652	25.5-32.0	88%
U. of Washington–Seattle		Large	6.7		●	●	●	45,591 29,831	14,658	2,711	\$1,348	24.7-31.3	68%
U. of Wisconsin–Madison	●	Mid-size	5.7	●	●	●	●	42,582 29,536	11,624	1,936	\$1,193	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 2016 enrollment. Total enrollment includes non-degree-seeking students; undergraduate enrollment includes only degree-seeking students. Integrated Postsecondary Data System.

10 Fall 2016 full-time instructional faculty that are tenured/tenure track. Integrated Postsecondary Education Data System.

11 Fiscal year 2017 higher education R&D expenditures in millions. National Science Foundation, Higher Education Research Survey.

12 Fall 2016 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 2016 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
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

91 undergraduate degree programs; 25 graduate programs;
participates in two all-University doctoral programs

Student Enrollment (Fall 2018)

Undergraduate	9,109	(83%)
Graduate	682	(6%)
Professional*	351	(3%)
Non-degree	898	(8%)
Total	11,040	

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

Employees (Fall 2017)

Direct Academic Providers	682	(36%)
Fellows, Trainees, and Students in Academic Jobs	259	(13%)
Higher Education Mission Support	272	(14%)
Intercollegiate Athletics	54	(3%)
Facilities-Related Jobs	170	(9%)
Organizational Support	406	(21%)
University Leadership	77	(4%)
Total Employees	1,920	

Degrees Awarded (2017–18)

Bachelor's	2,096	(91%)
Master's	210	(9%)
Doctoral	9	(<1%)
Total	2,314	

Campus Physical Size (2018)

Number of Buildings	81
Assignable Square Feet	1,887,006

Budget Expenditures (FY2018)

\$271 million

Planning at the University of Minnesota Duluth

Strategic Planning

The University of Minnesota Duluth (UMD) successfully updated its strategic plan, originally created in 2011, by adapting its six goals and updating the associated initiatives and action steps. After significant internal and external consultation and discussion, the updated and modified goals and initiatives were approved through the campus's shared governance process in spring 2018.

The campus paid careful attention to the University Progress Card maroon and gold measures—connecting existing targets to initiatives and elaborating specific measures to UMD. In addition, the development of the initiatives and updating of goals ran parallel to the system's strategic planning process, assuring connectivity and integration between the campus and system efforts.

Reflection

The 2017–2018 academic year provided a critical context for reflection as UMD completed its assurance argument in advance of an April 2018 comprehensive visit from the Higher Learning Commission. As strategic planning at UMD ran concurrent with most of the ten years covered since the previous accreditation visit, and UMD connected its campus program prioritization and planning to the accreditation “Quality Initiative” process, the campus had the opportunity to assess what strategic planning foci had become integrated into the campus operational culture and what efforts needed further attention or refinement.

The Quality Initiative report was submitted in August 2017 and the comprehensive assurance argument in March 2018. The result was very positive feedback from the Higher Learning Commission, including a ten-year accreditation, a clean federal compliance report, and a better understanding of how UMD may marshal its considerable strengths to move forward as an institution. Several elements of these processes stand out. One, UMD is increasingly an evidence- and data-driven institution with a better understanding of itself and its strengths and challenges. Two, UMD is

more effective at connecting with external audiences and stakeholders to assess its impact and relevance to the region and state. And, three, UMD is willing to be more focused and is prepared to prioritize its resources to have the most impact on students and external communities. The updated goals and initiatives published in spring 2018 reaffirm these three elements.

Moving Forward

With more action-oriented and assessable goals, UMD has been able to identify concrete initiatives in support of its updated strategic plan. Since the plan was informed by data collected from internal and external stakeholders—as well as an analysis of the campus's strengths, weaknesses, opportunities and threats—the goals provide the means to propel the campus forward and capitalize on opportunities in the areas of student experiences, academic programming, research, and community and economic development. Across these core areas, UMD's goals reinforce the basic and defining characteristics of the land-grant mission.

For the 2018–2019 academic year, UMD is identifying University-wide activities and focal points associated with the campus plan's initiatives. Cross-functional work teams and shared governance committees will play important roles in making measurable progress with respect to the strategic plan. UMD will also connect its strategic efforts to its engagement at the national level—integrating goals and initiatives with other initiatives promoted by the Association of Public Land Grant Universities and the American Association of State Colleges and Universities. Further, UMD will continue to find the connections and crossovers with University system planning.

This year, UMD will pay particular attention to issues of student retention; campus climate and inclusivity; internationalization; community and public engagement; regional economic development; and interdisciplinary academic program development (with a reinforced focus on high-impact practices that lead to student success and satisfaction). Each of these issue areas are articulated through UMD's strategic plan and elements of the campus's participation in national initiatives. Consequently, UMD is striving to not only deliver on its promise to students and the state of Minnesota but to also raise the profile of the campus among its actual and aspirational peers.

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	21,306	96%	96%	83%
Col. of Charleston	Public	Mid-size	Post-Master's Certificate	11,294	89%	94%	58%
Minnesota State U.—Mankato	Public	Small	Doctorate	15,165	80%	89%	83%
South Dakota State U.	Public	Small	Doctorate	12,600	78%	86%	50%
Southern Illinois U.—Edwardsville	Public	Mid-size	Doctorate	14,142	82%	85%	85%
U. of Mass.—Dartmouth	Public	Mid-size	Doctorate	8,647	78%	88%	93%
U. of Michigan—Dearborn	Public	Large	Doctorate	9,131	75%	71%	96%
U. of Minnesota—Duluth	Public	Large	Doctorate	11,018	82%	95%	85%
U. of North Carolina—Charlotte	Public	Large	Doctorate	28,721	81%	87%	92%
U. of Northern Iowa	Public	Mid-size	Doctorate	11,905	84%	92%	91%
Western Michigan U.	Public	Mid-size	Doctorate	23,227	77%	83%	85%
Western Washington U.	Public	Mid-size	Post-Master's Certificate	15,574	93%	92%	83%

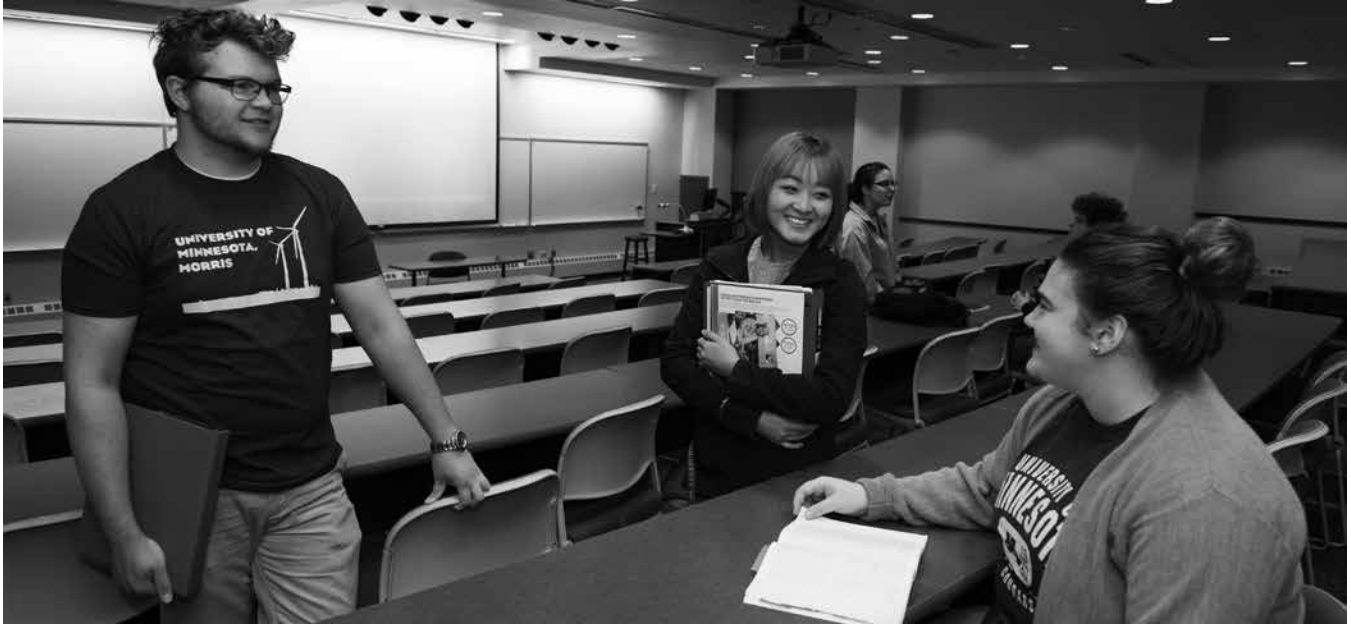
¹Fall 2016 enrollment. Total Enrollment includes non-degree-seeking students.

²Fall 2016 percentage of total enrollment composed of degree-seeking undergraduate students.

³Fall 2016 percentage of degree-seeking undergraduate students who are enrolled full time.

⁴Fall 2016 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

35 undergraduate degree programs; 9 pre-professional programs

Student Enrollment (Fall 2018)

Undergraduate	1,488	(96%)
Non-degree	66	(4%)
Total	1,554	

Employees (Fall 2018)

Direct Academic Providers	159	(38%)
Fellows, Trainees, and Students in Academic Jobs	1	(<1%)
Higher Education Mission Support	70	(17%)
Intercollegiate Athletics	26	(6%)
Facilities-Related Jobs	51	(12%)
Organizational Support	103	(24%)
University Leadership	14	(3%)
Total Employees	424	

Degrees Awarded (2017–18)

Bachelor's	338
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Campus Physical Size (2018)

Number of Buildings	36
Assignable Square Feet	599,467

Budget Expenditures (FY2018)

\$57 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 projected to be completed in 2019—imagining and then creating the University of Minnesota Morris of the future. In fall 2018, the University endorsed a campus vision and eight aspirational statements to guide the campus in the achievement of that vision. 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 30 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 recent receipt of several prestigious and highly competitive grants—a Mellon Foundation grant to support collaborative undergraduate research in the humanities; 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. In 2018, Morris was awarded the inaugural Excellence in Sustainability award from the National Association of College and University Business Officers, and was one of only 112 universities in the country to receive an AASHE STARS Gold rating.

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 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 is building model platforms for sustainability and on-site generation of renewable energy, work that is

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 2018, Morris officials partnered with local business and civic leaders as part of a delegation to Saerbeck. There they exchanged ideas and goals related to community-level renewable energy projects.

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 University's 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 and beautiful 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. Combining campus resources, HEAPR funds, and renovation funds, the Morris campus is working to make incremental modifications to some of these buildings, including HVAC upgrades and the recent addition of an elevator. Morris received funding through the most recent bonding process for updates to classroom spaces in the Humanities and Blakely buildings.

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 predesign 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 on campus. In recognition of Morris's national leadership in sustainability and environmental education, a gift of 140 acres in Ottertail County provides another opportunity for research, reflection, and discovery dedicated to environmental stewardship. This space, named the Ecostation, fosters 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 to support their research. University funds have also helped the faculty address the distance of Morris from major research facilities and commercial airports. 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 student population. The campus continues to prioritize the development of community among existing faculty, nearly 40 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 goal. In fall 2017, Morris began 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 a **Ronald E. McNair Post-Baccalaureate Achievement Program grant** to prepare low-income, first-generation students and

students from groups underrepresented in graduate education for doctoral study (2018);

- working with other system campuses to **pilot promising mental health programs** (including the “Let’s Talk” program and the use of telemedicine for psychiatry services) (2018);
- reconfiguring the **Academic Center for Enrichment (ACE)** to increase student engagement with high-impact practices (e.g., study abroad, undergraduate research, honors) and integration of career services, including hiring of a full-time ACE director (2018);
- 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 for 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 students 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** (2013) 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, strengthening, and streamlining 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	1,418	98%	99%	75%
Coe Col.	Private	Small	Bachelor's	1,406	94%	99%	38%
Concordia Col.–Moorhead	Private	Mid-Size	Master's	2,132	95%	99%	67%
DePauw U.*	Private	Small	Bachelor's	2,225	98%	100%	34%
Gustavus Adolphus Col.*	Private	Small	Bachelor's	2,250	100%	99%	75%
Kalamazoo Col.*	Private	Mid-Size	Bachelor's	1,443	98%	100%	61%
Lycoming Col.	Private	Mid-Size	Bachelor's	1,263	99%	100%	50%
Macalester Col.*	Private	Large	Bachelor's	2,146	99%	99%	14%
Mass. Col. of Liberal Arts	Public	Small	Master's	1,644	86%	89%	66%
St. Mary's Col. of Maryland	Public	Small	Master's	1,629	97%	98%	93%
St. Olaf Col.*	Private	Small	Bachelor's	3,040	98%	100%	42%
SUNY at Purchase Col.	Public	Small	Master's	4,156	94%	93%	81%
U. of Virginia's Col. at Wise	Public	Small	Bachelor's	2,212	62%	93%	92%
U. of Maine–Farmington	Public	Small	Master's	2,000	88%	94%	82%
U. of Minnesota–Morris	Public	Small	Bachelor's	1,771	95%	96%	84%
U. of N.C.–Asheville	Public	Large	Master's	3,821	91%	90%	85%

*Aspirational peer institutions

¹Fall 2016 enrollment. Total Enrollment includes non-degree-seeking students.²Fall 2016 percentage of total enrollment composed of degree-seeking undergraduate students.³Fall 2016 percentage of degree-seeking undergraduate students who are enrolled full time.⁴Fall 2016 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; 16 online majors;
2 academic programs offered in China

Student Enrollment (Fall 2018)

Undergraduate	1,834	(65%)
Non-degree	976	(35%)
Total	2,810	

Employees (Fall 2018)

Direct Academic Providers	133	(42%)
Higher Education Mission Support	62	(20%)
Intercollegiate Athletics	26	(8%)
Facilities-Related Jobs	25	(8%)
Organizational Support	59	(19%)
University Leadership	9	(3%)
Total Employees	314	

Degrees Awarded (2017–18)

Bachelor's	405
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Campus Physical Size (2018)

Number of Buildings	41
Assignable Square Feet	482,174

Budget Expenditures (FY2018)

\$43 million

Planning at the University of Minnesota Crookston

In 2017–2018, Crookston continued a strategic planning process that aligns with its commitment to continuous improvement and focuses on planning for strategic opportunities emerging from real-time situations. Three key documents—Future Business Model, Institutional Identity Statement, and Strategy Screen—are used to define and select strategic priorities aligning with the mission, vision, and values of the institution. To that end, much of the year was spent refreshing Crookston’s mission statement and updating the vision and values of the institution. Students, faculty, staff, alumni, community members, and other stakeholders were invited to complete the statement “Imagine a University of Minnesota Crookston that...” Themes from these conversations were compiled to create new vision and values statements that were vetted through the same groups.

Crookston’s mission remains the same, however the wording of the statement was refreshed:

The University of Minnesota Crookston delivers educational programs that build upon a broad academic foundation and combine theory, practice, and experimentation in a technologically rich environment. We prepare students for career success, advanced study, and engaged citizenship in a diverse world. We integrate teaching and learning, research and scholarly work, and outreach and engagement to serve the public good.

The updated vision and values provide a new sense of direction for future Crookston planning.

Vision

Envision a University of Minnesota Crookston that fulfills its modern land-grant mission by ensuring we are passionate about learning and discovery to serve the public good. We will achieve this vision by:

- Creating and being leaders who are ethical and innovative, culturally and globally competent, and committed to engagement in their communities.
- Connecting all students—on campus and online—to each other, the campus, faculty, staff, alumni, and community.

- Conducting research and scholarly work that enhance learning and benefit the region and beyond.
- Cultivating a spirit of UMC and Golden Eagle pride.

Values

- **Student Success:** Realizing individual potential through personal attention, mentorship, high-impact teaching and learning, and encouraging self-discovery
- **Diversity:** Embracing the richness and value of individual differences, ideas, cultures, and communities
- **Leadership:** Making a difference while serving others with integrity, honesty, fairness, and respect
- **Community:** Building relationships with each other and our neighbors for the benefit of all
- **Innovation:** Promoting discovery and problem solving through creative and critical thinking, research, and scholarly work
- **Sustainability:** Making choices that meet the environmental, economic, and societal needs of the present while safeguarding a vibrant future
- **Continuous Improvement:** Using evidence, data, and best practices to improve academic programs, student support and services, and business and operational processes

Institutionalized Strategic Initiatives

In 2017, Crookston retired its strategic initiative around community engagement. The Crookston Campus-Community Connection (C4) initiative that began in 2015 continues to thrive and serves as a vehicle for campus-community relationship building. A formal 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—meets regularly to plan and coordinate events and exchange information in an effort to build the town-gown relationship. Dine Around Town, College Town Forums, and Maroon and Gold Fridays are a few examples of C4’s successful work.

The Crookston campus is close to retiring its Employee Engagement strategic initiative designed to enhance development and leadership opportunities for faculty and staff, a need identified within the E2 Employee Engagement survey results. An ad-hoc committee plans content applicable to both faculty and staff for the two employee professional development days scheduled on the Crookston calendar. In addition, campus employees interested in developing leadership skills may apply to participate in the UMC Leadership Academy, a year long, cohort-based program that consists of four half-day core sessions led by the University's Extension. Additionally, participants choose ten hours of elective leadership content customized to fit their desired program outcomes. Sixteen employees completed the program in 2017–2018; an additional 15 will participate in the 2018–2019 academic year.

Enrollment Management

Over the past five years, a primary goal of campus strategic planning has been to achieve a critical mass of on-campus students while strategically growing online enrollment. While overall enrollment remains flat, a trend of declining on-campus enrollment is concerning. The campus has capacity for growth, and is working to reverse the on-campus trend. In fall 2018, work began to move away from a traditional admissions office model to a more comprehensive enrollment management model, creating a home for recruitment as well as retention of students. Selective investment is going to be made in academic programs that are unique, distinctive, and have capacity to grow; marketing dollars made available will be targeted toward those areas.

Crookston begins its third year of the four-year Persistence and Completion Academy sponsored by the Higher Learning Commission. Work from the first two years of the Academy led Crookston to discover that moving away from its traditional ACT-based admission criteria to a more holistic approach will allow for better selection of students fit for success at the campus. In an effort to support all incoming students, three pilot first-year experience courses were in place for fall 2018. Through the work of the Academy, faculty will develop and deploy by fall 2019 a required first-year experience course that will

create a shared student experience and a more smooth transition to college-level work for all freshmen.

The campus has also developed a predictive model to project enrollments earlier, leading to more accurate budget building, and has assigned additional data responsibilities to ensure a single source for connecting recruitment information from all data sources.

Online enrollment continues to grow, primarily serving adult learners in the workforce who wish to complete a baccalaureate degree. With the fall 2018 addition of the Agricultural Business program, the campus is now offering its first agricultural degree in an online format.

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 to close the graduation rate gap between students of color and white students while increasing the graduation rate for all students.

In 2017–2018, a task force studied the investments necessary for Crookston to serve and recruit the increasing numbers of Latinx populations graduating from area high schools in the near future. The task force recommendations included Crookston being able to provide Spanish-speaking faculty and staff, translating publications to enable recruitment and support of this population, programming involving the Latinx culture, and continued outreach to the Latinx community. An estimated \$100,000 annual investment would be required to achieve the task force recommendations, and UMC is looking for grant opportunities to further this work. In the meantime, UMC is beginning to explore partnerships with local K-12 education providers to support the region's Latinx populations.

Additionally, the campus has partnered with the Red Lake Nation on a dual enrollment agreement to direct students completing an associate's degree at Red Lake Nation College to Crookston's four-year degree programs. Ongoing conversations are focused on how

faculty at the two institutions might collaborate on research initiatives.

UMC Spirit and Golden Eagle Pride

A surprising theme emerged as the campus held open forums to define a new vision for the institution: the desire among all constituency groups to build a stronger sense of school spirit and institutional pride. Golden Eagle Athletics is beginning this work by initiating a student group, “The Flock,” initiating use of a phone app to push events and revising the Teambacker tailgates to encourage greater alumni and community engagement. Faculty and staff receive frequent “Points of Pride” so they can be better informed and communicate the many assets found at Crookston. Institutionally, there is a renewed emphasis on outreach to the community with respect to campus arts performances, and the campus will be working to expand the success of “Maroon and Gold Friday” beyond the Crookston community.

Research Infrastructure

Significant dollars have been invested to expand campus infrastructure to support faculty and undergraduate researchers. Spring 2018 saw the opening of the Center for Collaborative Research, the first self-contained laboratory facility on the Crookston campus allowing work in analytical

chemistry, microbiology, and molecular/cellular biology to be carried out from start to finish. The campus-funded space, which is vital to faculty research involving undergraduate students, is already advancing study of the relationship between the existence of freshwater sponges and water quality.

The 2018 Minnesota state capital investment bill included \$3.2 million for the Crookston campus, allowing for optimization of lab facilities in Dowell Hall to support STEM education, computational research, and teacher education; and renovation of Owen Hall chemistry and biology labs, which will modernize flexible bench space and support independent undergraduate research.

Additional money allocated to the campus will be used to increase capacity for external grant application writing. Grants will advance the scientific research of students and faculty, along with creative works and research in the social sciences. Recent student research has looked at the impact of social media on relationships and on student grade point average.

Comparison Group Institutions

For planning and assessment benchmarking, Crookston has identified eleven institutions similar in academic program mix, enrollment and student profile, and in a relatively rural setting (Table 3-4).

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	4,106	67%	75%	99%
Lake Superior State U.	Public	Small	Doctoral	2,099	98%	88%	90%
Northern State U.	Public	Small	Master's	3,587	43%	86%	66%
Northwest Missouri State U.	Public	Small	Master's	6,530	80%	93%	64%
Northwestern Oklahoma State U.	Public	Small	Master's	2,218	84%	77%	62%
Southwest Minnesota State U.	Public	Small	Master's	7,495	31%	80%	73%
SUNY Col. of A&T at Cobleskill	Public	Small	Bachelor's	2,287	99%	95%	94%
U. of Tennessee–Martin	Public	Small	Master's	6,705	83%	89%	90%
U. of Minnesota–Crookston	Public	Small	Bachelor's	2,676	68%	63%	66%
U. of Pittsburgh–Johnstown	Public	Small	Bachelor's	2,769	100%	98%	94%
U. of Wisconsin–Platteville	Public	Small	Master's	8,779	88%	90%	78%
U. of Wisconsin–River Falls	Public	Small	Master's	5,938	90%	89%	46%

¹Fall 2016 enrollment. Total Enrollment includes non-degree-seeking students.

²Fall 2016 percentage of total enrollment composed of degree-seeking undergraduate students.

³Fall 2016 percentage of degree-seeking undergraduate students who are enrolled full time.

⁴Fall 2016 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, Chancellor

Campus Academic Programs

Health Professions

Health Sciences

Biomedical Informatics and Computational Biology¹

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

Labovitz School of Business and Economics, UMD

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 2018)

Undergraduate	519	(83%)
Partnerships, Graduate & Professional ¹	202	(15%)
Non-degree	14	(2%)
Total	723	

Employees (Fall 2018)

Direct Academic Providers	40	(42%)
Fellows, Trainees, and Students in Academic Jobs	4	(4%)
Higher Education Mission Support	27	(28%)
Facilities-Related Jobs	1	(1%)
Organizational Support	17	(18%)
University Leadership	7	(7%)
Total Employees	96	

Degrees Granted (2017–18)

B.S. (Health Sciences)	58
B.S. (Health Professions)	27
M.S. and Ph.D. (Biomedical Informatics and Computational Biology) ¹	8

Campus Physical Size (2018)²

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

Budget Expenditures (FY2018)

\$18 million

¹All-University graduate degrees granted by the Twin Cities campus with the administrative home on the Rochester campus.

²All 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. 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. While a comprehensive, long-range planning process for scaling the Rochester campus was launched in fall 2018, the recently completed campus strategic plan was shaped by established anchors and initiated by clarifying the grounding values, centering aspirations, and strategic priorities.

Grounding Values

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

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

The recently completed campus strategic plan is being enacted, with tactical goals assigned to responsible parties for the current academic 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;
- providing a high-quality, evidence-based education and student development experience with an anticipated increase in retention;
- valuing ethnic, social, economic, cultural, and geographic diversity;
- supporting timely graduation; and
- contributing to and cooperating with system enrollment management planning (embedded in the emerging Systemwide Strategic Plan).

Through 2021, the Rochester campus is working to expand total 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. The campus has been meeting this goal and is expected to continue this growth through the end of the current enrollment management plan period, with a demand for increased lab-classrooms met by campus occupation of Discovery Square and continued pressure in housing and human resources. The campus's current capacity, with no increase in state allocation or tuition, is lower than the healthcare industry's workforce demand in the southeast region and across the state.

Even as the current campus strategic plan is enacted during academic year 2018–2019, a long-range plan is under development to scale the campus significantly with a phased approach to funding that expansion. Current tactical priorities include adding a development staff person and launching a development plan, while pursuing alternate funding mechanisms in an environment of declining resources for public higher education. Other priorities in progress as identified in the campus strategic plan include:

- 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

To date, the timeline and activities for the campus strategic planning process have been:

- 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 was completed in academic year 2017–2018.
- Finalization of the plan in summer 2018.

Forthcoming, the campus expects the planning process to include:

- Alignment of the campus plan with the University's Systemwide Strategic Plan, awaiting Board of Regents decisions and direction in this presidential transition year.
- Launch of a long-range planning process to scale the Rochester campus, even as the current campus strategic plan is enacted.



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 53.6 percent for the cohort entering in 2014 (**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 \$260 million in 2016–17 (**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 2016–17 was \$24,268, 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 35 percent in 2013–14 to 40 percent in 2017–18. The total amount of funding for graduate assistants, fellows, and trainees during fiscal year 2018 was \$184,019,746, a 1.9 percent increase over the previous year and an increase of 14.5 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 2017, 69.4 percent of the new entering class and 70.6 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 2017, the portion was 19.6 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, 28 new graduate students were awarded National Science Foundation Fellowships, one graduate student received a CIC/Smithsonian Fellowship, 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 2018, 18 percent of all degree-seeking students enrolled on the Twin Cities campus were Pell recipients. Looking at specific groups of students: Minnesota resident students, 23 percent; freshmen, 17 percent; new transfer students, 27 percent. Another measure is the percentage of first-generation college students, defined as neither parent having completed a college degree. In fall 2018, 26 percent of all degree-seeking students on the

Table 4-1. Total financial support to Twin Cities campus undergraduate degree-seeking students, 2016–17 and 2017–18

Aid Category	Aid Year 2016–17	% of total	Aid Year 2017–18	% of total
Gift Aid (scholarships, grants)	\$147,935,320	41%	\$156,172,793	42%
Student Employment (including Work Study)	\$27,688,695	8%	\$27,668,781	7%
Loans (student and parent loans)	\$168,454,230	47%	\$169,541,899	46%
Waivers	\$17,251,194	5%	\$18,357,696	5%
Total	\$361,329,439	100%	\$371,741,169	100%

Source: Office of Institutional Research, University of Minnesota

Twin Cities campus were first-generation. Looking at specific groups of students: Minnesota resident students, 30 percent; new freshmen, 22 percent; new transfer students, 40 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 nearly 13,000 Minnesota undergraduates systemwide. The program provides funding to families making up to \$120,000.

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 9,208 new students enrolling on the Twin Cities campus in 2017–2018, 6,214 were freshmen and 2,994 (33 percent) were transfer students from outside the University. Over 38 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 are transferable to the campus. Over the past decade,

Table 4-2. Student loan debt trends for Twin Cities campus undergraduate degree recipients, fiscal years 2014–2018

Bachelor’s Degree Recipients	2013–14	2014–15	2015–16	2016–17	2017–18
% of Bachelor’s Degree Recipients with no student debt	39%	40%	43%	43%	44%
Average loan debt for those with debt	\$26,406	\$26,091	\$26,068	\$25,994	\$25,573
Median loan debt for those with debt	\$24,433	\$24,000	\$23,318	\$23,009	\$22,760

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.

the three-year graduation rate for transfer students (**Progress Card Measure**) has improved from 52.1 percent (students entering in 2005) to 63.8 percent (entering in 2015). Of the 7,811 undergraduate degrees awarded in 2017–18, 34 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 2017 to fall 2018, the number of undergraduates of color on the Twin Cities campus increased from 7,111 to 7,464 (from 22.5 percent to 23.7 percent). The number of international students decreased from 2,816 to 2,620 (from 8.9 percent to 8.3 percent). For fall 2018, the percentage of undergraduate students from Minnesota was 66.1 percent. Students from 47 states, plus Washington, D.C., and the American Virgin Islands, and from 88 countries were among the 31,455 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 increased by nearly 50 percent over the past decade, from 29,159 prospective students seeking admission for fall 2008 to 43,441 for fall 2018. During that same time period, the average ACT for the new freshman class has improved significantly, from 26.2 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 2018 freshman class includes students from 40 states and 38 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 students 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 2,279 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 555 new fall 2018 Honors students showed an average ACT of 33.1 and average high school rank of 97.2 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 2018 Student Experience in the Research University (SERU) survey indicated that 90 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 127 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

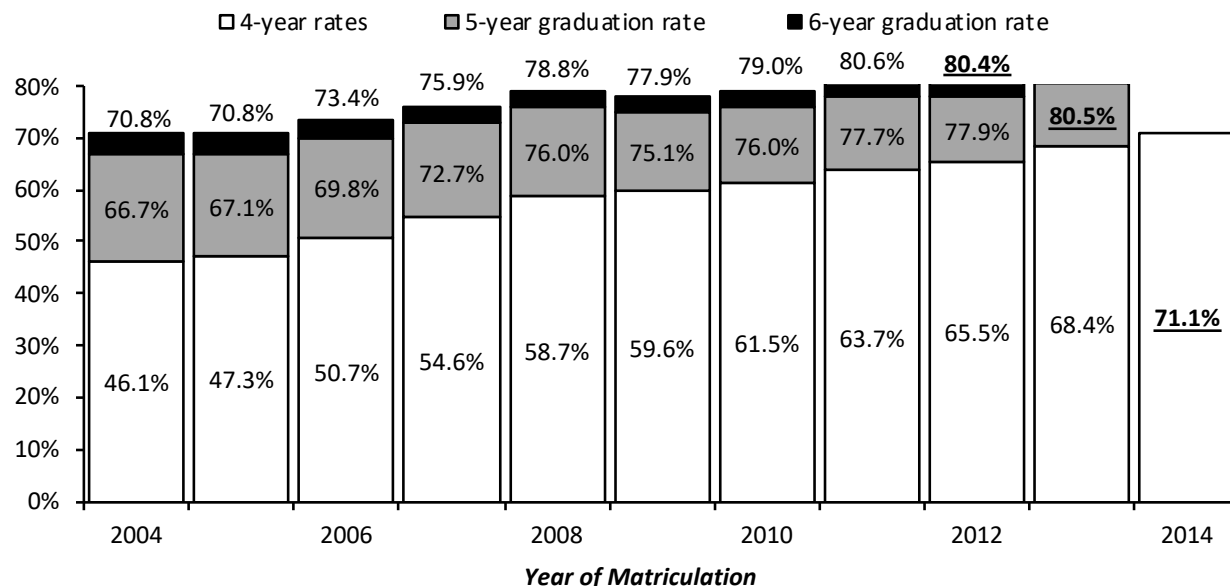
The University is committed to providing students with a distinctive, world-class liberal education and rigorous coursework in a field of study. Initiatives concerned with the student experience are focused on enriching students' knowledge, skills, and abilities and equipping them for the challenges 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
- 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-A and Figure 4-B show the most recent results, with rates at their highest levels ever, including four-year graduation rates now at 71.1 percent. As a result of this progress, the Twin Cities campus rates are moving ahead of 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 2010

Figure 4-A. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Twin Cities campus, classes matriculating in 2004–2014



*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

(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 as measured by the NCAA's GSR (**Progress Card Measure**) have continued to improve, increasing to 93.1 percent for the 2008–2011 cohort.

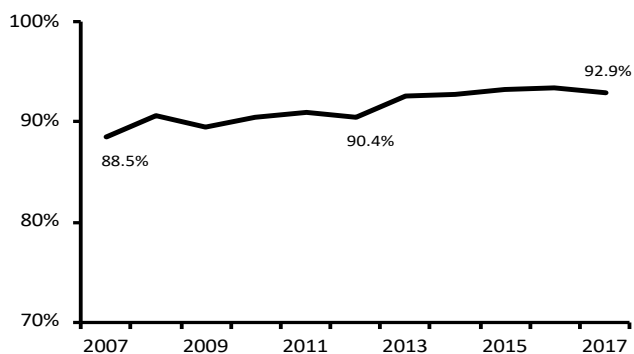
First-year retention rates for students of color have improved significantly (Figure 4-C) over the past ten years, as have retention rates for Pell-eligible students (Figure 4-D).

Degrees Conferred

The Twin Cities campus has increased by more than 17 percent the number of undergraduate degrees awarded over the past decade, from 6,650 in 2007–08 to 7,811 in 2017–18 (Figure 4-E).

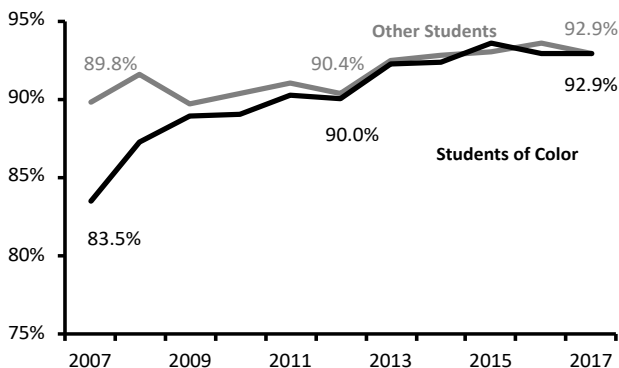
In response to changes in student interest and state and national employment needs, the Twin Cities campus is now awarding substantially more degrees in science, technology, engineering, and math (STEM) fields. From 2007–08 to 2017–18, the number of STEM degrees increased by 56 percent, from 2,284 to 3,573. STEM degrees awarded include all baccalaureate

Figure 4-B. First-year retention rates of first-time, full-time undergraduate students, Twin Cities campus, classes matriculating in 2007–2017



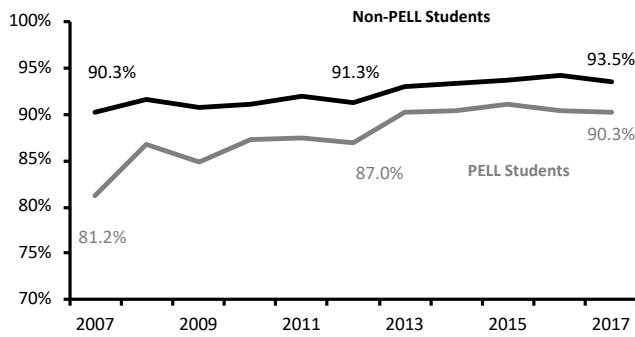
Source: Office of Undergraduate Education, University of Minnesota

Figure 4-C. New freshman retention, students of color and all other domestic students, Twin Cities campus, classes matriculating in 2007–2017



Source: Office of Undergraduate Education, University of Minnesota

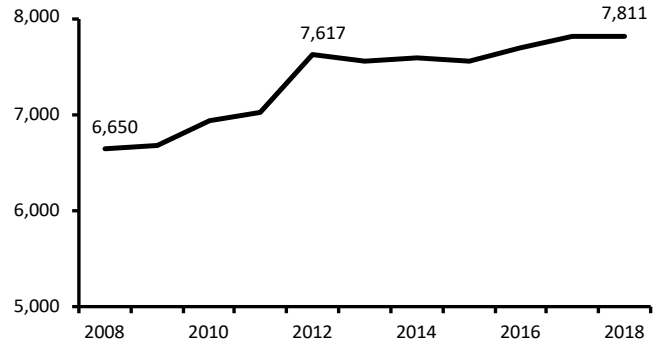
Figure 4-D. New freshman retention by Pell status, Twin Cities campus, 2007–2017



Source: Office of Undergraduate Education, University of Minnesota

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-E. Undergraduate degrees awarded, Twin Cities campus, 2007–2008, 2017–2018



Source: Office of Undergraduate Education, University of Minnesota

Table 4-3. Retention (class matriculating in 2016) and graduation (class matriculating in 2011) 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 Michigan – Ann Arbor	97.1%	77.1%
*U. of California – Berkeley	97.2%	75.8%
*U. of California – Los Angeles	96.6%	74.6%
*U. of Illinois – Urbana-Champaign	92.4%	70.4%
*U. of Florida – Gainesville	96.0%	68.0%
U. of Maryland – College Park	95.8%	66.9%
*Penn. State U. – Univ. Park	93.1%	66.7%
*U. of Washington – Seattle	94.4%	65.0%
U. of Minnesota – Twin Cities	93.0%	63.6% (71.1%)¹
Indiana U. – Bloomington	91.3%	62.8%
*U. of Wisconsin – Madison	95.3%	60.9%
Rutgers, State U. of New Jersey – New Brunswick	94.0%	59.9%
*Ohio State U. – Columbus	94.2%	58.5%
*U. of Texas – Austin	94.6%	57.8%
U. of Iowa – Iowa City	86.6%	54.1%
Michigan State U. – East Lansing	91.3%	51.7%
Purdue U. – West Lafayette	92.0%	51.4%
U. of Nebraska – Lincoln	82.8%	38.8%

Source: Common Data Set

*Comparison Group Institutions

¹ Most recent UMTC four-year graduation rate (class matriculating in 2014)

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 area and half from greater Minnesota. In 2017, 33 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 2017, 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 260 Best in Class scholarships in 2017 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. More than half of UMD undergraduates received a University scholarship in fiscal year 2017. Ongoing initiatives such as the student debt report card, financial peer mentoring program, and prospective student and family early financial education remain key aspects of UMD's financial support efforts (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. UMD has two full-time leadership positions dedicated to campus climate training and development for faculty, staff, administration, and students. UMD's Campus Climate Initiative continues in its eighth year with

Table 4-4. Student aid trends, degree-seeking undergraduates, Duluth campus, 2008 and 2018

	2008	2018
Gift Aid	\$24.2m	\$41.5m
Employment	\$4.1m	\$5.0m
Loans	\$53.7m	\$59.0m
Waivers	\$3.0m	\$1.9m
Total Student Aid	\$85.1m	\$107.4m

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

a new web presence to facilitate transparency and information sharing. Units across campus continue to move forward in alignment with the campus's strategic plan goal number two with efforts reported on the campus climate website under "Next Steps," as well as a campus-wide resource guide.

The Intercultural Leadership Development (ILD) initiative is in its sixth year and 16th cohort, providing a 40-hour professional development opportunity for over 270 faculty, staff, and administrators. In addition to the ILD initiative, UMD has developed internal capacity to offer the Equity and Diversity Certificate Program, originally developed and offered systemwide by the Office of Equity and Diversity. UMD's training team offers all ten of the certificate workshops per year 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 as well as workshops and a community of practice for faculty who want to integrate more inclusive content and pedagogy into their courses.

In 2016, UMD conducted a Campus Climate Survey. The results were shared with the campus community and "Ideas" sessions were held. After qualitative analysis, the Campus Climate Working Group determined three areas of focus: make UMD more diverse, make UMD more inclusive, and work on anti-bullying and civility.

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 cocurricular 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-F.

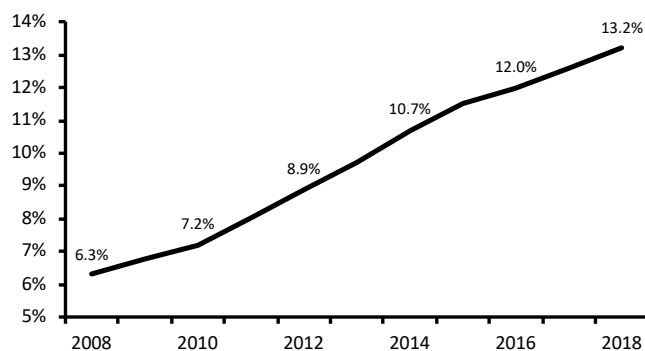
Academic Writing & Learning Center

UMD's Academic Writing and Learning Center (AWLC) provides academic courses and services designed to help all members of the campus community reach their academic and professional goals. The AWLC encompasses the Supportive Services Program, the Tutoring Center, and the Writers' Workshop.

The Supportive Services Program (SSP) offers learner-centered courses that contribute to students' personal, academic, and professional success. They prepare students for the rigors of college-level academics as well as train undergraduate peer tutors and mentors. For example, SSP partners with UMD's financial literacy educator for the highly successful Financial Peer Mentor Program, one of the first of its kind in the country. Starting fall 2018, innovative five-week, one-credit courses are offered: 1) Reading to Remember, 2) Time and Stress Management, and 3) Studying, Note Taking and Test Taking. These courses offer the advantage of taking an in-depth approach to particular learning strategies with the benefit of scheduling flexibility; students can take any number of the courses in any sequence, beginning at five-week intervals throughout the semester. A new three-credit Academic Reading and Writing course responds to faculty and student requests for more instruction in these essential academic skills. SSP also offers Supplemental Instruction for targeted, high-intensity courses that provides peer-assisted study sessions led by trained leaders.

Established in 1987, UMD's Tutoring Center has delivered nearly 350,000 tutorials by over 6,500 peer tutors. The program has been certified at the highest level by the College Reading and Learning Association, distinguishing it from many programs

Figure 4-F. Percent undergraduate students of color by fall term, Duluth campus, 2008–2018



Source: Office of Institutional Research, University of Minnesota

not only at peer institutions but also much larger universities. Currently, 120 to 160 undergraduate peer tutors offer over 12,000 tutorials a year with 94 percent of survey respondents reporting improved academic success. The tutors meet rigorous standards set by individual academic departments and are trained in a semester-long, two-credit course. The Association for the Tutoring Profession recognized the program's excellence by naming the Tutoring Center the 2014 Outstanding Tutoring Program in the nation.

UMD's campus-wide writing center, the Writers' Workshop, serves both undergraduate and graduate students as well as faculty and staff. Since opening in 2013, usage has grown steadily, nearly doubling in five years. Last year 2,620 one-to-one sessions of 30 to 60 minutes each were provided by faculty members or graduate students. About one-third of the appointments are with those whose first language is not English and nearly 40 percent are with those from underrepresented populations. Over ten percent of the appointments are with graduate students, faculty, or staff. Surveys show that 96 percent of users say they had a positive experience, and 92 percent say visiting the Writers' Workshop improved their writing skills and increased their confidence as writers. Beyond receiving individual consultations, UMD students and instructors participate in writing-related workshops held throughout the year. A full-time ESL specialist also conducts study groups and private work sessions for any member of the campus community whose first language is not English.

Attracting Outstanding Students to the Duluth Campus

The Duluth campus integrates liberal education, research, creative activity, and public engagement and prepares students to thrive as lifelong learners and globally engaged citizens. UMD's commitment to the success of undergraduate students begins with prospective student outreach and extends through recruitment, orientation, freshman seminars, academic advising, curricular and cocurricular experiences, internships, graduation, and beyond.

During 2017–2018, UMD's Strategic Enrollment Management (SEM) subcommittee completed a review of UMD's enrollment management plan to assess progress since its inception in 2013 and to identify current priorities and related strategies. The subcommittee supported this work with a review of external high school population demographic data, levers related to undergraduate enrollment, and campus enrollment key performance indicators, and conducted a SWOT analysis to identify current challenges and opportunities. An updated SEM plan was endorsed by campus leadership in April 2018. Current undergraduate enrollment priorities are highlighted in the following seven overarching themes.

1. Plan for annual incremental undergraduate growth over the next five years. Increase the total undergraduate enrollment from 9,199 (fall 2017) to approximately 9,600 to 9,800 by 2023.

2. Address capacity issues related to high-demand programs and on-campus housing. Complete an undergraduate program demand/capacity analysis by November 2018. Develop a multi-phase plan to address the current residence hall bed shortage, projected growth in undergraduate enrollment, and aging existing facilities by spring 2019.

3. Maintain commitment to transfer students. Continue to engage collegiate units and departments in creating partnerships with community college partners, identify and address any roadblocks to timely transfer course evaluations, and assess the viability of creating a transfer center.

4. Enhance affordability and access. Hold tuition and fee increases for resident undergraduate students to a minimum and ensure timely awarding and distribution of scholarship funds. Pursue supplemental need-based financial awards as funding becomes available.

5. Strengthen ethnic, social, economic, and geographic diversity. Expand involvement of diverse alumni in recruitment events and build stronger relationships with community-based organizations. Create partnerships and affiliations to enhance dual degree and transfer opportunities for international students. Build upon the work currently taking place under UMD Strategic Plan Goal 2 and the Campus Climate Initiative to create a welcoming and inclusive environment for all students.

6. Enhance support of students' initial academic success. Continue to develop unit, academic department, and course strategies to improve success rates. Develop a comprehensive strategy to support students identified as at risk for attrition. Align enrollment services and resources in order to provide a seamless transition to UMD.

7. Support timely graduation. Develop reports and tools to assist in identification of issues related to course sequencing and course offerings. Enhance services for students changing majors. Increase online course offerings to facilitate timely program completion.

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 15 bachelor's degrees in 91 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 25 fields and three 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 Minnesota.

Athletics and Recreation

UMD student-athletes focus on three key areas: classroom, community, and competition. The 2017–2018 year brought great competitive success for Bulldog programs, while concurrently setting new records in academics and volunteerism. UMD student-athlete highlights from the past year include:

- a record-setting grade point average of 3.25

- 94 percent graduation rate
- 132 student-athletes achieved GPAs of 3.50 or above and 15 turned in perfect 4.00 marks
- a program-best eight Academic All-Americans for the 2017–2018 season
- UMD student-athletes, coaches, and staff logged over 3,600 hours of community service during the 2017–2018 athletic season
- UMD softball recorded its best season in Bulldog history (Regional Champions)
- Two Bulldogs played on the gold-medal-winning USA women's hockey team in the 2018 Olympics
- UMD men's hockey won the 2018 Division 1 National Championship

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, climbing, environmental education, and outdoor trips. Over 90 percent of UMD students take advantage of 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 2017. 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

As Figure 4-G shows, the Duluth campus awarded 18 percent more degrees in 2017–18 than in 2007–2008. UMD conducts an annual survey of graduates, with the most recent report showing that 96 percent of

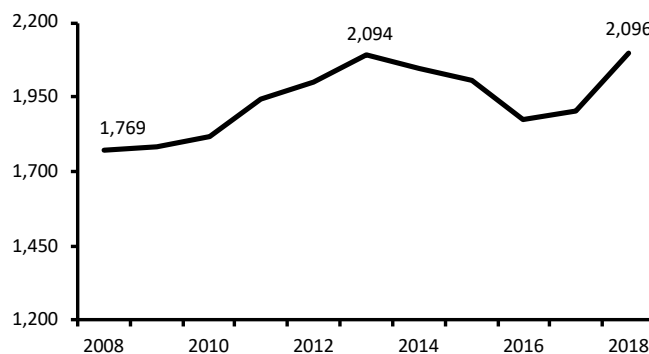
UMD grads are successful in employment or in continuing their education in their first year after graduation. Other findings include:

- 90 percent indicated their employment is related or somewhat related to their major
- 48 percent said they had completed an internship
- 84 percent reported accepting employment in Minnesota

As evidenced in the Strategic Enrollment Management Plan, UMD continues its commitment to improve student retention and graduation rates (see Figure 4-H and Figure 4-I) (**Progress Card measure**). The UMD Action Plan for Student Retention lists more than sixty course, department, and unit initiatives supporting improved first- and second-year persistence. Work is underway to expand initiatives that demonstrate improved student outcomes. As one example, the College of Education and Human Service Professions (CEHSP) implemented a strengths-based initiative in 2016. This initiative, which focused on first-year undeclared students, tracked the retention rates of the CEHSP participants and found that participants had nearly a seven percent higher retention rate than the general CEHSP cohort. Based on this success, UMD is launching an expanded strengths-based initiative in fall 2018 serving more new high school students.

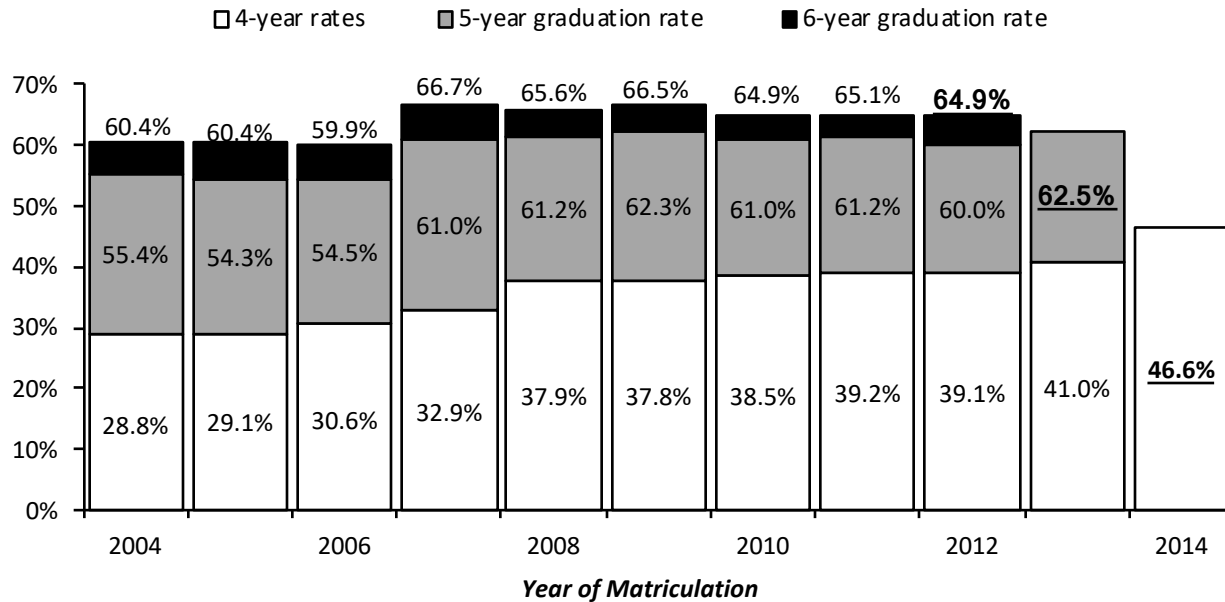
Table 4-5 shows how the Duluth campus compares with its peer group institutions, using rates for the class matriculating in 2010, the most current data available.

Figure 4-G. Undergraduate degrees awarded, Duluth campus, 2008–2018



Source: Office of Institutional Research, University of Minnesota

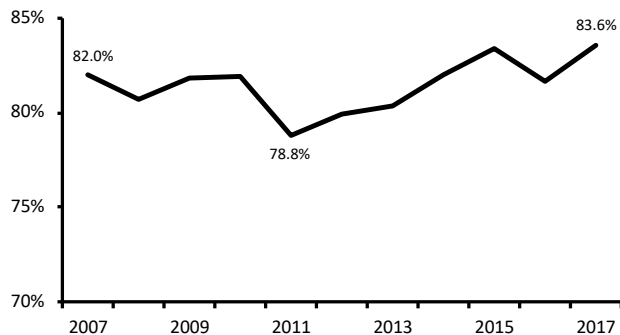
Figure 4-H. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Duluth campus, classes matriculating in 2004–2014



*Rates include graduates who transferred to another University of Minnesota campus. Graduation rates displayed in Table 4-5 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 4-5.

Source: Office of Institutional Research, University of Minnesota

Figure 4-I. First-year retention rates of first-time, full-time undergraduate students, Duluth campus, classes matriculating in 2007–2017



Source: Office of Institutional Research, University of Minnesota

Table 4-5. Six-year graduation rates (class matriculating in 2010), Duluth campus and comparison group institutions

	6-year Graduation Rate	Institutional Rank
CA Poly. State U.–San Luis Obispo	80%	1
Col. of Charleston	69%	2
Western Washington U.	69%	2
U. of Northern Iowa	65%	4
U. of Minnesota–Duluth	59%	5
U. of N.C.–Charlotte	57%	6
South Dakota State U.	54%	7
U. of Michigan–Dearborn	54%	7
Western Michigan U.	53%	9
Minnesota State U.–Mankato	50%	10
U. of Mass.–Dartmouth	48%	11
Southern Illinois U.–Edwardsville	47%	12
Comparison Group Average	59%	-

See footnote on Figure 4-H.

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 2017, the 130 Morris campus faculty members achieved over 120 research and creative activity accomplishments, including 84 refereed journal articles—many with students as coauthors—and four academic books.

Maintaining Access to the Morris Campus

Enrollment Strategy

The Morris campus’s enrollment goals and strategies are being revisited as part of the strategic planning process that began fall 2017. The campus is also actively participating in the Systemwide Enrollment Management Taskforce. Morris’s current enrollment 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 of 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.

Accessible to Minnesotans

The Morris campus is accessible to Minnesota students, many from traditionally underserved backgrounds. In fall 2018, nearly 75 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 typically has—however there are fewer rural high schools and regional graduates than there were when the Morris campus opened in 1960.

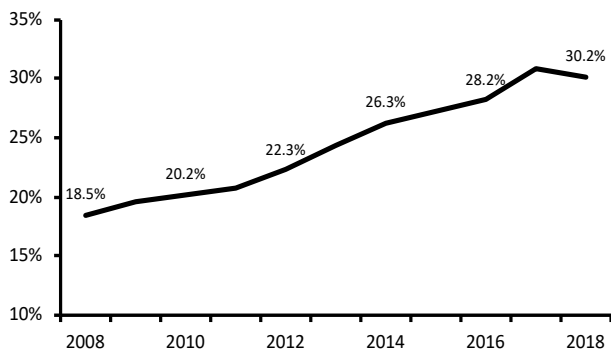
Accessibility and Underserved Student Populations

In fall 2018, 30 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-J). 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 41 percent of new students in fall 2018. 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.

Thirty-four percent of the Morris campus's 2018 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

Figure 4-J. Percent undergraduate students of color by fall term, Morris campus, 2008–2018



Source: Office of Institutional Research, University of Minnesota

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 contribute to student success, persistence, and retention.

Access and Affordability

Morris serves an increasing number of students with financial need. In fall 2018, over 30 percent of Morris students received Pell Grants, compared to about a quarter of students in fall 2008. In fall 2018, 88 percent of Morris students received financial aid. 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

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, one Morris student was awarded a Udall Scholarship, and four Morris students were awarded Fulbright scholarships. In 2018, an additional three Morris students were awarded Fulbright scholarships and one student was awarded a Boren scholarship for Urdu language acquisition and Indian cultural study.

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 20 consecutive years; by the Sierra Club’s *Sierra* magazine as a top-40 “Cool School” for six consecutive years (2018); in the *Forbes* annual ranking for best colleges and universities in the nation (2018); and by Fiske in its annual guide to “the best and most interesting” schools in the United States, Canada, and the United Kingdom (2019).

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 13:1, 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 4-6. 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 cocurricular 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 community-engaged 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, and community-engaged learning students serving at a variety of sites, including the Morris Public Library, the Morris Area School District, 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 a variety of funding mechanisms.

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

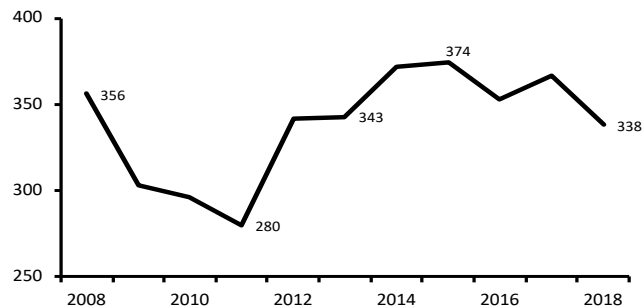
Ninety-five percent of Morris students who graduated in 2017 indicated that they were employed and/or in graduate or professional school one year after graduation; nearly one-fourth of Morris students proceed directly to graduate and professional school following graduation. Figure 4-K shows the total 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-L). 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. 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 began 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.

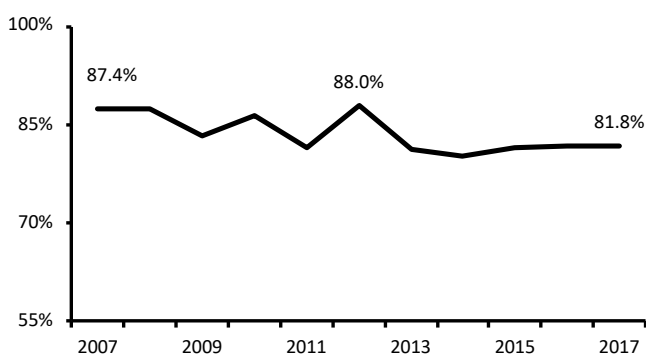
Graduation rates continue to be high when compared to many other public, four-year baccalaureate institutions, especially when characteristics of the student population are taken into account (**Progress Card Measure**). A Midwestern Higher

Figure 4-K. Undergraduate degrees awarded, Morris campus, 2008–2018



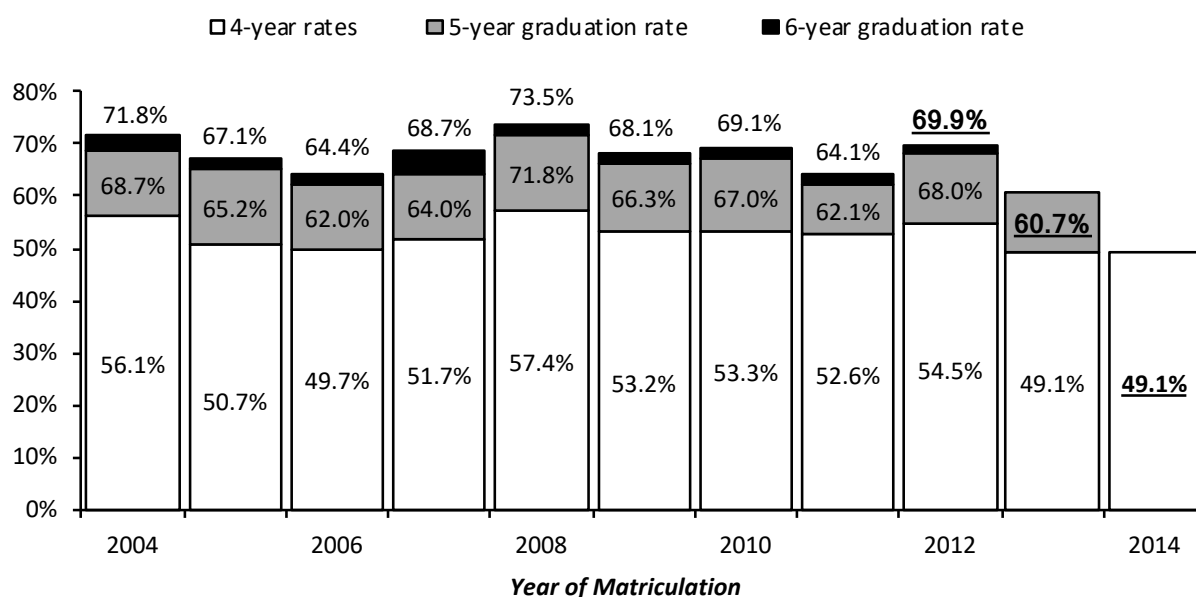
Source: Office of Institutional Research, University of Minnesota

Figure 4-L. First-year retention rates of first-time, full-time undergraduate students, Morris campus, classes matriculating in 2007–2017



Source: Office of Institutional Research, University of Minnesota

Figure 4-M. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Morris campus, classes matriculating in 2004–2014



*Rates include graduates who transferred to another University of Minnesota campus. Graduation rates displayed in Table 4-7 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 4-7.

Source: Office of Institutional Research, University of Minnesota

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 2014 four-year graduation rate of 49 percent and six-year rate of 70 percent are lower than campus goals, although comparable to peer institutions (Figure 4-M). Table 4-7 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 2010, the most current data available.

Table 4-7. Six-year graduation rates (class matriculating in 2010), Morris campus and comparison group institutions

	6-year Graduation Rate	Institutional Control	Institutional Rank
Concordia Col.–Moorhead	73%	Private	1
St. Mary's Col. of Maryland	73%	Public	1
Lycoming Col.	72%	Private	3
Albion Col.	71%	Private	4
Coe Col.	67%	Private	5
U. of Minnesota–Morris	64%	Public	6
SUNY at Purchase Col.	62%	Public	7
U. of N.C.–Asheville	62%	Public	7
U. of Maine–Farmington	56%	Public	9
Mass. Col. of Liberal Arts	53%	Public	10
U. of Virginia's Col. at Wise	41%	Public	11
Comparable Group Average	63%	-	-
Aspirational Peer Average*	85%	Private	-

See footnote on Figure 4-M

Source: Integrated Postsecondary Education Data System (IPEDS)

*Aspirational peer institutions: Macalester College (88%), St. Olaf College (88%), DePauw University (85%), Gustavus Adolphus College (81%), Kalamazoo College (81%)

CROOKSTON CAMPUS

The Crookston campus has a history of serving the needs of rural Minnesota. First as a residential agricultural high school (1906–1968), and later as a two-year technical college (1966–1993) before transitioning to a baccalaureate degree-granting institution in fall 1993. Crookston offers educational opportunities within the context of the University’s land-grant mission.

The Crookston campus was ranked among the top 100 Baccalaureate Colleges in the U.S. by *Washington Monthly* in its 2018 College Guide. The campus’s rank of 85 was its highest ranking to date and Crookston is the only Minnesota college in the top 100 on that list. *Money* magazine named the campus to its Best Colleges list for 2018–2019, ranking it number 190 on the list of the 727 best colleges in America. In the 2019 *U.S. News and World Report* “Midwest Top Public Regional Colleges” category, Crookston garnered the number two spot; the campus has ranked in the top four for 22 consecutive years.

Maintaining Access to the Crookston Campus

The Crookston campus serves as an access point to the University in the northwest corner of the state. The campus offers programs known for experiential learning and a focus on career preparedness. Students who choose Crookston seek a supportive, small-campus experience, a distinctive academic program, and/or the opportunity to learn online—all while earning a degree with the prestige of the University of Minnesota.

Serving Minnesota

In fall 2018, Minnesota residents comprised 69 percent of on-campus, degree-seeking students; 48 percent of on-campus students come from greater Minnesota and 16 percent from the seven-county Twin Cities metro area. Seventy-two percent of online students are Minnesota residents.

Recruiting from the pool of those students declined admission to the Twin Cities and Duluth campuses, the Crookston campus enrolled ten additional students in fall 2018. Those students, interested in earning a

degree from the University of Minnesota, were willing to seek education on another campus in the system. Offering admission to the Crookston campus kept these students in the state of Minnesota and in the University system.

Dual enrollment agreements at Crookston enhance opportunities for regional students to earn a four-year degree. An August 2018 agreement with Red Lake Nation College (RLNC) offers academically qualified RLNC students dual admission to the Crookston campus with the goal of working toward a bachelor’s degree. The agreement established the “Azhoogan Program,” incorporating the Ojibwe word for “bridge.” Among the bachelor’s degree programs that best match the priorities and coursework at RLNC are horticulture, natural resources, business, and agricultural business, but RLNC students may choose to pursue their academic interests in any program. Faculty from both RLNC and the Crookston campus will have opportunities for sharing and jointly developing and aligning curriculum to advance quality and efficiency.

Another dual enrollment program, established in 2018 with Northland Community and Technical College (NCTC), allows NCTC students to be admitted at Crookston through identified dual admission programs. Select programs in agriculture at NCTC and Crookston, specifically involving agricultural education and animal science, are the first to utilize the NorthernConnect Dual Admission Program.

Crookston faculty research involving the study of freshwater sponges as an indicator of water quality has potential impact across the state. There has been significant interest among citizen-scientists in identifying locations of these freshwater sponges, and their efforts provide valuable information on the rivers, streams, and lakes where the sponges exist. The work also involves a number of undergraduate students in the search for these non-moving invertebrates living at the bottom of bodies of water; students are also engaged in the laboratory, examining both the sponge and the water it lives in.

Students in landscape design were responsible for the planning of pollinator gardens in Hallock, Minnesota, working cooperatively with the Northwest Minnesota Sustainable Development Partnership, the Northwest

Minnesota Foundation, and the city of Hallock. The first of the gardens was completed in summer 2018.

A longstanding tradition on campus includes natural resources students who have planted trees in the Chippewa National Forest and marked the 36th anniversary in spring 2018. Natural resources students are also involved in duck banding efforts as well as bud capping pines at Itasca State Park and the Chippewa National Forest. These experiences benefit the state and allow students significant hands-on experience within a major.

Affordability

Of 2016–2017 Crookston graduates, 31 percent completed with no debt, and those with debt averaged \$24,432, which is one of the lowest average student debt figures in Minnesota, as well as one of the lowest average student debt figures for all public institutions in the United States. Specifically, the Crookston campus ranked fifth among public and private institutions of higher education in Minnesota in terms of having the lowest average student debt figures and 184th among the “Public Top 200 Lowest Debt” public colleges and universities in the nation.

In fall 2018, students enrolled at Crookston come from families with an average annual household income of \$68,000. Additionally, 35 percent receive the need-based federal Pell Grant and 45 percent are first-generation college students

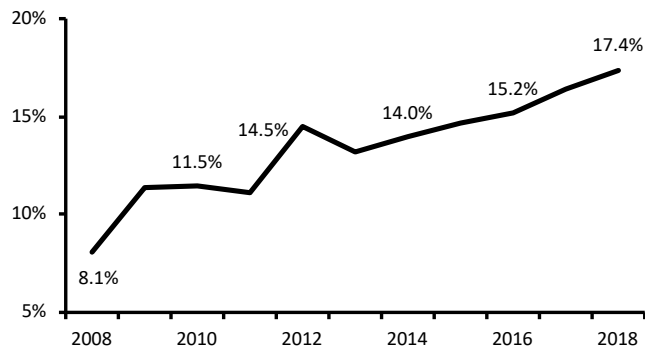
Diversity

Creating pathways for students from diverse backgrounds and locations is and has been a tenet of the work at Crookston. Offering both on-campus and online options for students as well as a lower tuition rate provide greater access to distinctive programs, talented faculty, and hands-on learning opportunities through internships and classroom experiences, all of which leads to a University of Minnesota degree.

As shown in Figure 4-N, 17 percent of Crookston’s degree-seeking students identify as students of color, and Crookston’s student body includes representation from 40 countries.

In addition, the campus has a long history of serving a significant number of first-generation students and

Figure 4-N. Percent undergraduate students of color by fall term, Crookston campus, 2008–2018



Source: Office of Institutional Research, University of Minnesota

students from low socio-economic backgrounds. With its core values of diversity and student success, the Crookston campus recruits these students with intentionality and prioritizes integrating diversity, equity, and inclusion into the campus environment and programming. The goal is to close the graduation gap seen between students of color and white students while increasing graduation rates for all students.

While the campus brings greater diversity to the region overall, it underserves the populations in the region’s public schools. The local high school has a population that is 23 percent Latinx. In an effort to create pathways for this growing community, and to build and sustain outreach efforts with communities of color, a task force was established to study the investments necessary to serve the region’s Latinx high school graduates. An investigation into establishing possible partnerships with local K–12 education providers in support of these students is ongoing.

Online programming

In keeping with a modern-day vision of a land-grant institution, the Crookston campus offers a personalized online experience to more than 50 percent of the students it serves. The same dedicated and talented on-campus faculty teach online, allowing content and rigor to remain consistent across programs. The 16 online degree programs allow greater access to a population that is, typically, older than average, limited by location, and living around the state. While the average age of an on-campus student is 20.6, the average age of an online student

is 31.8. These online degree programs allow working professionals the opportunity to complete their bachelor's degree and advance within their career path when traditional programs don't meet their needs.

In fall 2018, 72 percent of the campus's online students reside in Minnesota, with 39 percent located in the Twin Cities metro area. Seventy-seven percent are over age 25; these students are enrolled in an average of nine credits and they are typically employed. Most have already completed a significant number of college credits, transferring in an average of 67. There is rich diversity among Crookston's online students, with 18 percent identifying as students of color and 29 countries represented.

Attracting Outstanding Students to the Crookston Campus

The successful student at Crookston is not necessarily defined by the highest ACT score but rather by a higher grade point average and greater involvement in high school. These students engage in campus life, maintain their achievement academically, and are looking for and finding leadership opportunities.

Of those freshmen responding to Crookston's new student survey in fall 2018, 84 percent indicated the size of the campus was a reason for selecting the Crookston campus, 72 percent indicated that Crookston was their first-choice college, and 76 percent indicated the type of academic programs available was a reason.

Unique academic programs offered at Crookston attract students choosing these fields. Crookston offers opportunities to study equine science, horticulture, and agronomy. Crookston has one of the only four-year degree programs focused in agricultural aviation in the country, and the only baccalaureate criminal justice degree leading to Minnesota police officer certification. The health management program recently received accreditation from the National Association of Long Term Care Administration Boards and provides a nationally recognized program in nursing home administration.

Expanded offerings for students in agriculture, a core component of the Crookston portfolio, include

a new major in agricultural communication blending agriculture, communication, and liberal education courses that prepare graduates for a wide variety of careers. Online students have a new option to pursue a major in agricultural business, the first online degree available in agriculture.

The Crookston campus is using its hands-on approach to learning to attract students. High school students interested in equine science or animal science participated in successful "Exploration Days" during a weekend filled with experiences similar to those of a full-time student. Other activities such as hosting high school students for Agriculture and Natural Resources Activities Day have been taking place for more than 30 years. The inaugural Northern Great Plains Youth Institute brought high school students to campus to present research and recommendations on ways to solve key global challenges. The Western Regional Science Fair, hosted at the Crookston campus, serves northwest Minnesota students in grades 6–12, and more than 50 students in grades 3–12 participated in a summer robotics camp.

Since 1999, the Crookston campus has been a member of the Northern Sun Intercollegiate Conference for Division II athletics. The eleven athletic teams make up 33 percent of the student body and had a significant impact on campus diversity. Of the 276 student-athletes, 24 percent identify as students of color. Student-athletes also maintain a higher grade point average than non-athletes (2.93 versus 2.85).

The Crookston volleyball program earned the American Volleyball Coaches Association Team Academic Award, maintaining a 3.86 grade point average during the 2017–2018 academic year. The National Association of Basketball Coaches (NABC) named the sixth annual Team Academic Excellence Awards recognizing outstanding academic achievement by a team with a cumulative grade point average of 3.0 or better for the 2017–2018 season. Crookston was one of eight Northern Sun Intercollegiate Conference institutions to earn the NABC Team Academic Excellence Award. Men's basketball also had five players named to the NABC Honors Court.

Offering a Great Student Experience on the Crookston Campus

Small class sizes support students, enrich their academic lives, and give them greater access to faculty members for personalized advising and mentorship. Opportunities in athletics, undergraduate research, and study abroad allow students to deepen their learning and develop skills for their future. These efforts are designed to promote student success and improve retention.

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 quality educational experience and tutoring is available for both on-campus and online students through the Academic Success Center.

A student-to-faculty ratio of 16:1 allows students greater access and opportunity to be involved in faculty-student research and creative works projects. Students attend and present at professional conferences along with their faculty mentor, leading to greater learning, wider networking, and a catalyst for meaningful internships, potential employment, and increased access to graduate or professional school.

Technology continues to be integrated into all aspects of learning at Crookston. During the 2017–2018 academic year, Crookston reviewed the student laptop program, instituted in 1993, and affirmed its success. Overall, the laptops remain highly beneficial to students, faculty, and employers. The program offers consistent and equal access to technology to all students. Following the review, work has begun on a fee-based solution for making the program more financially stable.

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 it has significant potential to draw talented students.

Cocurricular 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.

Crookston is the first system campus to participate in the Esusu financial literacy project. The program offered its inaugural sessions in fall 2018 as part of a chancellor's initiative to reach all students; it covers topics like personal finance, taxes, and student loans.

Five business students participated for the second time in the 2018 Harvard Global Case Competition, culminating in a trip to Harvard University and extensive networking opportunities. Business students are encouraged to participate in the Business Crew (B-Crew), an initiative focused on providing extra-curricular and cocurricular experiences outside the classroom, enriching the student experience.

Niche ranked Crookston fourth on its “Best College Dorms in Minnesota” list. The campus earned a grade of “A” for its residence halls and was also recognized as number seven on the “Best College Dorms in America” list. *Niche* also named Crookston as one of the 2019 Safest College Campuses in America, based on key statistics and student reviews using data from the U.S. Department of Education.

The Center for Collaborative Research, opened in fall 2018, is the first self-contained facility on the Crookston campus allowing work in analytical chemistry, microbiology, and molecular/cellular biology to be carried out from start to finish and support much-needed laboratory space vital to faculty research. This applied research, which is often based in the faculty member's discipline, contributes directly to Crookston students' learning experience while

also disseminating pedagogical insights through publications and presentations.

Support for creative works projects spurred student and faculty research in the liberal arts, including the topic of social media and its influence on grade point average. The research resulted in a poster included in the University's Undergraduate Research Symposium, while another project examining social media influence on relationships was one of the presentations at the National Conference on Undergraduate Research held in spring 2018.

Preparing Crookston Campus Graduates for Success

Crookston continues work to improve retention (Figure 4-O) and graduation rates (**Progress Card measure**). Over the 2017–2018 academic year, 405 bachelor's degrees and 20 certificates were awarded (Figure 4-P). Crookston's four-year and six-year graduation rates continue to outpace those recorded ten years ago (Figure 4-Q) and put the campus at the top of its peer institution group (Table 4-8).

While experiencing positive graduation trends, Crookston strives to further improve retention and graduation rates. For example, the campus has just begun year three of the Higher Learning Commission's Persistence and Completion Academy. Participation has led Crookston to identify high school grade point average as a better predictor of graduation success over ACT score. As a result, admissions criteria were modified. Additionally, a first-year-experience course is being developed that will focus on academic success strategies and career planning. The intent is to require this course be taken by all new freshmen beginning in fall 2019.

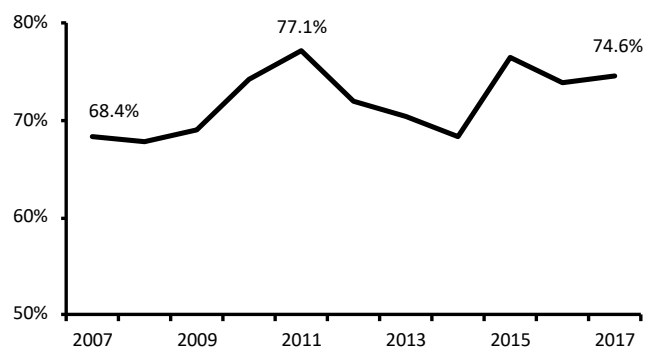
The Crookston campus emphasizes career readiness. An internship requirement for all undergraduates gives students real-world, professional experience beyond the classroom. Many programs integrate real-world examples of learning into their curriculum. Feedback to improve programs and to learn what employers need from graduates is provided through the Program Improvement Audit Committees in each program. Input from individuals working in the field

provides faculty information pertinent to developing curriculum that is both relevant and substantive.

The Campus Advisory and Advancement Board, made up of professionals including several alumni from across the region and state, seeks ways to improve student and alumni success, identify high-priority programs and initiatives, support advancement, and enhance campus partnerships and service to the community, region, and beyond.

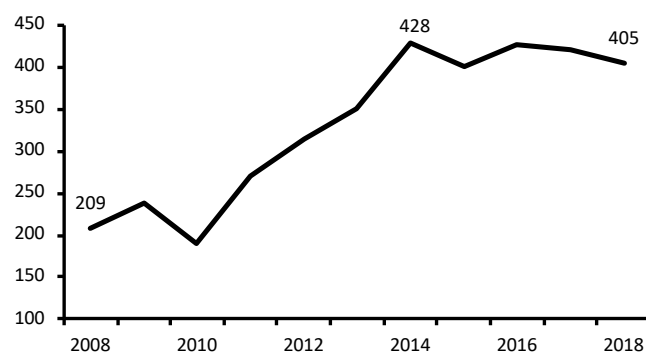
While the Crookston campus emphasizes workplace preparedness and focuses on graduating students who are career ready, a growing number of incoming Crookston students intend to further their education upon graduation. Thirty-four percent of freshmen entering in fall 2018 indicate their intent to continue in graduate study following completion of their baccalaureate degree; ten years ago, just one in five indicated such intentions.

Figure 4-O. First-year retention rates of first-time, full-time undergraduate students, Crookston campus, classes matriculating in 2007–2017



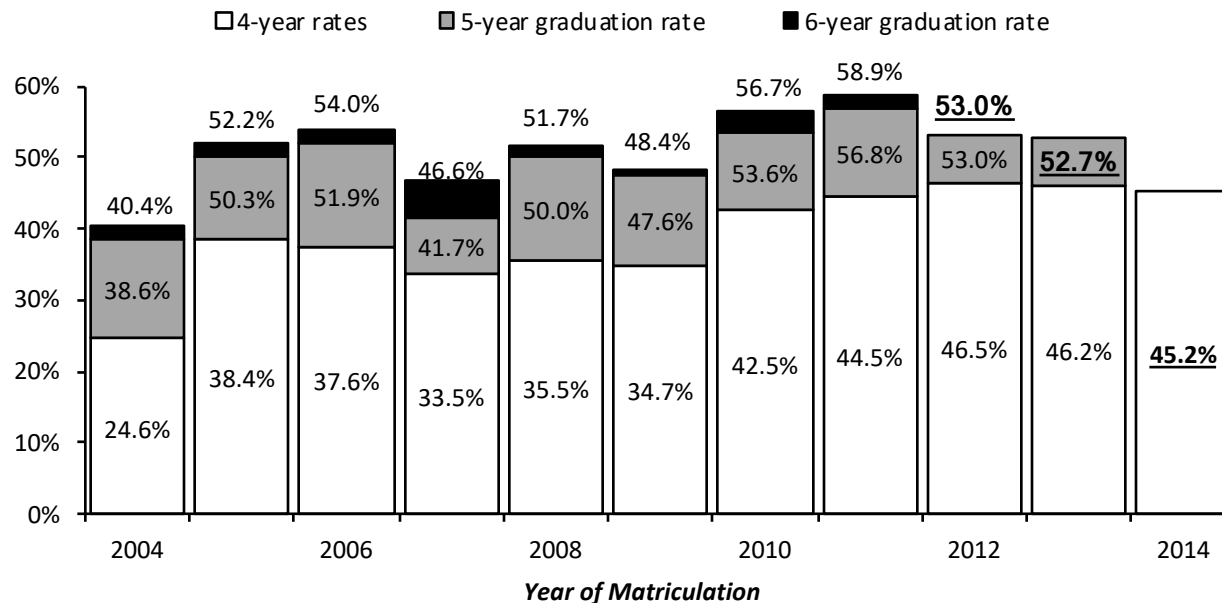
Source: Office of Institutional Research, University of Minnesota

Figure 4-P. Undergraduate degrees awarded, Crookston campus, 2008–2018



Source: Office of Institutional Research, University of Minnesota

Figure 4-Q. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Crookston campus, classes matriculating in 2004–2014



*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

Table 4-8. Six-year graduation rates (class matriculating in 2010), Crookston campus and comparison group institutions

	6-year Graduation Rate	Institutional Rank
U. of Minnesota–Crookston	54%	1
U. of Wisconsin–Platteville	54%	1
U. of Wisconsin–River Falls	54%	1
U. of Pittsburgh–Johnstown	53%	4
SUNY Col. of A&T at Cobleskill	51%	5
Northern State U.	50%	6
Southwest Minnesota State U.	50%	6
U. of Tennessee–Martin	50%	6
Northwest Missouri State U.	49%	9
Lake Superior State U.	42%	10
Indiana U.–Kokomo	39%	11
Northwestern Oklahoma State U.	26%	12
Comparison Group Average	48%	-

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

ROCHESTER CAMPUS

At the University of Minnesota Rochester, relationships drive today's student success for tomorrow's health innovation. The campus is distinctive in its approach to undergraduate education and research, with faculty engaged in educational inquiry that informs pedagogical and curricular practice. With an academic focus in the health sciences, students complete a foundational set of integrated core courses and an individualized capstone in one of six health career pathways: patient care; research and discovery; emerging health technologies; resilience, well-being, and mental health; the business and leadership of healthcare; and public policy and global health. All students progress toward defined learning and development outcomes, engaging in all of 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. Additional practices driving student success include student success coaches, the Just Ask Center for faculty-student interaction, and living, learning communities.

Offering a Great Student Experience on the Rochester Campus

Extraordinary Core Curriculum and Research-Fueled Instruction

Pedagogical decisions are made based on teaching and learning research, which has led faculty and staff to focus on the quality of relationships between educators and students and among student peers. The student experience is characterized by a number of distinct aspects:

- Collaborative, flipped, and active learning are routine, replacing traditional lecture formats not supported by research on long-term memory.
- Rigor begins on day one. For example, first-year students start with organic chemistry

and statistics, and engage in original research presented at a first-year symposium.

- Relevance and efficiency are standard, with healthcare contextualization in all coursework and learning outcomes aligned with employers' needs.
- Academic support is personal and available in the Just Ask Center staffed by teaching and subject-matter specialists.
- Student development support is personal and available with the distinctive student success coaching model and a focus on wellbeing that is integrated into curricular and cocurricular endeavors.
- Collaborative, interdisciplinary teaching teams enhance student learning and development.
- Writing instruction is integrated into the curriculum and supported by writing specialists.
- Community-based learning is valued and thus required, and intercultural learning is advanced through a comprehensive, intentional approach.
- Covenant-based living, learning communities support student belonging, accountability, and leadership development.
- 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 and aligned with a specific health career pathway. From one efficient, innovative undergraduate degree, unlimited healthcare careers in high-demand arenas are possible. This individualized capstone approach allows for ongoing adaptation as workforce demand in the health industry changes rapidly.

Extraordinary Expectations for Success and Evidence-Driven Decisions

With a highly diverse student body, this visionary, strategic campus has no achievement gap to date, and is seeking to sustain that outcome while faculty investigate the combination of practices that are driving this success. Each student's distinctive undergraduate educational journey is guided by a success coach, with student learning and development outcomes assessed in both curricular and cocurricular endeavors. Results of faculty research are informing revisions of student outcomes, an assessment plan, and the campus approach to optimizing distinctive sets of high-impact practices.

Expanding Access to the Rochester Campus

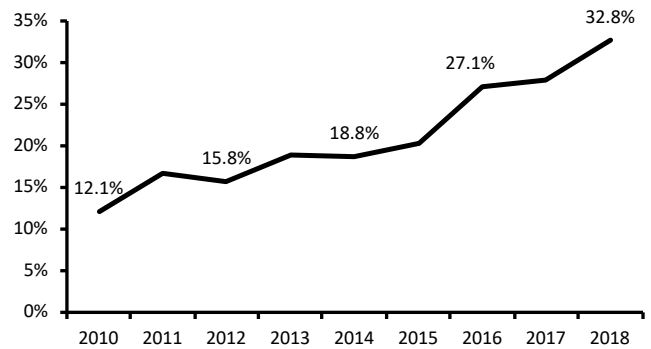
A grand challenge for the healthcare industry is diversifying the workforce. According to a U.S. Department of Health and Human Services report, one of the most compelling reasons is that a “more diverse health professions workforce ... will lead to improvements in public health” (2006).

Supporting diversity in the professional healthcare workforce 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. As depicted in Figure 4-R, the Rochester campus has a diverse student body reflecting its grounding values of human potential, diversity and inclusion, community, respect, and evidence-based decision-making.

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

Figure 4-R. Percent undergraduate students of color by fall term, Rochester campus, 2009–2018



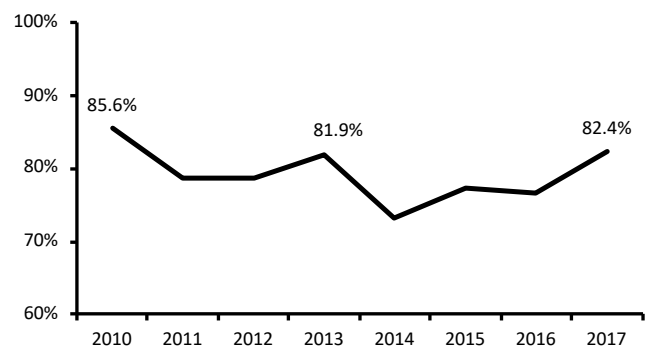
Source: Office of Institutional Research, University of Minnesota

success. In addition, the campus supports multiple covenant-based living, learning communities that increase students' sense of belonging and accountability—two key variables for the success of traditionally aged undergraduate students.

All Rochester students complete a series of courses designed to support student success, professional exploration, and other developmental outcomes. Students who transfer into 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 transfer coach to serve their specific needs. Retention rates (Figure 4-S) are one indication of this accessibility and academic support.

The Rochester campus is also focused on promoting an environment of health and well-being, important to the integrity of a health-focused campus located in a

Figure 4-S. First-year retention rates of first-time, full-time undergraduate students, Rochester campus, classes matriculating in 2009–2017



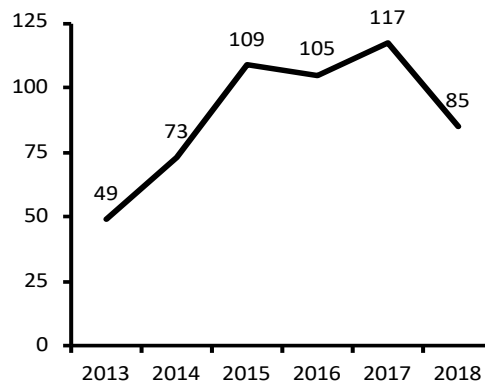
Source: Office of Institutional Research, University of Minnesota

health-focused city. To support students, the campus has hired a licensed psychologist to provide student counseling, intervention, crisis response, training, and education on the issues of mental health, while health and well-being are emphasized in all aspects of campus life.

Preparing Rochester Campus Graduates for Success

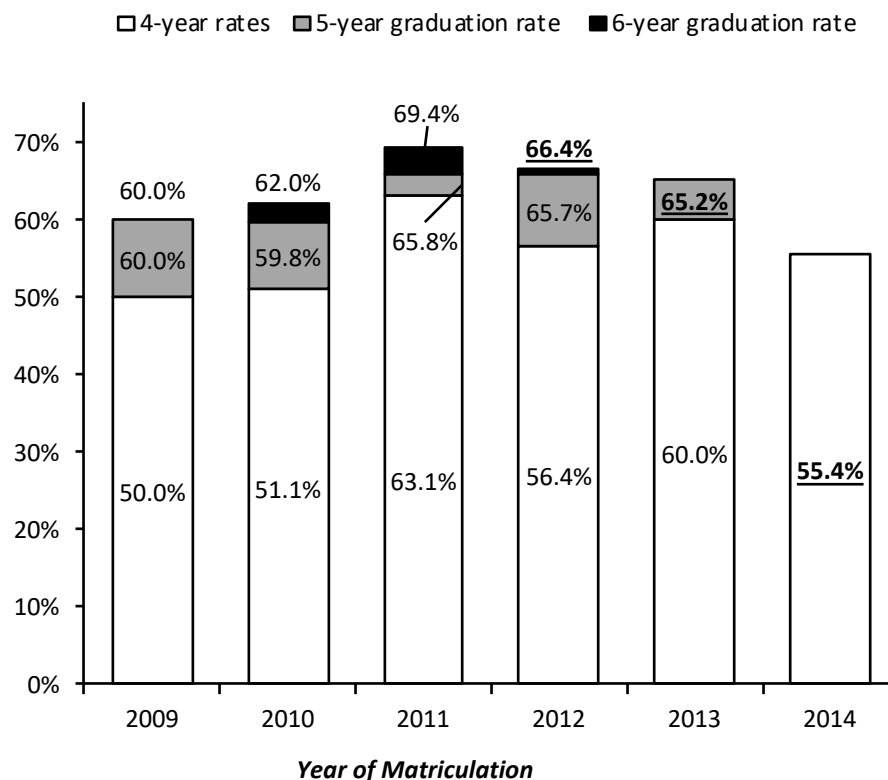
Six classes of students have now graduated from Rochester. Figure 4-T indicates the numbers of degrees awarded, with increases expected moving forward. Of the students who have graduated in the first six classes, more than 90 percent have “finished in four,” a commitment central to the Rochester approach to undergraduate education (Figure 4-U) (**Progress Card Measure**).

Figure 4-T. Undergraduate degrees awarded, Rochester campus, 2013–2018



Source: Office of Institutional Research, University of Minnesota

Figure 4-U. Four-, five-, and six-year graduation rates of first-time, full-time undergraduate students, Rochester campus, classes matriculating in 2009–2014



*Rates include graduates who transferred to another University of Minnesota campus.
Source: Office of Institutional Research, University of Minnesota

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

- **Patient Care:** medicine, dentistry, pharmacy, occupational therapy, physical therapy, nurse practitioner, physician's assistant, medical scribe.
- **Healthcare Research and Discovery:** Ph.D.s in a wide range of arenas addressing the grand health challenges of the twenty-first century including genomics, chemistry, biochemistry, epidemiology.
- **Emerging Health Technologies:** bioinformatics, artificial intelligence, medical lab science, biomedical engineering, electronic medical records.
- **Resilience, Well-being, and Mental Health:** social work, counseling psychology, addiction and recovery counseling, health and wellness coaching, integrative medicine.
- **The Business and Leadership of Healthcare:** healthcare administration, healthcare policy, MBA in health innovation.
- **Public Policy and Global Health:** law school, elected office, global health educator, public health educator.

Extraordinary Future UMR 2.0

In the first ten years of serving students, the Rochester campus has established nationally distinctive outcomes and a research-based 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 the campus's strategic plan, Rochester 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 and will construct a long-range plan for scaling the campus;
- to further serve student learning and development, the campus will explore additional avenues for University system partnerships to expand graduate and professional school pathways to high-demand health careers; community partnerships to enhance community-based learning; and industry partnerships to connect healthcare employers directly to their future workforce;
- to further student academic achievement while addressing the challenges of higher education, the Rochester campus will document, assess, enhance, and share its pedagogical innovation with a longitudinal study to determine the source of success with underrepresented students; 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 biennial Higher Education Innovation Summit based on the success of the first summit, held in June 2018 and drawing participants from 30 institutions and three countries.

Graduate Education

Graduate education and postdoctoral training—defined as degree programs and postdoctoral positions that are primarily focused on research or creative activity—are essential to the University’s impact on the state and nation, as well as its standing as a world-class institution (for more about professional programs, whose graduates most often seek applied professional or practice-based employment, see the next chapter). 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 service, the arts, and nonprofit work.

A common misconception of graduate education and postdoctoral training is that it exists primarily to train the next generation of faculty. In fact, less than half of graduate students and postdoctoral scholars will pursue careers in academia. While graduate students and postdoctoral scholars are clearly part of a particular discipline and scholarly community, the exact career paths that follow their studies or training are quite variable.

To assist colleges in developing and maintaining excellent programs that prepare graduate students and postdoctoral scholars to be successful in whatever paths they choose, the Graduate School recently completed a five-year strategic plan. The plan identifies four strategic objectives to facilitate and advocate for excellence in graduate education and postdoctoral training:

- increase the diversity of students receiving graduate degrees and postdoctoral training;
- increase innovation of best practices in graduate education and postdoctoral training;
- advocate for, recognize, support, and reward excellence in graduate education and postdoctoral training; and

- provide consistently exceptional service to graduate students, postdoctoral scholars, graduate programs, colleges, and campuses.

The Graduate School has developed a number of new initiatives which, along with ongoing programs and projects, support these strategic objectives.

Attracting Students

Recruiting and Retaining Outstanding Students from Diverse Populations

The Graduate School promotes a vibrant student body and a welcoming campus climate in order to accelerate the diversity of thought, varied career paths, and cross-disciplinary dialogue that contribute to a quality education and the strength of discoveries.

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. For example, 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. During 2018, 21 students received DOVE Fellowships.

As successful as the DOVE program has been, however, admitting a single DOVE fellow to a graduate program is unlikely to lead to a sustained increase in diversity. To assist programs in their efforts to increase and sustain the diversity of students receiving graduate degrees, the Graduate School piloted a new recruitment initiative in 2018. This pilot program provided each selected graduate program with multiple recruiting fellowships to students

from underrepresented communities in one year. Seven programs from five colleges were selected to participate in the pilot project. Of 42 fellowship offers made, 24 were accepted.

Following this successful pilot, the Graduate School established the Creating Inclusive Cohorts (CIC) Training Program. Through the CIC, the Graduate School will provide each selected graduate program with multiple recruiting fellowships for students from underrepresented communities in one year, as well as assistance to the program in recruitment. Similar to a training grant, the program will also be expected to develop specific support and training to the recruited cohort of students to enhance student retention and graduation. The Graduate School Diversity Office will work with the participating graduate programs to develop supportive local communities that will promote excellence through diversity. The Graduate School's goal with the Creating Inclusive Cohorts Training Program is to increase the likelihood that graduate programs will experience increased future success in matriculating and graduating students from underrepresented populations. Each program will be able to offer a Graduate School Fellowship to six admitted students, with the expectation that a minimum of three students will be successfully recruited to the program as a cohort.

During the summer, Regional McNair Scholars from surrounding institutions are invited to a Graduate School Visitation Program on the Twin Cities campus. 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. 225 McNair Scholars—a record number—visited the Twin Cities campus during three separate events in 2018.

Nationally, in 2016 42 percent of Ph.D.s were awarded to non-white students. Table 4-9 shows that from 2008–2009 to 2015–2016, the University experienced a 5.8 percent drop (from 903 to 851) in the number of enrolled graduate students from these communities. Since the reorganization of administrative support for graduate and professional programs and the development of the Graduate School's focus on diversity, the number of enrolled students from these communities has risen 11.6 percent from 851 to 950.

Funding Support

Competitive financial support is critical for the recruitment and retention of high-quality students and contributes to a great student experience (see Table 4-10). 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.

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

Table 4-9. Enrollment in graduate degree programs by ethnicity, University of Minnesota, 2008–2018

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	10-year change
Am. Indian	70	66	60	68	71	76	73	76	85	94	101	44.3%
Asian	450	453	448	449	465	456	441	411	398	410	424	-5.8%
Black	211	195	181	181	159	161	151	149	156	173	187	-11.4%
Hawaiian-Pac. Islander	3	3	2	6	5	8	7	10	8	6	8	166.7%
Hispanic	181	186	187	182	185	179	181	192	204	218	230	27.1%
Total	915	903	878	886	885	880	853	838	851	901	950	3.8%

Source: Graduate School, University of Minnesota

Table 4-10. Total funding for graduate assistants, fellows, and trainees based on expenditures, fiscal years 2014–2018

	FY14	FY15	FY16	FY17	FY18	5-year change
O&M	\$78,387,582	\$83,807,619	\$85,717,270	\$90,191,713	\$92,742,528.60	+16.1%
Sponsored	\$56,448,220	\$57,063,613	\$60,004,779	\$62,755,976	\$28,393,458.64	+5.3%
Other	\$25,838,896	\$25,554,690	\$27,402,672	\$27,596,134	\$62,883,758.56	+19.5%
Total	\$160,674,699	\$166,425,921	\$173,124,721	\$180,543,823	\$184,019,746	+12.6%

Source: Graduate School, University of Minnesota

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 2017–2018, Bridging Funds were awarded to 138 graduate students.

Offering a Great Student Experience

As the state’s designated research institution, the University has the responsibility to provide graduate students and postdoctoral scholars 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 and professional students on the Twin Cities and Duluth campuses. Although many programs provide local orientation for their students, the campus-wide event helps new students connect with one another and begin to build a graduate community.

More than 1,400 students representing 16 colleges registered for the 2018 event. Following the formal presentations, graduate students had the opportunity to network and mingle with others, meet student groups, and participate in a writing activity designed to encourage them to share their interests, hopes, aspirations, and concerns as they begin their graduate education experience.

The Graduate School also hosts a resource fair to introduce new students to a wide range of University resources and service units to help them succeed, including One Stop Student Services, Boynton Health, and the Office of Student Finance. Nearly 1,000 students registered for the 2018 fair, which featured nearly 60 exhibitors.

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 launched during spring 2019 to better serve all new students.

Summer Institute

The Summer Institute, a seven-week program that takes place on the Twin Cities campus 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, 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. During 2018, a record 44 graduate students from 28 programs took part in the institute, the greatest number since its inception in 1998.

Grad Chat

To keep graduate education leaders in touch with the interests, issues, questions, and challenges that matter most to graduate students, Grad Chat was established in September 2018. Grad Chat is a series of events in which small groups of randomly selected graduate students are invited to join the vice provost and dean of graduate education for a conversation in which the students create the agenda. Any subject related to graduate education is open for discussion.

Diversity and Inclusion

As a response to graduate students and postdocs expressing interest in connecting with others across disciplinary and cultural barriers to effect institutional change, the Graduate School coordinated establishment of the Graduate Student and Postdoctoral Alliance for Diversity and Inclusion during 2018. The group provides opportunities for all graduate students and postdoctoral researchers to work collectively on issues that support diversity and inclusion through education, advocacy, networking, discussion, cross-pollination, recognition, and celebration. More than 30 graduate students and postdocs participated in focus groups to help inform the purpose of the alliance. This student- and postdoc-led group now has more than 360 members.

The Graduate School Diversity Office developed a video featuring current faculty and students that serves as a tool to help graduate programs recruit, retain, and graduate students from underrepresented populations. This tool is used to address departmental culture with faculty and staff to ensure a welcoming climate for diverse graduate students.

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.

During 2018, COSP created a new Writing Program Coordinator position, which allowed the program to offer writing retreats, faculty panels on writing and publishing, small writing groups, and individual writing consultations to COSP graduate students. In addition, the Hennepin County summer internship program, which introduces COSP students to work environments in the government sector while gaining research and administrative skills, grew from three to nine participants this year. Two COSP students participated in the predoctoral fellowship program, teaching one course per semester at system campuses while writing their dissertation and being mentored by senior faculty.

COSP was selected as the recipient of the 2018 Promotion of Excellence Award, which is presented by NAGAP, the Association for Graduate Enrollment

Management, to an individual or team that has developed or implemented processes, policies, events, or technologies that demonstrate best practices, creativity, and/or innovation in graduate enrollment management and that could serve as a model across the profession.

Graduate School Advisory Board

The Graduate School's recent strategic planning process and conversations with the University's Graduate Education Council revealed the need for a new advisory structure with more opportunity for faculty, students, and postdocs to advise on matters of strategic priority in graduate education and postdoctoral training.

This led to the formation of the Graduate School Advisory Board (GSAB), which replaced the Graduate Education Council in June 2018. The board focuses on issues of institutional, national, and global importance and best practices in graduate education and postdoctoral training and advises the vice provost and dean of graduate education on these matters. Board members serve as representatives of, and advocates for, graduate education and postdoctoral training to the internal University and external communities. The vice provost and dean of graduate education and a GSAB faculty member cochair the Graduate School Advisory Board. Its membership includes 15–20 elected faculty members, three postdocs, and five graduate students who represent the spectrum of University graduate and postdoctoral disciplines and campuses. All University of Minnesota tenured and tenure-track faculty with graduate education responsibility, master's and doctoral students from research-based programs, and postdoctoral associates and fellows are eligible to serve on the GSAB.

Preparing Faculty & Staff to Provide a Great Graduate Student Experience

Advising

The quality of advising is strongly correlated with graduate student success and satisfaction. The vast majority of issues brought by graduate students to the Student Conflict Resolution Center are about the

advisor/graduate student relationship, most of which could be avoided if the faculty member was aware of, and employing, advising best practices. While most faculty are very interested in learning about best practices in advising, they have not received any guidance on how to be an effective advisor. An advising tool kit targeting faculty at all career stages is being developed for launch in 2019. The tool kit will include resources and online modules covering topics such as culturally competent advising, supporting career exploration and development, and effective communication in advising/mentoring relationships. As part of the Graduate School's strategic plan, directors of graduate studies (DGSs) are being provided with training and resources that will help them use their time more efficiently, be more effective as leaders of their program, and increase the likelihood that faculty will adopt the Graduate School's priorities for graduate education. These include strengthening the role of DGSs in communicating expectations about the advising relationship to graduate students and faculty, and encouraging the adoption of best advising practices at the program level.

The Graduate School is also partnering with the vice provost for faculty and academic affairs to offer workshops on advising best practices to new faculty during the academic year. In Spring 2019, a half-day advising retreat will be piloted with early-career faculty from the College of Food, Agricultural and Natural Resource Sciences, and will be adapted and expanded to other colleges during the 2019–2020 academic year.

Graduate Education Goals

In recent years, university accreditation agencies have begun to stress learning outcomes in graduate education. During 2012–2013, the Graduate School launched an initiative to have all graduate programs identify program-specific educational goals and methods to assess their students' attainment of them. A majority of programs have since articulated both educational goals and a framework for assessing student outcomes, and many have completed the assessment phase of the initiative, analyzed results, and implemented programmatic improvements based on the evidence gathered. During 2018, each research-based graduate program was asked to report

on changes the program has made, or plans to make, in the program curriculum and related processes as a result of evidence collected through the assessment process. The Graduate School is in the process of analyzing this data to look for trends, common themes, and best practices that could be shared among programs. In addition, individual directors of graduate study are advising the Graduate School on how to best support, build on, and sustain ongoing self-assessment and program improvement.

Support for Graduate Staff and Faculty

To provide prospective and current students, faculty, and colleges with the data they need to make informed decisions, the Graduate School developed in 2018 a set of college-specific data portals with information about applications, admissions, matriculation, enrollment, time-to-degree, completion rates, demographics, graduate student involvement, graduate student competitiveness, and University-wide survey results.

In addition, the Graduate School reviewed program-level results from the gradSERU survey, the University's primary opportunity for graduate students to provide graduate programs and colleges with anonymous feedback about their experiences. The survey is comprehensive and the results can be somewhat overwhelming, so to help each of the programs focus on the particular areas that are of most importance to them, the Graduate School identified the survey questions for which a program was an outlier—meaning that responses to a particular question were at least 1.5 standard deviations from the University mean. The Graduate School then developed a report for each college that consolidated this information, with a particular emphasis on two sections, “Program and Campus Climate” and “Advising and Mentoring.” Results were shared with college deans and associate deans during in-person meetings with the vice provost and dean of graduate education.

The Graduate School Admissions Office developed and implemented a new admissions system to better support prospective students and graduate program admissions efforts. The Graduate School also launched a new website in fall 2018 with a particular focus on an improved user experience and accessibility. The new site provides users with easy access to the information they expect to find and

additional, strategically important information helps to attract, recruit, and retain graduate students and helps to promote an environment of inclusion and excellence.

Support for Postdoctoral Researchers

As part of its strategic plan, the Graduate School established the Office of Postdoctoral Initiatives to provide a central place where postdoctoral fellows and associates can find resources and raise concerns related to the postdoc experience. Additionally, the Graduate School surveyed all postdoctoral scholars at the beginning of 2018 to identify the issues that were most important to them; responses are helping shape the strategic vision for the newly created office.

Preparing Graduates for Success

With graduate education and postdoctoral training, students are expected to acquire deep knowledge of a discipline, and then be able to use that knowledge—both the content and the methodologies of the discipline—to create new knowledge and perhaps also to challenge existing understanding. In addition, the institution's role is to prepare them for the increasingly complex environment in which they will find themselves after they leave the University.

It is essential that graduates and postdoctoral scholars have transferable skills in addition to disciplinary knowledge—for example, the ability to communicate effectively with different audiences, work in teams, be multiculturally competent, manage projects, and be leaders. Increasingly, the deep disciplinary knowledge and skills received in their graduate and postdoctoral training is what gets them the interview, but it is very often the transferable skills and interdisciplinary knowledge that gets them the job offer. The University offers opportunities and resources for graduate students and postdoctoral scholars to explore, to engage, and to extend themselves beyond their disciplines as they prepare for their future careers.

Academic and Career Development

Academic and career development support for graduate students and postdoctoral scholars varies widely by college and program. To provide academic and career development resources to all graduate students and postdoctoral scholars, the Graduate

School partners with units to deliver workshops and trainings on topics such as proactive planning; the academic/non-academic job search; resume/CV and cover letter writing; and how to manage stress.

In partnership with the Office for Student Affairs, the Graduate School distributes the Academic, Career & Campus Update, a biweekly email with information about academic and professional development opportunities across campus. This has been an effective tool for increasing student, postdoc, staff, and faculty awareness of the opportunities available and has led to more efficient use of limited resources.

Graduate students and postdoctoral scholars have indicated that they would like to access more training opportunities online. The Graduate School is currently working on identifying the gaps in online resources and developing content to meet the needs of graduate students and postdoctoral scholars systemwide.

The University also helps students learn to communicate effectively with different types of audiences through events such as 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.

The Graduate School hosted the second annual University-wide Three Minute Thesis competition in November, a research communication competition that challenges students to communicate the significance of their projects without the use of props or industry jargon in just three minutes. The exercise develops academic, presentation, and research communication skills and supports the development of research students' capacity to quickly explain their research in language appropriate to a non-specialist audience, leaving them wanting to know more. The winner will represent the University in the Midwest Association of Graduate Schools' regional competition in the spring.

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, two graduate education programs facilitated by the Interdisciplinary Center for the Study of Global Change hosted twelve scholars from twelve academic departments within five colleges and schools. The scholars—from countries including Colombia, the United States, Ghana, India, and Guadeloupe—studied the global south in the context of global change.

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.

To facilitate interdisciplinary research and scholarship, 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, and subsidized health insurance. Twenty-three graduate students received the IDF for the 2017–2018 academic year.

The Graduate School is also partnering with the Office of the Executive Vice President and Provost to promote opportunities for graduate students and postdocs to participate more extensively in the Grand Challenges Research Initiative.

Tracking Student Outcomes

Since fall 2017, the Graduate School has participated in the Council of Graduate Schools' "Understanding Ph.D. Career Pathways" project in an effort to track graduate students' careers and job placement outcomes. This multiyear project involves surveying Ph.D. alumni and current Ph.D. students to evaluate how well graduate programs are preparing students for their chosen career paths. 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.

Professional Education

The University of Minnesota offers nearly 100 professional degrees as well as certificates and other experiences at the postbaccalaureate level. These programs 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. (For more about graduate education and postdoctoral training—defined as primarily focused on research or creative activity—see the previous chapter.)

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 three 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. In addition, Design continues its focused work on making the undergraduate college climate more inclusive and equitable to encourage current underrepresented students to apply for our professional programs.

The Master of Social Work in the College of Education and Human Development (CEHD) has multiple strategies to recruit and attract students from diverse backgrounds, including graduate recruitment fairs, scholarship funds dedicated to supporting underrepresented populations, and key partnerships with various external stakeholders. For example, the School of Social Work has cultivated a diverse student body to work in child protective services by offering Title IV-E funding opportunities via a partnership with Kente Circle, an agency specializing in mental health services in the African American community. The school also partners with the Office for Business and Community Economic 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. Beyond just partnering for funding support, a number of local agencies that serve diverse populations work with the M.S.W. program by providing training opportunities for students through supervised internships. Along with Kente Circle mentioned above, these agencies include 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). Each month the school invites these agencies to engage in on-campus dialogues with M.S.W. students to promote awareness of services and community needs.

The Curriculum and Instruction department within CEHD also prioritizes the recruitment and retention of students from diverse backgrounds. In 2016, the department created the Teacher-Scholars of Color program, dedicated to supporting all students of color in the teacher education program. The program provides numerous resources to enhance retention efforts such as: faculty program coordinators for mentorship, opportunities to attend professional meetings and network with community organizations that serve youth of color, access to school-based mentors of color in local districts, and ultimately, a space to gather with peers to collaborate and network.

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 25 women and minority undergraduate students, the vast majority of whom were not previously considering careers in business. Veterans initiatives, such as philanthropic support for fellowships, remain

strong and have been successful for the M.B.A. program, with over 225 veteran students enrolling in Carlson M.B.A. programs since 2012.

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, Humphrey Association for Disability and Mental Illness, Humphrey Gender, Sex, and Policy Event Committee, and the Humphrey International Student Association. 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 Humphrey School hosts an annual Junior Summer Institute, a rigorous seven-week program that prepares undergraduate students to thrive in graduate programs and launch careers in public service. Fifteen to twenty students from underrepresented backgrounds and hailing from undergraduate institutions around the country complete the program each year.

The Humphrey School is actively partnering across the University system, including with the Morris campus. Humphrey faculty, staff, and leadership have visited Morris several times 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 4-11). AHC schools work to attract and enroll students from diverse backgrounds by using holistic admission processes and offering scholarships, financial planning, and counseling services to help make education as accessible as possible.

The School of Public Health prides itself in its open, welcoming environment grounded in respect. More than 1,400 students receive their education in public health, with 21 percent being American Indian students and students of color and with 48 countries represented by international students. Some of the school's diversity and inclusion initiatives include:

- “SPH in Color,” monthly student discussion group for American Indian students and students of color to discuss issues of access and inclusion across the school;
- new minors in Global Health and in American Indian Health and Wellness;
- a new monthly brown-bag series known as “Edible Education” focuses on equity-based topics; and
- Dean John Finnegan cochaired President Kaler’s Initiative to Prevent Sexual Misconduct.

The College of Veterinary Medicine continues to recruit competitive students, including from 41 states and 4 countries in the first-year class alone. To promote diversity, the Veterinary Leadership through Early Admission for Diversity (VetLEAD) program offers a provisional early admission decision to high-ability students at partner institutions with historically diverse student bodies, 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. Two students were recruited from this program.

For the third consecutive year, the School of Nursing received the Higher Education Excellence in Diversity

Table 4-11. Racial and ethnic diversity of students enrolled in health professional programs, all campuses, 2014–2018

	2014	2015	2016	2017	2018
American Indian	1.3%	1.7%	2.4%	1.5%	1.7%
Asian/Pacific/ Hawaiian	8.5%	9.3%	8.9%	10.7%	11.1%
Black/African American	3.9%	4.1%	4.3%	5%	5.5%
Hispanic	2.1%	2.5%	2.5%	2.9%	3%
International	2.8%	3.2%	3.3%	2.6%	2.4%
White	71.3%	70%	68.8%	68.9%	69.3%
Unknown	10.2%	9.3%	9.8%	8.4%	7.0%

Source: Office of Institutional Research, University of Minnesota

Award, a national recognition for demonstrating an outstanding commitment to diversity and inclusion.

The Master of Laboratory Sciences program enrolls an average of 50 percent American Indian students and students of color each year. The program provides an employment gateway path into graduate-level professional health programs such as medical and pharmacy school.

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 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. Over the past five years the percentage of students underrepresented in medicine has remained in the 18 to 20 percent range after a historical average of 8 to 9 percent.

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 90th percentile nationally and a median undergraduate GPA of 3.76. Approximately 16 percent are students of color, and eight percent are from other countries. For the second time in its history—and the second year in a row—the Law School's entering class was majority female. The size of the entering class was also the largest in the last seven years.

Students come from throughout Minnesota, from 34 other states, and from around the world. However, about two-thirds of graduates 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 of 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.

After several recent years of declining enrollment consistent with national trends, the Law School saw a significant upswing in applications in the 2018 admissions cycle. For fall 2018, the incoming class size increased by 30 students over 2017, due to increases in both the number of applications and enrollment yield. 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 a top-20 *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. The Law School has also partnered with an enrollment management consulting group, enhanced pipeline programming, partnered with alumni and bar associations, and developed compelling web and print promotional materials.

Because of the dramatic market shift in law school admissions nationwide since 2010, the Law School has increased its financial aid to admitted students to remain competitive; however, it has been able to keep its increases at levels that are at or below peer institutions. At the same time, 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.

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, the Maslon UPLIFT program for middle schoolers, 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. 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.

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 by landscape architecture professionals in the country. The Master of Architecture program has been ranked second as the most admired by deans and chairs. The Interior Design professional degree 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 75 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 5 percent enrolled in 2012 to over 50 percent in 2018. 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 school is launching an online degree in January 2019 to better serve the state, making a Carlson M.B.A. accessible to those beyond the immediate Twin Cities region.
- The Master of Accountancy Program has a winter tax and public accounting internship option to provide students without prior experience in these fields a "laboratory" in which to apply their newly learned skills. These ten-week, full-time paid internships effectively fund a part of students' tuition cost of the degree. To keep the curriculum on the cutting edge of technology, a new accounting and data analytics component will be offered starting spring 2019. Since 2017, the program is also open to non-accountants and includes additional prerequisites and requirements to bring new admits up to speed in foundational accounting.
- 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 program is well-connected with the robust community of human-rights-focused organizations in Minnesota, as well as across the country.
- The Master of Public Affairs program offers academic training for mid-career professionals with ten or more years of experience who wish to advance their skills in public and nonprofit leadership, management, and policy analysis. The program is flexible and efficient for working

professionals with courses offered during the day, evening, weekends, and summer.

- 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.
- Construction is underway for a new Health Sciences Education Center, which will replace 100,000 square feet of outdated facilities with the modern interprofessional 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.
- 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:
 - Bentson Healthy Communities Innovation Center in the School of Nursing includes simulated environments that span the healthcare 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 in the Interprofessional Education Resource Center and learn with veterinary models in the College of Veterinary Medicine (CVM) Zone, a pilot facility to support clinical skills development.
- Students from across the Academic Health Center have the opportunity to participate in what is believed to be the world's first interprofessional escape room. In this innovative simulated environment, teams of students from multiple health professions are "locked" in a room and must solve a series of health-related puzzles to "escape."
- The School of Public Health implemented a new core curriculum for MPH students, which includes a revised field experience requirement that focuses on the development of essential competencies across various domains of professional skill and knowledge. Contemporary themes addressed within the core curriculum, such as the Flint, Michigan, water crisis, serve as the vehicle to understand various aspect of public health.
- The College of Veterinary Medicine has taken steps to promote student wellness, including the Gopher Orientation and Leadership Experience (GOALE), a yearlong class for first-year students to promote self-awareness and stress the principles of professionalism and servant leadership.
- 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 audiology, dentistry, healthcare administration, law, medical lab science, medicine, nursing, nutrition, occupational therapy, pharmacy, physical therapy, and social work provide free health services to underserved patients in the Twin Cities.

- The Program in Occupational Therapy received Board of Regents approval to transition from a master's degree to a doctorate degree program. Students will be able to enroll in fall 2019.
- The Medical School continues to expand its opportunities for students 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 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 2017.
- All Doctor of Nursing Practice students complete a comprehensive, system-based quality improvement project as a degree requirement. The students engage with healthcare and community organizations in Minnesota and beyond to develop, implement, and evaluate evidence-based solutions to address real quality and safety issues.

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,

including a required first-year course, more than a dozen simulation-based courses that enroll 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 students the opportunity to represent clients in approximately 400 matters each year.

- Two new concentrations (Immigration Law and Family Law), bringing the total number to eleven.
- The 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 in the top ten among the country's 270 public affairs schools, according to national rankings released by *U.S. News & World Report* in 2018 and 2016. Humphrey's ranking is a significant rise from its previous 2012 ranking of 16th. The school's nonprofit management program is rated second and its global policy specialization is ranked tenth. The health professional schools have national prominence through a variety of rankings. For example, the Medical School is ranked 33rd in National Institutes of Health funding (2017, Blue Ridge Institute for Medical Research) and is rated 25th in the world on the Academic Ranking of World Universities (**Progress Card Measure**). *U.S. News & World Report* also ranks a number of health professions programs highly:

- The School of Nursing is ranked second in nursing informatics education and is in the top ten percent of Doctor of Nursing Practice programs in the country.

- The College of Veterinary Medicine ranks ninth.
- The College of Pharmacy is ranked second among all pharmacy schools in the nation.
- The Medical School is ranked 12th in primary care and 46th 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 217 health graduate programs nationally.
- The Program in Occupational Therapy is ranked 37th of 164 schools.
- The School of Public Health is ranked eighth with its Master's of Healthcare Administration ranked third, its online Master of Public Health degree ranked fifth, and its Biostatistics ranked seventh.

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 230 legal-related degrees (LL.M. and J.D.), 263 Master of Education teaching degrees, and 464 M.B.A. degrees in 2017–2018 (Table 4-12). 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 graduation rates for 2012 matriculating classes across most of the health programs exceeding 90 percent (Figure 4-V).

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

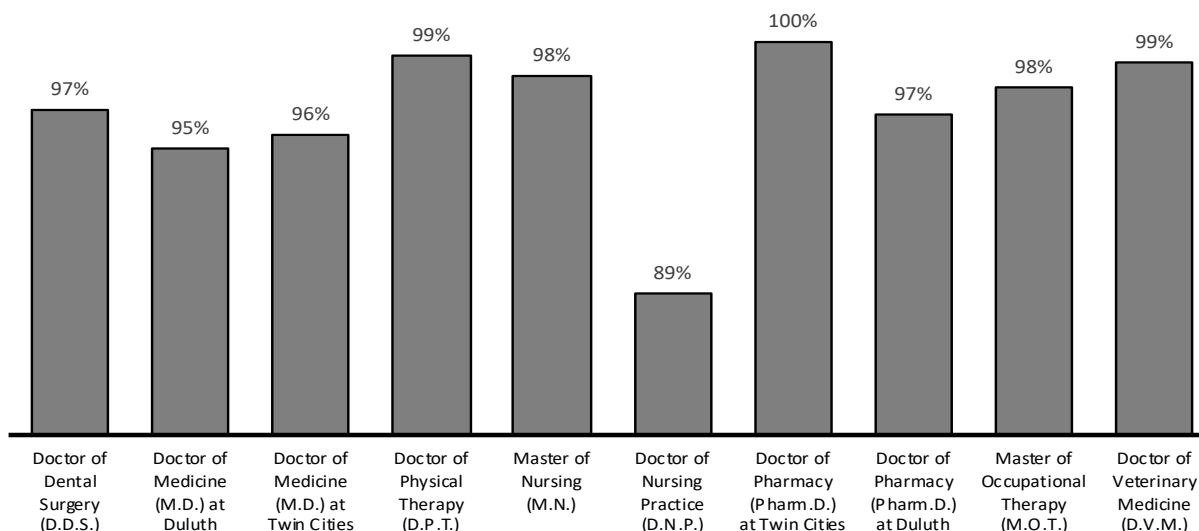
College of Design

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. Further, architecture's Master of Science in Research Practice program has built relationships with design-related faculty from historically black colleges and universities to help identify and recruit top talent to the program.

College of Education and Human Development

The College of Education and Human Development (CEHD) embraces a dual approach of increasing access to teacher education while supplying and

Figure 4-V. Five-year graduation rates of health education programs, students matriculating in 2013



Source: Office of Institutional Research, University of Minnesota

Table 4-12. Fall 2018 enrollment and degrees awarded in select professional programs, 2017–2018

Program	Campus	Enrollment Fall 2018	Degrees Awarded 2017–18
Accountancy (M.Acc.)	Twin Cities	57	49
Architecture (M. Arch.)	Twin Cities	93	32
Business Administration (M.B.A.)	Twin Cities, Duluth	1099	464
Business Analytics (M.S.)	Twin Cities	134	99
Business Taxation (M.B.T.)	Twin Cities	77	22
Community Health Promotion (M.P.H.)	Twin Cities	64	29
Curriculum and Instruction (M.Ed.)	Twin Cities	62	24
Dentistry (D.D.S.)	Twin Cities	468	114
Doctor of Nursing Practice (D.N.P.)	Twin Cities	381	109
Early Childhood Education (M.Ed.)	Twin Cities	20	20
Epidemiology (M.P.H.)	Twin Cities	84	43
Financial Mathematics (M.F.M.)	Twin Cities	56	38
Health Care Administration (M.H.A.)	Twin Cities	131	87
Human Resources and Industrial Relations (M.A.)	Twin Cities	155	83
Integrated Behavioral Health (M.P.S.)	Twin Cities	104	28
Law (J.D.)	Twin Cities	591	194
Law (L.L.M.)	Twin Cities	28	36
Master of Nursing (M.N.)	Twin Cities	125	63
Maternal and Child Health (M.P.H.)	Twin Cities	75	20
Medicine (M.D.)	Twin Cities, Duluth	961	216
Occupational Therapy (M.O.T.)	Twin Cities, Rochester	98	37
Pharmacy (Pharm.D.)	Twin Cities, Duluth	666	173
Physical Therapy (D.P.T.)	Twin Cities	156	43
Public Affairs (M.P.A.)	Twin Cities	76	35
Public Health Administration and Policy (M.P.H.)	Twin Cities	129	48
Public Health Practice (M.P.H.)	Twin Cities	87	35
Public Policy (M.P.P.)	Twin Cities	166	78
Social Work (M.S.W.)	Twin Cities, Duluth	290	161
Software Engineering (M.S.S.E.)	Twin Cities	50	26
Teaching (M.Ed.)	Twin Cities	346	263
Urban and Regional Planning (M.U.R.P.)	Twin Cities	63	40
Veterinary Medicine (D.V.M.)	Twin Cities	413	102
Youth Development Leadership (M.Ed.)	Twin Cities	40	12

Source: Office of Institutional Research, University of Minnesota

diversifying Minnesota's educator workforce. For example, in 2015 CEHD created a Multiple Pathways to Teaching initiative as a response to predicted teacher shortages across the state. This innovative unit is committed to both diversifying the teaching profession and creating new pathways for students to successfully acquire their teaching licensure. The goal for the initiative is to widen the pipeline of non-traditional students, with the premise that a greater number of quality teacher candidates from diverse backgrounds will be better equipped to attain licensure if the preparatory program is tailored to the needs of a specific district. CEHD has successfully tailored its curriculum delivery for a variety of district partners, allowing for promising teacher candidates already working in that district to meet licensure requirements without having to leave their employment within their school. With these various initiatives in place, CEHD prepares between 250 and 300 new teachers across 20 licensure areas each year.

One example of this is 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.

The Dual Language and Immersion Licensure program is another example of addressing the state's teaching shortages in elementary immersion and dual-language programs. The program's unique design allows for bilingual applicants to complete their elementary licensure and master's program as a cohort of teacher candidates. With a tailored curriculum of online and face-to-face coursework concurrent with field-based experience, candidates cultivate a special set of knowledge and skills to prepare them to teach in dual-language and immersion programs.

At the School of Social Work, recruiting a diverse population of students is naturally supported by the various partnerships the school has with local agencies that serve underrepresented communities. Even more than a recruiting piece, these partnerships support

retention efforts by getting students to problem solve and engage with real community issues early on in their education. M.S.W. students are regularly apprised of the 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 about all aspects of their unique services: 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 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.

All M.B.A. and M.S. programs at the Carlson School actively engage the community to move learning beyond the theoretical and into applied problem solving to enhance learning and mastery. Examples include:

- “Live case” competitions: Students comprehensively engage a common problem, competing to present the most effective solution while engaging companies like Carlson Wagonlit, PwC, McKinsey, and Carlisle Industries.
- Client projects: In the last year, students in the Master of Science in Business Analytics program completed 18 sophisticated analytics projects and M.B.A. Enterprises completed more than 50 projects. The M.S. in Finance launched its project portfolio and M.S.S.C. students completed four projects. All told, more than 75 graduate projects were completed. Several of these projects were featured in local and national media as they took on grand challenges of public importance like homelessness reduction and opioid crisis interventions.
- Entrepreneurial offerings: Multiple offerings enable students to engage in entrepreneurship. The Sands Fellowships allow students to pursue social enterprise, the Start Up course accelerates students' own concepts, the Medical Industry Leadership Institute runs multiple “Valuation Lab”

cohorts per year, exposing students to authentic medical innovations for them to evaluate.

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. To attract tax professionals nationwide, a fully online M.B.T. program has been launched effective fall 2018.

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 88 percent placement at 90 days with an all-time-high starting average salary of \$110,000. The full-time Master of Science in Business Analytics (M.S.B.A.) is at 98 percent placement with an average salary of \$94,500.

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 human and social services workforce.
- The Center on the Study of Politics and Governance hosts the annual Policy Fellows Program, a public affairs leadership experience for emerging and mid-career professionals. This non-credit cohort program engages about three dozen leaders from government, business, and nonprofit organizations each year in leadership workshops, networking opportunities with prominent public affairs leaders, training in public policymaking and agenda-setting, and team-based projects on key regional policy issues.
- The Master of Urban and Regional Planning program maintains a strong relationship with the American Planning Association (APA) Minnesota chapter, the primary professional 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's professional planning 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 School of Public Health emphasizes a multidisciplinary, multidimensional approach to public health. A long and close partnership with the state health department—one of the best in the country—gives students on-the-ground experience and allows faculty to work with colleagues in the field. The school focuses on “engagement” with communities rather than “outreach,” to support the reciprocal relationship and partnerships.

To meet the veterinary needs of the state, the Veterinary Food Animal Scholar Track (VetFAST) program accepts freshman and sophomore students enrolled in the Animal Science program from 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 and to date, 28 students have been recruited through this program. Additionally, the college is in the process of developing a partnership with South Dakota State University (SDSU) to address a shortage of veterinarians in rural practice. Students will do their first two years at SDSU and then complete their training at the University of Minnesota. Students can also obtain dual DVM/Master's of Public Health degrees that provide them with employment opportunities in industry, practice, and the Centers for Disease Control and Prevention.

The Medical School contributes to the state's physician workforce, with over 70 percent of actively practicing physicians going to medical school or completing a graduate medical education program at the University. This includes a broad range of specialties with a major emphasis of training primary care providers to serve in rural and urban underserved areas.

The field of occupational therapy is projected to grow 27 percent by 2024, much faster than the average for all occupations. Providing an important part of treatment for people with various illnesses and disabilities, including Alzheimer's disease, cerebral palsy, autism, or the loss of a limb, the Occupational Therapy program is addressing this growth with an innovative hybrid-online program that expands its educational programming to a broader community of students. Students learn hands-on skills through a partnership with the University's Disability Resource Center. Students partner with the RecWell Center to expand health and wellness offerings for all individuals and to provide increased access—such as the new wheelchair basketball program—for students and community members with disabilities.

The Doctorate of Physical Therapy program has increased its focus on development of community-healthcare partnerships to address current and predicted shortages of physical therapists in Minnesota.

The School of Nursing is home to the nation's first and only specialty in integrative health and healing for Doctor of Nursing Practice students. The students take a holistic approach to health and wellness by learning integrative therapies such as aromatherapy, acupuncture, and healing imagery and creating optimal healing environments in healthcare organizations. The school established academic-practice partnerships with three mental health clinics in urban and rural underserved areas in Minnesota. In this innovative program, nurse practitioner students and faculty work with an interprofessional team to provide integrated, team-based care to persons who live with mental illness and complex medical conditions.

Like most allied health programs, medical laboratory science (MLS) is facing a significant shortage in workforce, especially in rural areas across the country. The MLS program continues to build academic affiliations with four-year colleges in Minnesota and Wisconsin providing access to the MLS program and recently implemented a professional master's degree program for those applicants who already have a bachelor's degree and are seeking the professional credential and experience in laboratory operations and management.

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. It started the first dental therapy program in the nation in 2009, and currently educates 68 percent of licensed dental therapists in Minnesota.

Through the Academic Health Center 1Health initiative, students receive education and experience 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 & 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. *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 activities 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 2018, a systemwide strategic planning process reaffirmed the need for systemwide coordination and priorities to advance the research mission. In alignment with the Twin Cities and other campus plans, the systemwide research objective 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 the systemwide research 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 in the top ten among public universities in research spending, with more than \$921 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 \$948 million. University of Minnesota research contributes an estimated \$1.2 billion to the University's overall \$8.6 billion annual economic impact for Minnesota, according to a 2018 report by Tripp-Umbach.

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 University medical and health science schools and units accounted for \$407.9 million in research awards in fiscal year 2018, accounting for 51 percent of the University's research portfolio shown in Table 5-1. University biomedical and health researchers focus on the critical health needs of our society including cancer, children's health, brain sciences, heart disorders, diabetes, infectious disease, and more. In addition, this research fuels centers and institutes that make a difference, such as:

- The Masonic Cancer Center, one of 41 National Cancer Institute comprehensive cancer centers in the U.S., a designation awarded only to institutions that make ongoing, significant advances in cancer research, treatment, and education. The Masonic Cancer Center leads the Minnesota Cancer Clinical Trials Network across the state.
- The Clinical and Translational Science Institute (CTSI) is one of 60 National Institutes of Health (NIH)-supported research institutions working together to improve the way clinical and translational research is conducted nationwide, enhancing its efficiency and quality. In fiscal year 2018, NIH approved another five years of funding for CTSI.
- The University's Udall Center, one of nine such centers supported by NIH nationally, seeks to define the changes in brain circuitry that underlie the motor dysfunction in Parkinson's disease and use this information to develop novel deep brain stimulation therapeutic approaches to improve the lives of patients suffering from Parkinson's disease.

Through breakthrough health science research discoveries, top-notch education and training programs, and leading-edge health care, the University

Table 5-1. Top 20 institutions reporting largest research and development expenditures, fiscal years 2016 and 2017

		2016		2017		Percent Change 2016 to 2017
		Total ¹	Public Rank	Total ¹	Public Rank	
1	Johns Hopkins U. ²	\$2,431 million		\$2,562 million		5%
2	U. of Michigan–Ann Arbor	\$1,436 million	1	\$1,530 million	1	6%
3	U. of California–San Francisco	\$1,294 million	2	\$1,409 million	2	8%
4	U. Pennsylvania	\$1,296 million		\$1,374 million		6%
5	U. of Washington–Seattle	\$1,278 million	3	\$1,348 million	3	5%
6	U. of Wisconsin–Madison	\$1,158 million	4	\$1,193 million	4	3%
7	U. of California–San Diego	\$1,087 million	5	\$1,134 million	5	4%
8	Duke U.	\$1,056 million		\$1,127 million		6%
9	Harvard U.	\$1,077 million		\$1,123 million		4%
10	Stanford U.	\$1,066 million		\$1,110 million		4%
11	U. of North Carolina–Chapel Hill	\$1,045 million	6	\$1,102 million	6	5%
12	U. of California–Los Angeles	\$1,038 million	7	\$1,077 million	7	4%
13	Cornell U.	\$974 million		\$985 million		1%
14	Massachusetts Inst. of Technology	\$946 million		\$952 million		1%
15	Yale U.	\$882 million		\$941 million		7%
16	U. of Pittsburgh	\$890 million	10	\$940 million	8	5%
17	U. of Minnesota–Twin Cities	\$910 million	8	\$922 million	9	1%
18	New York U.	\$810 million		\$918 million		12%
19	Texas A&M	\$893 million	9	\$906 million	10	1%
20	Columbia U.	\$837 million		\$893 million		6%

¹dollars in millions

²Johns Hopkins University includes Applied Physics Laboratory, with \$1,472,103 thousand in total R&D expenditures in FY 2017

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

is working to improve the health of people and animals across Minnesota and around the world.

Institutional Support for Research

Over the past five years, research advancement funding programs under the Office of the Vice President for Research (OVPR) have provided more

than \$24.1 million (\$33.3 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 2018, over \$2.5 million was awarded to 19 research projects, reaching 17 departments, units, and centers; eight colleges; and three campuses (Twin Cities, Duluth, and Morris). Supporting colleges or centers provide one-to-one matching funds for each award. Awards support research infrastructure, facilities, and support services over a variety of University research areas including bioprinting, obesity prevention, pharmacology, child development, clinical research, genomics, and more.

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. 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, \$13.5 million has been awarded through the GIA program. For every dollar invested, \$4.30 in external funding was generated in fiscal years 2012–2016.

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. In 2018, two grants were awarded for a total of \$499,367. 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, \$3.13 in external funding was generated in fiscal years 2011–2015.

The 2018 Minnesota Futures grants went to two projects: Effect of the Microbiome Upon Deer Tick Range Expansion in the Upper Midwest, which will study the environment's impact on the spread of deer ticks; and Coordinated 3D Marker-Less Pose Estimation and Neural Measurements from Freely Moving Rhesus Macaques, which will seek to improve methods for researching brain activity.

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 research and creative projects. Undergraduate students 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 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's and society's greatest challenges. In 2013, the State of Minnesota authorized an \$18 million recurring annual investment in four research areas: Robotics, Global Food, Environment, and Brain Conditions. In 2017, the state appropriated another \$4 million per year for a fifth research area: 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.

To date, more than 1,070 researchers in more than 100 departments and dozens of colleges across three campuses (Twin Cities, Duluth, and Morris) have been involved in MnDRIVE research.

With these funds and others leveraged, 767 people have been hired to date. These hires include 31 new faculty who, in turn, are responsible for 146 hires, including lab technicians, graduate students, undergraduate researchers, and post-doctoral fellows.

During calendar year 2017 alone, researchers involved in MnDRIVE work disclosed more than 70 inventions for patents or licensing and received more than \$44 million in external funding—ten percent of which came from business and industry, including Pepsico, Xcel Energy, Medtronic, and Zoetis, Inc. The newly-funded MnDRIVE Minnesota Cancer Clinical Trials Network has identified 18 sites that will begin offering intervention cancer clinical trials affecting 47 counties across the state.

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 over 850 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 addition to acquiring and managing high-end hardware resources, MSI works closely with numerous research groups on campus to develop tools and platforms designed to securely take in, manage, analyze, and share data to foster public-private research collaborations in the agricultural and biomedical sectors.

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 recent project aims to improve plant breeding at the intersection of genomic, phenotypic, and environmental informatics.

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 by providing consulting and training to students, faculty, and staff. Three examples include collaborating with Global Transit Innovations to map transit availability across the globe; developing the data infrastructure for an NSF-funded project looking at sustainable, healthy cities; and providing spatial analysis of wheat rust in Israel for researchers in Plant Pathology.

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. Ongoing support for ambitious, high-impact research also ensures that the University brings to Minnesota the best and most productive researchers and scholars across fields of study.

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). These strategies intersect with a variety of other significant initiatives aligning University strengths with opportunities and needs; the five-year-old MnDRIVE initiative is a prominent example. Work to broaden and deepen interdisciplinary collaboration is further advanced through University-wide centers such as the Institute on the Environment and the Institute for Advanced Study. 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

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.

UMN's Technology Commercialization office 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. Technology Commercialization includes several outward-facing functions that contribute to its operations: Technology Licensing, Business Partnerships, and the Venture Center. Each of these groups has contributed to successes in fiscal year 2018, including the following highlights:

- A major effort to increase patent reimbursements led to a 67 percent increase from the previous fiscal year (\$1.3 million to \$2.2 million). The number of issued patents also increased (147 to 186).
- A record number of MN-IP agreements (86) (**Progress Card Measure**) and an increase in the number of companies who have signed agreements (58).
- The launch of 13 new startup companies, and ending fiscal year 2018 with 27 companies in the startup pipeline.

Technology Licensing

Technology Commercialization staff continued to reinforce the University's internationally recognized leadership in university technology transfer, which 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. The University of Minnesota was also 29th on the most recent list of the Top 100 Worldwide Universities Granted U.S. Patents released by the National Academy of Inventors and the Intellectual Property Owners Association, which noted Minnesota was awarded 75 patents during calendar year 2017, a 70 percent increase over two years. In May 2018, the Technology Commercialization office was named one of five finalists for the 2018 "Tech Transfer Unit of the Year" award from London-based Global University Venturing.

Business Partnerships

The Technology Commercialization office is nationally recognized as a leader in transforming discoveries into innovative solutions by streamlining partnerships between businesses and the University. Its groundbreaking program, Minnesota Innovation Partnerships (MN-IP), is designed to make it easier for industry to work with the University, both in sponsoring research and in licensing technology. MN-IP (**Progress Card Measure**) 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 now includes 163 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 intellectual property. 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 414 agreements with 233 unique companies, with a value of \$75.2 million in research sponsorship.

In fiscal year 2018, staff played a lead role in securing two major sponsored research contracts (Mitsubishi Tanabe Pharma and Toray), have helped to facilitate

expedited business access from a range of companies across the state, and have continued to represent the University at conferences and meetings statewide.

In addition to attracting business for licensing and sponsored research, Technology Commercialization staff also managed the successful Economic Development Fellows Consulting Program, which connects regional companies with graduate students, professional students, and postdocs seeking to gain experience in business consulting. In fiscal year 2018, the program completed 18 projects, and since launching in 2016, over 175 students from 55 departments and 40 companies have participated.

Advances in neuroscience have the potential to bring about new and improved treatments for those with debilitating, brain-related health problems. In fiscal year 2018, Technology Commercialization worked to connect University neuroscience researchers and industry leaders to help technologies move beyond the lab and through the regulatory process.

To highlight some of the many licensable University neuroscience innovations, Technology Commercialization invited industry experts and investors from the 17th Annual Design of Medical Device Conference in April 2018 to a Neuroscience Technology Showcase. University researchers discussed their inventions based on different forms of "neuromodulation," where scientists use high-frequency sound waves or implanted electrodes to affect the activity of certain neural circuits. Neuromodulation interventions have been found to decrease symptoms and improve brain function, potentially with fewer side effects and longer-lasting benefits than existing treatments for diseases such as Parkinson's, Alzheimer's, and other brain disorders.

Technology Commercialization supported Minnesota's broader entrepreneurial community as sponsors—along with Boston Scientific, the University's Earl E. Bakken Medical Devices Center, and Mayo Clinic—of gBETA Medtech, a free medtech company accelerator.

Venture Center

By the end of fiscal year 2018, the University had launched 132 startups, with approximately 77 percent still active, and had developed a strong startup pipeline of technologies with the potential to spin out

into new companies. Since fiscal year 2006, the largest share of University startups has been in software/IT, followed by bio/pharma and medical devices. This well-diversified list reflects the many strengths of the University's research portfolio, the broad industry experience of Technology Commercialization staff, and the opportunities afforded by Minnesota's diverse economy. In addition to companies that are spun out, the Venture Center is typically working with 20 to 30 other potential companies in its startup pipeline.

A survey of University startup companies found that since the Venture Center was formed in 2006, these startups have raised over \$405 million in outside investment capital. Several 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. Three University startup companies transitioned ownership in fiscal year 2018: Calyxt, a consumer-centric, food- and agriculture-focused company, became a publicly traded company; Medication Management, a patient-centered medication therapy management service, was acquired by Genoa Healthcare; and Flipgrid, a company based on interactive classroom video technology, was acquired by Microsoft.

Two University startup companies were approved for funding consideration under the Discovery Capital investment program. 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 led and matched by external investors. The program has invested \$2.7 million, attracting total matches of \$20.2 million.

Two University startup companies participated in gBETA accelerator programs offered by gener8tor, a nationally ranked accelerator: enVerde, which creates synthetic gas from organic waste; and Soundly, which offers a smartphone game designed to reduce snoring through physical therapy. Both companies completed their accelerator programs with a pitch at gener8tor's final event.

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 support coaching, external consulting, and funding 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 75 faculty teams; provided skills development offerings for more than 200 faculty, post-docs, and graduate students; and awarded grants totaling \$3.7 million to 41 promising projects addressing 35 unique, unmet clinical needs.

MIN-Corps

MIN-Corps is the University's site for the National Innovation Corps (I-Corps), a National Science Foundation initiative that prepares scientists and engineers to extend their focus beyond the university laboratory, and accelerates the economic and societal benefits of research projects through commercialization. University teams receive micro-grants to fund initial prototyping and customer research as part of an educational program in which innovation teams composed of STEM students, staff, and faculty are paired with industry mentors to conduct customer outreach and develop a sustainable business model. In addition, MIN-Corps delivers commercialization seminars to faculty and students to promote the University's entrepreneurial culture. About 700 faculty, staff, and students attended one or more MIN-Corps offerings throughout the year.

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. While this work is still ongoing, much of it has been integrated into other programs so it is less visible as a discrete area of focus.

Research Advancement Development Professionals Network

The Research Advancement Development Professionals Network (RADPN) provides professional development, training, peer mentoring, and networking opportunities to research advancement and development professionals at the University of Minnesota. Originally launched as the Connectors Network, RADPN changed its name and refocused in 2018 as a more formal community of practice. In addition to its mission to support research advancement professionals, its activities will build institutional capacity to attract extramural funding, increase operational efficiency and efficacy, reduce administrative burden on the faculty, and ultimately increase institutional competitiveness.

RADPN is open to anyone who works with the University research enterprise and is governed by a seven-person steering committee that is elected annually. The group initially launched with 30 members, though several efforts have been planned to

increase membership, including a kick-off meeting in late August and several workshops planned throughout the academic year.

One of RADPN's significant accomplishments to date has been organizing an internal "red team" review of a large, interdisciplinary NIH grant for the College of Education and Human Development. RADPN members helped to coordinate the details of the proposal development among faculty and then organized a team of internal and external reviewers to read a late-stage draft of the proposal and provide feedback before submission to increase the chances of it being funded. A funding decision will not be made until early 2019, but RADPN members feel like the review process was worthwhile and are hoping to replicate it in the future.

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 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 foundational truth has been bolstered by the University's *Ten-Point Plan for Advancing and Institutionalizing Public Engagement*, which focuses on what the Association of Public and Land-grant Universities refers to as the "new engagement" agenda. The new engagement—which emphasizes reciprocal engagement—shifts the focus away from traditional, one-directional community outreach and public service efforts to more academically integrated activities in which a university's research, teaching, and learning efforts address societal issues through mutually beneficial campus-community 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 the Twin Cities campus plan, 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.

To this end, three of the campuses developed strategic action plans to further the integration of community engagement in research, teaching, and outreach agendas.

On the Twin Cities campus, a 38-member work group, including faculty, students, and staff, recalibrated the campus's 2008 public engagement plan and developed a new set of action steps composed of nine core values that further the institutionalization of reciprocal public engagement over the next five years. This plan addresses key policy, infrastructure, and culture issues that are essential for deepening institution-wide commitment to reciprocal public engagement.

At the Rochester campus, a group developed a campus-wide public engagement action plan with the specific goals of deepening and expanding the campus's platform partnership with the Mayo Clinic, leveraging the expertise of faculty in the scholarship

of teaching and learning to deepen and expand service-learning and community-based research opportunities for students, and developing systems and processes to increase awareness of how the campus is engaged in the community.

The Morris campus's public engagement action plan comprises five goals: 1) strengthening current initiatives by streamlining the work of the campus's three outreach units; 2) determining faculty, staff, student, and community investment in current initiatives, as well as community needs and interests that will lead to new initiatives; 3) ensuring that community engagement initiatives are truly inclusive of all those in the campus's diverse student body, university, and broader community; 4) aligning the campus's engagement-related institutional practices and assessment efforts with campus-wide student learning outcomes; and 5) more intentionally assessing the effects of the campus's engagement and outreach work and adopting best practices in the community development and community-based learning fields.

Public engagement teams on the Crookston and Duluth campuses are in the early stages of developing their action plans for the new engagement. Learn more at engagement.umn.edu/news-and-events/university-minnesota-public-engagement-action-plans.

Nationally Recognized as an Engaged University

During the 2017–2018 academic year, the University of Minnesota was recognized with several prestigious awards that recognize and acknowledge the University for facilitating a robust "new engagement" agenda that has created significant impact for students, faculty, staff, and community.

The Clinical and Translational Science Institute (CTSI) received \$42.6 million in renewed National Institutes of Health funding for health-related research through the Clinical and Translational Science Award program. As part of the renewed funding, CTSI will build on current efforts to engage communities and stakeholders to improve the process of translation and delivery of health care across the lifespan and to a diverse population.

The Association of Public and Land-grant Universities recognized the University'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 Community-University Health Care Center (CUHCC) was chosen as one of five centers nationally to receive the 2017 Helping Build Healthy Communities award. CUHCC was the only federally qualified health center in Minnesota to receive the award. The award includes support from the National Association of Community Health Centers, which will provide two years of funding to enhance CUHCC's medication therapy management services and will help build a curriculum for University of Minnesota faculty, staff, students, and community members.

The Center for Urban and Regional Affairs (CURA) received the National Neighborhood Indicators Partnership's inaugural G. Thomas Kinglsey Impact Award. This award recognizes programs that use data-driven research to effect policy change and development in the communities they serve. Working with the East Side Neighborhood Development Company in St. Paul, CURA assembled data for the first time on capital allocations by neighborhood. Their analysis brought greater transparency to city spending, prompted policy reforms in selecting capital projects, and motivated improved data collection for easier tracking of spatial patterns in the future.

The Andrew W. Mellon Foundation awarded \$350,000 to the Heritage Studies and Public History graduate program. The grant will provide support for students and their collaborative work with community partners.

The Center for Small Towns (CST) was awarded an operating grant of \$70,000 from the Otto Bremer Trust. The award will help further CST's work connecting rural communities with the University and to expand work in new areas. In addition, the grant will allow CST to collaborate more deeply with the programs carried out by the Morris campus's Office of Community Engagement and Sustainability.

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.

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. 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.

Elevating the Visibility and Centrality of Outreach and Public Engagement

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. Three of the many examples from the 2017–2018 academic year include:

- The Public Engagement Council, the University's systemwide deliberative body charged with addressing 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.

- Faculty, staff, students, and community partners showcased the University's most innovative engagement practices through more than 80 presentations at the systemwide conference "Advancing Publicly-Engaged Research, Teaching, and Learning to Address Society's Grand Challenges." More than 300 individuals from the University community attended this day-long conference.
- A set of engagement zones have been identified to provide targeted outreach efforts to particular neighborhoods surrounding the Twin Cities campus. Coordinators of this place-based initiative hosted a series of meetings between University faculty and community leaders to explore partnership opportunities to catalyze mutually beneficial research, courses, and other projects.

Deepening the Culture of Outreach-focused Research

The University is meeting the "broader impacts," external partnerships, and community-engaged research requirements of funding agencies. The National Institutes of Health and the National Science Foundation are two agencies among others that are increasingly requiring that university-led research projects include external partners as research collaborators and that the expected societal impact of the research is fully explicated or demonstrated. In 2014, the Office for Public Engagement and Office of the Vice President for Research instituted a metric that captures the extent to which University research is outreach- and community-engaged focused. The metric identifies the external stakeholder sector (healthcare agency, for-profit business, government agency, etc.) and the role(s) the external stakeholders

play (e.g., co-investigator, research site, etc.). Over the last three years, more than \$400 million in extramural research funds have been garnered for community-partnered research efforts (Table 6-1). During fiscal year 2018, 425 funding proposals from across the system indicated an activity with the community or other outside entity, with the requested amount totaling more than \$270 million. Of these publicly engaged sponsored proposals, 36 percent are expected to be awarded funding totaling nearly \$68 million.

Significant progress has been made to enhance the scholarly value of outreach and engagement. Faculty and other scholars who work in units that have community outreach as a primary mission (i.e., Extension, Research and Outreach Centers, etc.) report that their community-engaged scholarship is highly valued and widely supported. However, scholars in units that have research and/or teaching as a primary mission have reported that their outreach-focused, community-engaged scholarship is not widely valued or sufficiently supported by promotion and tenure committees. To address this issue, the Office for Public Engagement and the Vice Provost for Faculty and Academic Affairs formed and launched the Internal Review Committee for Engaged Scholarship. This Twin Cities campus-wide committee, composed of tenured, community-engaged scholars from a variety of academic and professional disciplines, is now available to assist promotion and tenure committees in assessing the quality of community-engaged scholarship. The committee members will conduct a formal review of dossiers of the scholars who voluntarily submit their portfolios to the committee and produce a letter that assesses the quality of engaged scholarship, based on a set of national standards and expectations for high-quality scholarship produced through outreach and community engagement.

The value of community-engaged scholarship across the disciplines was also elevated through the establishment and launch of the systemwide

Table 6-1. Publicly engaged sponsored research, training, and public service, fiscal years 2015–2018

Proposals	Number	Total Proposed Budget
Submitted	1,772	\$1,157,573,685
Awarded	788	\$418,263,804

Source: Office for Public Engagement, University of Minnesota

Community-Engaged Scholar Directory (engagement.umn.edu/engaged-scholar-directory). This searchable directory profiles more than 400 scholars at the University who conduct community-engaged scholarship on a variety of issues and in partnership with various stakeholders. The database is searchable by college and topic of the community issues being addressed.

Expanding Community Outreach Opportunities for Students

Community-engaged learning opportunities are increasingly integrated with students' academic curricula. Data from the Student Experience at the Research University (SERU) survey reveal that 85 percent of student respondents believe that opportunities to connect academic work with community-based learning experiences are important. During the 2017–2018 academic year, several efforts were made to expand opportunities for students to engage in a broad range of community-engaged learning experiences linked to academic programs, such as internships, service-learning, community-based research, study abroad, clinical practice, and social entrepreneurship. Through the efforts of the systemwide Public Engagement Council, an expansion of community-engaged learning opportunities for undergraduate students on the Twin Cities campus is currently being considered as part of the redesign of liberal education requirements. The explicit inclusion of internships, service-learning, community-based research, and study abroad in fulfillment of liberal education requirements will encourage more students to participate in publicly engaged educational experiences of their choosing.

Some departments and majors require students to complete an outreach or community-engaged learning experience. For example, undergraduate students in the College of Food, Agricultural and Natural Resource Sciences must complete an experiential learning experience, which often includes a community-based learning activity. Rochester students address health issues through a community-based, interdisciplinary service-learning experience situated in the community. Humphrey graduate students complete a community-based master's thesis that addresses a community-focused policy issue. Second-year medical students complete a community-based

service-learning experience to cultivate intercultural competence and professional skills. Dentistry students provide pro-bono dental services to areas across the state that have limited or no access to dental care services.

A systemwide community-engaged learning course attribute was instituted in 2016 to allow instructors to identify courses that include a community-engaged learning component. Instructors 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 the past year, the attribute was used to identify 102 academic courses that engaged 7,228 students in service-learning, internships, study abroad, social entrepreneurship, and other community-engaged learning experiences.

Strengthening Community Partnerships and Collaborations

Official mechanisms for gathering community input have been established on the Twin Cities campus. The campus is also improving community connections by expanding avenues for University-community communication and collaboration. The Public Engagement Council established a campus-wide Community Advisory Board composed of representatives from existing community advisory groups housed within engagement-focused units and centers. A representative from this board will serve as a full member of the Public Engagement Council and will give voice to the policy needs of various external stakeholder groups engaged in public engagement activities at the University. In addition, beginning in the 2018–2019 academic year, a member from the University's Community Oversight Board will serve as a voting member of the Public Engagement Council, allowing for a greater flow of information, data, and policy development between the Community Oversight Board and the Public Engagement Council on issues pertaining to community-partnered research.

Related to accounting and assessment, the Office for Public Engagement launched two online directories to better assist internal and external stakeholders in identifying partners for publicly engaged research,

teaching, and outreach opportunities. In addition to the Community-Engaged Scholars Directory referenced above, the University launched the Community-Campus Liaison Directory, which showcases more than 100 individuals from across the system who serve in a connecting role between various communities and the University. Both directories can be filtered by college/campus and societal issue, such as education, economic development, and rural development.

Addressing Societal Issues through Outreach and Public Engagement

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. With campuses located around the state—in thriving metropolitan areas and in rural regions with agricultural strengths and traditions—the University leverages the strength and location of each campus and the talents and passion of local communities to address a wide range of challenges, examples of which follow.

Advancing Civic Leadership and Development

- Ebooks Minnesota, a free online book sharing service managed by the **University of Minnesota Libraries**, experienced an 86 percent increase in readership during its second pilot year. Through April, out of 4,000 available ebooks in the collection, Minnesotans of all ages borrowed an ebook a total of 158,868 times. In 2017, Ebooks Minnesota for Schools was launched and in the first five months, a total of 35,695 ebooks were accessed by Minnesota schools.
- The **Neighborhood Leadership and Organizing Program**, facilitated by the Center for Urban and Regional Affairs, builds the capacity of residents and place-based organizations to successfully take on local concerns by developing the skills of their organizers and leaders through trainings, support, and strategic partnership building. Over the past academic year, 13 trainings were held for 210 attendees.
- The College of Continuing and Professional Studies' affiliate program, the **Osher Lifelong Learning Institute** (OLLI), selects 20 University

graduate students or postdocs annually to teach courses in their area of expertise to senior citizen members. The majority of these individuals, called OLLI Scholars, are international students who often teach about their home countries, resulting in increased international awareness for senior citizen participants.

Furthering Economic and Community Development

- Duluth's **Center for Economic Development** (CED) works to strengthen the viability of the Duluth region as a recognized leader in small business development. CED's Student to Business Initiative Program is an educational program for UMD students and a technical assistance program for businesses and organizations. Students provide custom-fit market research and tools that might otherwise be out of reach for small to mid-sized businesses. Participating businesses can use this data to make informed strategic growth decisions. During spring 2018, 177 students and 28 businesses participated.
- Extension's **Center for Community Vitality** hosted a daylong symposium on Minnesota's workforce for researchers, scholars, and staff. The symposium connected Extension to research and scholarship that can help address issues related to workforce attraction and retention for the state's employers and economic development leaders.
- The **Department of Design, Housing, and Apparel**—in partnership with the Fort Road Federation and the St. Paul Mayor's Advisory Committee on Aging—developed a questionnaire to obtain resident responses about housing challenges in the West 7th neighborhood of St. Paul. Over 250 responses have been received and analysis is underway. The findings from the research will inform the community's ten-year plan.
- Since the 2015 passage of the state's Cottage Food Exemption, which allows Minnesota residents to manufacture and store foods in an unlicensed kitchen, Extension's **Food Safety Team** has helped to provide critical training to entrepreneurs. To expand training, an online course was developed in 2017. Combined with twelve in-person courses, the Food Safety Team trained 279 food entrepreneurs.

Improving the Environment and Fostering Sustainability

- Two hundred volunteers participated in Extension's inaugural **Starry Trek**. Volunteers were trained to identify Starry stonewort, an invasive algae found in ten Minnesota lakes. Volunteers searched 178 lakes statewide and as a result, identified one new finding which allows the Minnesota Department of Natural Resources to take action quickly.
- The **Institute on the Environment**, through Acara Impact Entrepreneurship, taught 195 students how to develop interdisciplinary solutions to environmental problems, and funded the launch of eleven of these solutions in Minnesota, Uganda, India, Haiti, Nicaragua, Colombia, Peru, and Finland.
- The **Technical Assistance Program** (MnTAP) is matching third- and fourth-year college student interns with long-term projects to reduce waste and improve efficiency at local businesses and municipalities. Participating students spend the summer using knowledge of engineering and environmental health to develop real-world conservation strategies that help prevent pollution, reduce energy consumption, and raise profits. During Summer 2017, 17 interns were placed across the state and since the program's inception in 1985, MnTAP interns have saved sponsoring organizations over \$10.5 million.
- Extension's **Regional Sustainable Development Partnerships** (RSDP) brought together 345 partners on 122 community-driven sustainability projects across Minnesota working on issues ranging from water quality, to local foods and supply chains, to clean energy and economic development. In addition, RSDP has launched a story map of 124 supported community projects across greater Minnesota. The digital map is searchable by region or sustainability focus area and provides information on each of RSDP's community-based projects across the state.
- The **Natural Capital Project**, in partnership with the Minnesota Department of Health, has created a story map called *The True Value of Water: Drinking Water Protection in Minnesota*. The interactive website aims to build a deeper

understanding of the complexity of drinking water issues in Minnesota, drawing on data from state agencies and firsthand accounts from the Minnesota Rural Water Association. In addition, over 200 individuals from federal and state agencies participated in workshops offered by the Natural Capital Project on topics ranging from continental-scale monarch conservation planning, to aquatic species management in Minnesota, to the value of natural capital on golf courses with the U.S. Golf Association.

- Extension's **Natural Resources Team** recruits, trains, and supports Minnesotans who volunteer for citizen science projects statewide. In 2017, 1,295 volunteers reported a total of 85,369 service hours to statewide environmental stewardship, with an impact on 1,044,809 acres.
- As a student-led initiative, the **Engineers Without Borders** chapter develops students as humanitarians, engineers, and leaders. Working primarily on issues of water access, the program is currently partnering with communities in Guatemala and Ethiopia to design and implement water access solutions such as drip irrigation systems and harvesting rainwater.

Ensuring Equity and Diversity

- The Center for Urban and Regional Affairs' **Artist and Neighborhood Partnership Initiative** offers technical assistance and 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. This year, 13 grants were awarded.
- The **Healthy Food, Healthy Lives Institute** and the Shakopee Mdewakanton Sioux Community co-hosted the second annual conference on Native American Nutrition in September 2017. The conference brought 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. The 500 conference participants came from 37 states and four Canadian provinces, as well as

Mexico and New Zealand; 60 percent of attendees were Native American, representing dozens of tribes.

- The **Immigrant Stories** project, coordinated by the Immigration History Research Center, has collected over 300 stories representing more than 50 different communities from recent 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 through its innovative story-making.
- The College of Design hosted the **Building Bridges to Design Careers** workshop and summer camp for underrepresented students of color. The programming offered daily exercises about design, three-dimensional modeling, and digital fabrication and their intersection with math and science for 40 students grades K–12.
- A researcher with the **Center for Urban and Regional Affairs** represented the University as a panelist for a federal congressional briefing entitled “Children and Families Facing Eviction.” University community-engaged research on urban housing, community economic development, and race and gender data were brought to a conversation that examined cross-sector solutions for instability caused by eviction.

Addressing Food and Agricultural Concerns

- The **Healthy Foods, Healthy Lives Institute** supported twelve new interdisciplinary teams with \$440,000 from the Community-University Partnership Grant Program, the University Faculty Research Program, and the Graduate and Professional Research Grant Program. Team projects ranged from creative approaches to healthy food incentives for North Minneapolis retailers to neuroinflammatory biomarkers in obesity and cognitive decline.
- To help communities better understand the impact of large-scale shrimp aquaculture in southwest Minnesota, the Extension **Center for Community Vitality** measured the potential economic impact of a shrimp harbor. The calculated economic impact was \$48.3 million during construction and \$23.7 million during operation. The study

convinced the Minnesota legislature to support the aquaculture industry, and the city of Luverne gave 60 acres of land to the project valued at \$382,560.

- Through the **Center for Agriculture, Food and Natural Resources**, Extension held 55 Pesticide Safety Education Recertification Workshops for 1,790 attendees across the state. Based on the workshop evaluations, 95 percent of people indicated they were more likely to read pesticide labels before use—a key behavior in protecting people and the environment and for effective pest management.
- In the past year, 2,342 **Master Gardener** volunteers provided 145,134 volunteer hours in 79 counties throughout Minnesota. The Master Gardeners installed 14 rain gardens for 26,310 square feet, installed 45 pollinator gardens for 17,886 square feet, were involved with 188 community gardens, donated 43,379 pounds of produce to food banks and pantries, worked with 103 school-based gardens, and assisted with landscaping at 40 Habitat for Humanity homes.
- Farmers participating in marketing groups coordinated by **Extension** averaged 5 cents per corn bushel more than farming peers and 24 cents more per soybean bushel. This increase has meant a total average increase for participating farmers of nearly \$10,000 over their peers.

Improving Health, Medicine, and Well-Being

- All senior-level students in the **School of Dentistry** are required to spend approximately ten weeks of their training in outreach clinics. The University has 15 outreach clinics; eleven in Minnesota, three in South Dakota, and one in North Dakota. In the last ten years, students have reported producing over \$43 million worth of dental services in outreach clinics.
- The **College of Veterinary Medicine** signed a Memorandum of Agreement with the Global Food-and-mouth Disease Research Alliance (GFRA), a worldwide alliance of research institutions, including the World Animal Health Organization and United Nations Food and Agriculture Organization. The goal of the alliance is to control the disease worldwide, to contribute to the economic and social development of countries

worldwide, and to protect the agricultural sector of developed economies. The University is the only higher education institution in North America that has been recognized with the highest level of membership with the alliance.

- The 2018 **Summer Institute in Adolescent Health**—a partnership between the School of Nursing’s Center for Adolescent Health, the Medical School’s Prevention Research Center, the Minnesota Department of Health, and the Minnesota Department of Education—focused on adolescent health and technology use. The institute brought together over 50 researchers and practitioners for three days to explore how professionals and parents can promote the healthy use of technology for teens, creating a balance of both exposure and access.
- The **College of Pharmacy**, in partnership with Fairview Pharmacy services, was chosen to participate in Community Management of Medication Complexity Innovation Lab, a multisite demonstration that identifies and tests community-based strategies to improve medication safety for people with complex health and social needs.
- The Center for Bioethics hosted its biannual **Mini Bioethics Academy** series in the fall and spring. Over 50 people participated in the fall series with topics including meaningful work, food justice, and healthcare’s environmental responsibility. In the spring series, which focused on opioids, 100 people attended to learn about the ethical issues of opioid addiction. In the late spring the center also hosted a cross-disciplinary forum on ethics of climate change in which over 50 people from public, private, and nonprofit sectors attended.

Deepening Interdisciplinary Collaborations through 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, like the Somalia Rebuild Organization, where students tutor Somali youth; Family Services Rochester, where students spend time with elderly community members; and Olmstead County Public Health, where students assist with community health needs assessment and health improvement plans.

- A series of research projects underway since the early 2000s has culminated in a pavement design package that will enable cities, counties, and the state to build more financially effective roadways. More than 50 individuals contributed to these projects and included expertise from the University’s **College of Science and Engineering** and the **College of Food, Agricultural and Natural Resources Sciences**, the Minnesota Department of Transportation, the Minnesota Local Road Research Board, and Jackson, Lincoln, and Polk counties. In addition, these projects were supported by private-sector expertise.
- Each year the **Center for Integrative Leadership** invites a small number of highly accomplished leaders from the private sector, academia, government, and the nonprofit sector to be Executive Leadership Fellows. Fellows bring their expertise to the center and the University and, in turn, benefit from being a part of the University community. Currently there are six fellows representing Friends of the Mississippi River, Minnesota Historical Society, Interfaith Outreach and Community Partners, University of Minnesota, Civic Consulting Minnesota, and Navega Strategies, LLC.
- The **Resilient Communities Project** partnered with the City of Ramsey on 21 projects on issues ranging from lifecycle housing and economic development to historic preservation and natural resource management. Projects were matched with 20 courses across 16 academic departments, providing more than 275 students with engaged, experiential learning opportunities.
- 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 issues. During 2017–2018,

UROC completed 61 research projects, involving over 100 community partners, 77 faculty partners, 115 University staff members, and 349 students. These projects addressed issues pertaining to education and lifelong learning, health and wellness, and economic development and community development. In addition, UROC initiated pilot projects around a North Minneapolis transportation shuttle and a departmental-community engagement model known as Neighborhood U.

- 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 175 maps for 47 different organizations, totaling 65 separate projects.
- The **Minnesota Evaluation Studies Institute** launched *A Field Guide to Ripple Effects Mapping*, a new ebook published by **University of Minnesota Libraries** that focuses on the emerging evaluation technique of Ripple Effects Mapping. This participatory data collection method is design to capture the impact of complex programs and collaborative processes and has been used to strengthen evaluation of community-university partnerships and other community-engaged programs in higher education.

Addressing Critical Issues for 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 125,000 students in 232 schools in ten states (Minnesota, Wisconsin, North Dakota, Michigan, Connecticut, Ohio, Oregon, Kansas, Texas, and Utah) are being served by the program.

- Extension's **Center for Youth Development** engaged 69,000 students and 11,000 adult volunteers to carry out school-time youth programs across Minnesota, working on issues related to youth leadership/civic engagement, STEM, agriculture, and educational pathways. In addition, the Center partnered with a Somali-American-youth-serving organization to develop and deliver three yearlong youth programs in the Twin Cities, reaching Somali immigrant and refugee youth and families with programming related to STEAM. It also partnered with the White Earth and Upper and Lower Sioux tribal communities and American Indian Magnet School (St. Paul) to offer youth development programming on indigenous culture preservation, natural resources, and youth leadership.
- 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 2,000 educators at districts across Minnesota, Wisconsin, Iowa, and California. In addition, nearly 300 educators attended PRESS workshops at the University to learn and implement the framework.
- The inaugural **Northern Great Plains Youth Institute** was held on the Crookston campus in May. The institute, an official World Food Prize event, is an opportunity for high school students to engage with local leaders and experts on critical global challenges. The student participants presented their research and recommendations on ways to solve key global challenges with statewide experts and took part in several workshops at the University. All participating students were recognized as Borlaug Scholars, making them eligible for scholarships to attend the University of Minnesota Crookston.
- The **Institute for Global Studies** offered twelve workshops and two two-week institutes for K–12 educators, providing professional development on global topics to 216 teachers. In addition, a partnership with Boston University's African Studies Center resulted in the University of Minnesota traveling with twelve teachers from across the United States to Madagascar to write curriculum related to global studies.

- Through a partnership between the **College of Liberal Arts (CLA)** and the Minnesota Historical Society, more than 27,000 K–12 students participated in Minnesota History Day. CLA hosted more than 1,300 students and their parents and provided 65 undergraduate History Day Mentors to more than 700 students in Minneapolis, St. Paul, and surrounding suburbs to assist with History Day projects. In addition, more than 2,000 students toured Wilson Library.
- The College of Education and Human Development's **Individual Growth and Development Indicators Lab** received a \$400,000, two-year grant from the Institute for Education Services to explore, understand, and document Hmong language development in partnership with St. Paul Public Schools. The research will be used by educators to assess Hmong preschool children's early language and literacy skills. Over the last decade the lab has secured over \$5 million in funding for similar projects.
- Through their courses, students from the **College of Design** have been partnering with St. Paul's Bruce Vento Elementary School to explore what impact the school's interior learning environment has on students' well-being. The partnership has led to a University of Minnesota-designed calming room that uses interactive features and minimalistic visual design to relax students.
- The **College of Education and Human Development's** school partner network convened 53 school partners, five school district-based employees, and 55 University faculty and staff to improve teacher prep and student learning. The event featured a keynote presentation by Minnesota's 2017 Teacher of the Year and a session on mindfulness in the classroom with teachers from Minneapolis Public Schools.

The school partner network provides a space to improve P–12 student learning and engagement, mentor new teachers, connect initiatives and resources, and engage in joint continuous improvement. The network is part of the Teacher Education Redesign Initiative sponsored by the Archibald Bush Foundation.

- Supported by the **Department of Gender, Women, and Sexuality Studies**, the Minnesota Youth Story Squad, which works with youth to help them tell their stories, trained 13 new undergraduate interns to deliver digital story curriculum to 200 eighth graders in Minneapolis Public Schools. Several of the digital stories that were created were shown at their graduation ceremony at Northrop, which was hosted by the College of Liberal Arts.
- Integrated Science Education Outreach (InSciEd Out) is a partnership between the Mayo Clinic and the **College of Biological Sciences** committed to rebuilding pre-K–12 science education. InSciEd Out trains educators to offer engaging science class activities and curriculum to their students, while helping students envision their future in a STEM-related career. The program hosted its first annual poster session in collaboration with undergraduate students from the Foundations of Biology course. Elementary and middle school students were able to share their research with college students and learn about undergraduate research opportunities.

These selected examples represent only a small portion of what the University addresses through community-partnered research, teaching, and outreach. For a more complete list 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 25,000 employees throughout Minnesota, the University is the state's fifth-largest employer, generating more than \$8.6 billion a year in economic activity to the state of Minnesota—including supporting more than 77,000 jobs and providing more than \$470 million in state taxes. Employees account for about 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." This year marked the second time since 2015 that *Forbes* recognized the University as one of America's Best Employers.

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 fifth 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.

Participation in the Employee Engagement Survey is one of the gold measures on the University's **Progress Card**, and the response rate for both staff and faculty continues to grow. In the most recent survey, conducted in 2017, 74 percent of staff and 62 percent of faculty participated for an overall rate of 71 percent, a new high. The Board of Regents established a target of 72 percent overall participation by 2021.

Engagement results from 2017 continue to show very high levels of faculty and staff commitment and dedication that exceed the levels of many top-performing private companies worldwide. In the 2017 survey, 87 percent of staff and 83 percent of faculty agreed with the statement "I feel proud to work for the University of Minnesota." 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.

The survey data isn't just collected—it is acted on. Every department in the University system receives results specific to their unit, showing how their employees responded to dozens of detailed questions. Managers are encouraged to focus on areas to improve and to share their most effective ideas for increasing engagement. Colleges and units have appointed engagement leads who participate in an ongoing community of practice where they can gather insights and ideas from colleagues across the University.

The University's engagement program is one of the most robust among higher education institutions in the United States. What makes it unique is the 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. Employee engagement processes and results have been presented nationally and internationally to human resource academics and practitioners from other colleges and universities.

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 been recognized in many major academic award categories, including the Andrew Carnegie Fellowships (two), the American Academy of Arts and Sciences (ten), the American Association for the Advancement of Science fellows (nineteen), Guggenheim Fellowships (nine), the National Academy of Engineering (five), the National Academy of Medicine (two), the National Academy of Public Administration (four), and the National Academy of Sciences (five).

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. Apostolos Georgopoulos (neuroscience) was awarded the American Legion Distinguished Service Medal, and the National Medal for Museum and Library Service was awarded to the University Libraries.

In 2018, for the third consecutive year, the School of Nursing was recognized with the Health Professions Higher Education Excellence in Diversity Award from INSIGHT Into Diversity Magazine. Shaden Tageldin, associate professor of Cultural Studies and Comparative Literature and director of the African Studies Initiative, was awarded a National Endowment for the Humanities Fellowship for 2019. Robert Vince, director of the Center for Drug Design, was named a fellow of the National Academy of Inventors. John Bryson, public affairs, received the H. George Frederickson Award from the Public Management Research Association. Michael Osterholm, public health, was selected by the U.S. Department of State as one of five 2018 U.S. Science Envoys. Stephen Shuman, dentistry, was named a fellow by the Gerontological Society of America. Associate Professor Casey Hooke was selected as a fellow to the American Academy of Nursing. Mechanical Engineering Professor Uwe Kortshagen was elected as a fellow of the American Physical Society. Kinesiology professor Diane Wiese-Bjornstal was named a fellow by the National Academy of Kinesiology.

An Emphasis on Diversity and Inclusion

The University has made a strong commitment to building a workforce that reflects the diversity of our community. Increasing diversity is a top priority of the University, and one explicitly outlined in the Twin Cities campus strategic plan. In 2018, the University was named by *Forbes* as one of America's Best Employers for Diversity. More than 50 "Campus Climate" initiatives and projects across the University and in individual colleges and departments are devoted to promoting diversity, understanding, and inclusiveness on all campuses. Selected programs include:

- **Interdepartmental collaboration:** The University's 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 to expand efforts to attract diverse candidates to the 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 training for faculty and staff involved in hiring decisions:** The Implicit Bias Education Program is jointly sponsored by the Office for Equity and Diversity, the Office of the Executive Vice President and Provost, the Graduate School, the Office of Human Resources, and the Office of Admissions. 2017–2018 trainings include “Identifying & Challenging Implicit Bias” workshops for faculty involved in search committees and making graduate program admission decisions.
- **Diversity Community of Practice:** This grassroots community of faculty and staff from collegiate units across the Twin Cities campus meets monthly to create innovative strategies for meeting equity and diversity goals on the Twin Cities campus.
- **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 at Work. The affinity groups help in networking and recruiting job candidates and in retaining top talent at the University.
- **Diversity recruiters:** OHR has hired six talent acquisition professionals who help to identify and recruit 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.

In the 2017–2018 fiscal year, LTD’s leadership courses drew more than 2,000 participants. Programs include:

- “Leading on All Levels,” an in-person cohort program for individual contributors.
- “Leadership Essentials,” an intensive four-day course for supervisors to strengthen core leadership skills.
- “Supervisory Development Course,” a flexible online and on-demand course for supervisors across the University that covers areas such as “Feedback and Coaching,” “Managing Conflict,” and “Leading Teams.”

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.

Academic chairs and heads—department executive officers—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 for department executive officers 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, annual reviews of faculty, and climate and sexual misconduct to ensure that these leaders are knowledgeable about policies and procedures.

In addition, the University has greatly expanded its participation in the **Big Ten Academic Leadership Program**, sponsored by the Big Ten Academic Alliance. University 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 competitive salaries and benefits, challenging and rewarding work, clear paths for advancement, a comprehensive compensation package, and a strong emphasis on health and wellbeing. 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 to more than 19,000 enrolled employees and more than 39,000 total members, including family members.

The University aggressively manages its health benefits costs by focusing on value: cost-effective care that is responsive, comprehensive, error-free, and high-quality. Health benefits management strategies include:

- self-insuring with UPlan;
- negotiating with vendors for cost savings and establishing performance guarantees;
- managing pharmacy costs through increased generic-drug usage;
- guiding members to the most efficient and effective networks, such as Accountable Care Organizations (ACO)—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, UPlan costs have been significantly below the national health care trend in four out of the last five years, including projected costs through 2018.

Wellbeing Program

For more than ten years, the University has offered an extensive Wellbeing Program to increase the health, fitness, emotional, and overall wellbeing of its faculty and staff on all of its campuses. The program has been very well received by employees, and the University continually looks for ways to enhance its offerings. By participating in the University-sponsored Wellbeing Program, employees can earn points that translate into \$500 to \$750 in savings on their insurance premiums

for the following year. Wellbeing programs include health assessments, fitness, health coaching, and programs to encourage healthy habits, manage weight, live with chronic illness, and reduce stress.

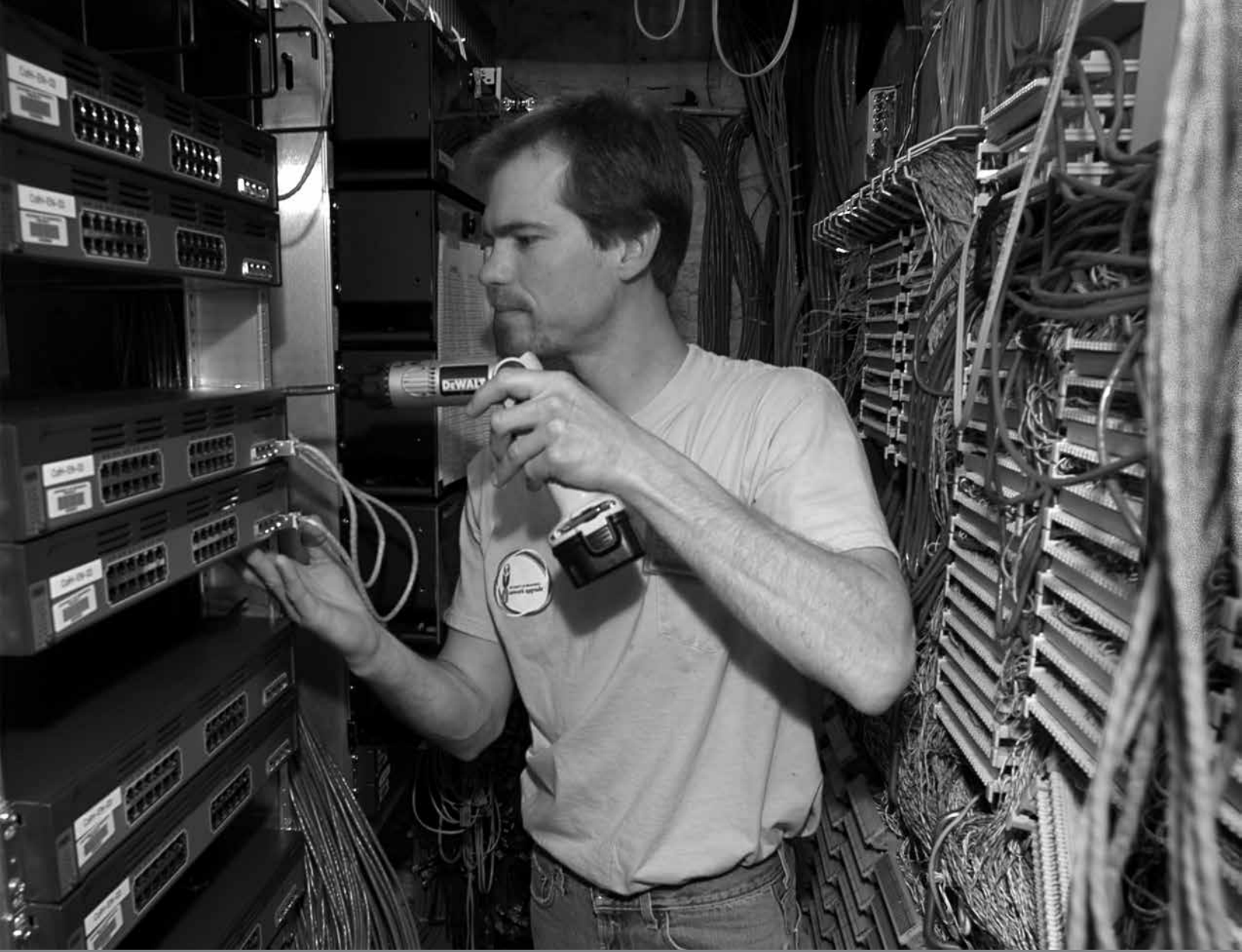
In the most recent program year, which ended in 2017, the Wellbeing Program achieved these performance milestones:

- 65 percent of University employees took part in the program; 41 percent finished.
- 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 University Wellbeing Program outperforms other universities and large employers. Benchmark research conducted by the Health Enhancement Research Organization gave the University a score of 157 compared to a score of 109 for other universities and 105 on average for companies with more than 5,000 employees. The criteria for scoring included strategic planning, organizational support, programs, participation strategies, 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 the 2018 campaign on the Twin Cities campus, employees contributed \$1.36 million for local federations and nonprofits. Since 1995, the drive has raised more than \$24 million for worthy causes in Minnesota. The University 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 wellbeing. Research shows the simple act of donating money or volunteering enhances wellbeing 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 missions. Over the past two years, the SVP units have developed into a leadership team that works together to support the mission of the University.

Lower Debt Financing Costs

During fiscal year 2018, the University advance refunded \$306.2 million of existing tax-exempt and taxable debt to take advantage of lower interest rates prior to the tax law change effective December 31, 2018. The weighted average interest rate obtained for the tax-exempt refinanced debt was 2.329 percent and for the taxable refinanced debt was 2.648 percent. As a result of the refinancing, the University will save \$28.6 million in interest costs over the remaining life of the refinanced bonds.

Additionally, the University obtained approval from the Board of Regents to expand its short-term borrowing capabilities by increasing the current

commercial paper (CP) program to a maximum size of \$400 million. This allows the University to issue CP Notes as needed to borrow short-term funds for capital projects during the construction period at very low short-term, variable rates that are lower than long-term fixed rates on bonds. The effect will lower overall capital financing costs on capital projects. In addition, a marginal increase in investment earnings during the construction period is anticipated because the University can invest its cash at slightly higher rates than what it pays on the CP issued. The first CP issuances under this program occurred in summer 2018.

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.

Travel & Employee Expense Reimbursement Processes

The University spends approximately \$63.7 million per year on travel related to sponsored research, intercollegiate athletics, study abroad programs, and other non-sponsored activities. Prudent management of travel costs, as well as tracking international travelers for “duty of care,” are key reasons why the University is implementing a new software tool for managing employees’ travel and employee expense reimbursements. The University conducted a pilot of the new system between March and the end of June 2018. Eleven major colleges and administrative units on the Twin Cities and Duluth campuses used the new system and job aids during the pilot, providing feedback on the new processes, tool, and materials. Metrics for the first ten weeks of the pilot included:

- 1,097 individuals accessed the system;
- 2,513 electronic expense reports were created, including 255 by faculty;
- 2,398 electronic expense reports were approved;
- 582 new UTravel credit cards have been issued;
- 61 percent of the overall spend has been through the new UTravel card; and
- 90 percent of expense reports have been created by the person incurring the expense rather than a delegate.

Feedback from the pilot has been used to inform decisions on the final configuration of the system, which is being released to the rest of the University beginning in fall 2018. Processes and tools have been redesigned to enhance efficiency, maximize the traveler experience, and create a scalable model for the entire University. The new system will be fully operational by the end of fiscal year 2019.

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 0.4 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

The cost benchmarking analysis 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 and Facilities and the Leadership and 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

This analysis 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 Cities 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

This review helps predict and track structural imbalances in unit budgets. As part of the regular budget process, each unit's balances and annual revenues and expenditures (actual and budgeted) are reviewed in a way that helps identify situations in which recurring revenues are less than recurring expenditures. For units appearing to have such imbalances, staff 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, campus planning, capital project management, leases and real estate, maintenance, and custodial work. To meet the continuing challenge of tighter budgets, caring for more complex and aging facilities, and integrating information to support better decision-making, the University is in the implementation phase of an Enterprise Asset Management system. The new system is replacing 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.

Continued Diversification of the Twin Cities Energy Portfolio

The University holds a goal of reducing greenhouse gas emissions by 50 percent by 2020 (**Progress Card Measure**). Progress in recent years has been made through recommissioning facilities, converting to LED lighting, and making long-term contracts with solar community gardens and Renewable Connect subscriptions with Xcel Energy. In the future, onsite solar PV arrays will contribute to the diversification. The Main Energy Plant received final certification and entered service in November 2017. The plant operates 24/7, with a generating capacity of 22.8 mW of electricity and 272,000 pounds of steam per hour for the Twin Cities campus in Minneapolis. This technology makes use of the waste heat from the generation of electrical power, resulting in efficiencies of up to 83 percent of the energy input. This system is more cost-effective (net savings of more than \$2 million per year after debt service), reliable (provides redundancy to the existing southeast steam plant and Xcel Energy services), and sustainable (approximate net 12 percent reduction in carbon footprint) than before. Taken together, these initiatives have reduced the demand for traditional retail energy on the Twin Cities campus to just 39 percent.

Advancing Board of Regents' Housing Goals

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 ten percent of incoming transfer students to be living in University-managed housing. When this plan is realized in 2020, Housing and Residential Life will be prepared to support these goals. The University completed the purchase of Keeler Apartments in March 2018. These 160 beds have been master-leased since 2016, and will now be a permanent part of the housing portfolio. In addition, the renovation of Pioneer Hall and consolidation of Superblock dining facilities remains on track for a fall 2019 opening. Research shows that students who live in University housing

for their first year have higher GPAs and higher four-year graduation rates. When the Pioneer project is complete, Housing and Residential Life will have sufficient, high-quality residence hall capacity for all first-year students who wish to live in University housing.

On the Duluth campus, work is underway on a long-range plan for University housing. This work, when complete, will identify phases for new facilities, strategic renovation, and removal of existing housing that has reached the end of its lifecycle. The plan will also inform timing of housing projects to meet current and expected student demand.

Advancements in Information Technology

Academic Technology

The transition from the University's legacy course management system (Moodle) to Canvas, a state-of-the-art platform, continues this year. Canvas gives 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.

Two-Factor Authentication

This year, the University is taking meaningful action to help protect students, faculty, staff, and systems by requiring Duo Security (two-factor authentication) at the University sign-in page.

The requirement, which is being rolled out over the course of twelve months beginning in November 2018, will help protect paychecks, financial aid, sensitive information, and more.

Network and Cybersecurity Upgrade

The multi-year upgrade and modernization of the University's legacy network (which was last upgraded in 2004) and cybersecurity tools continues. The initiative will increase network speed and capacity ten-fold, and employ threat-monitoring, log management, denial of service, and firewall technologies.

Technology Portfolio

The newly built Technology Portfolio aids information technology professionals and decision makers who are responsible for the adoption or purchase of technologies. The Portfolio offers use guidance, service delivery information, technical details, and more. To date, all technology services provided by the Office of Information Technology have been added to the Portfolio. This year, colleges and support units will add information on the technologies they provide.

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 Randy R. Simonson

Congressional District 1
Elected in 2018
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

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

Chris Cramer

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
Vice President for Clinical Affairs

Michelle Behr

Chancellor, University of Minnesota Morris

Lendley Black

Chancellor, University of Minnesota Duluth

Lori J. Carrell

Chancellor, University of Minnesota Rochester

Mary Holz-Clause

Chancellor, University of Minnesota Crookston

APPENDIX D:

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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 in decline for several years, only returning to FY2012 levels in FY2017. 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 2017, the University of Minnesota's medical school received \$143 million in NIH awards and ranked 33rd in the country. In 2017 the University of California – San Francisco Medical Center was the top-ranked school in the country, with \$527 million in NIH awards. Minnesota ranked 4th in the Big Ten, behind Michigan (12th), Northwestern (18th), and Wisconsin (24th). The Mayo Clinic in Rochester was 17th in the country in NIH funding in 2017.

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 2017, the New York University School of Medicine, had \$232 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 ten public research universities nationally in prestigious faculty 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 two 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 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 students of color favorable sense of belonging response match that of all other students—white, international, and students of unknown race/ethnicity—in the aggregate.

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.

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 Governor Dayton's blue-ribbon commission 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.

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 to be among the top ten 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 ten 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. 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 (2015–2020) 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. This analysis 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 metric 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 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.



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