



Faculty and Staff Retirement Programs Annual Report Fiscal Year Ending June 30, 2017

Retirement Plan and Program Analysis for the Fiscal Year Ending June 30, 2017

Financial Analysis

The University of Minnesota sponsored or contributed to 12 retirement plans and programs for its faculty and staff in the fiscal year ending June 30, 2017 (Appendix A). University contributions to these plans during the year were almost \$138 million. The University offers its faculty and staff a mix of defined contribution and defined benefit plans and programs, with substantially all full-time employees participating in one of several mandatory plans. Voluntary pre-tax savings plans are available to all employees paid on a regular basis.

Defined Benefit Plans

Defined benefit (DB) plans pay a certain monthly benefit at retirement, generally calculated using a percentage of compensation multiplied by years of service. For example, the Minnesota State Retirement System (MSRS) pays retirees a monthly benefit equal to 1.7% multiplied by the participant’s average monthly compensation during his or her highest 5 years of service, multiplied by the participant’s years of service. For a career employee with 35 years of service and a starting salary of \$50,000, MSRS pays a monthly benefit of approximately 57% of the employee’s final monthly salary. This percentage is commonly known as the plan’s replacement ratio. Because a DB plan defines the benefit, not the funding level, risk is born by those entities responsible for funding the plan. As employers and employees share the funding requirements for MSRS, they similarly share the risk that contribution levels will need to increase in the future to cover benefits payable.

The July 1, 2017, MSRS valuation indicates that the contributions, made as of that date, total 11.0%, approximately 2.24% below the Chapter 356 statutory required level of 13.24%. In addition, based on actuarial values, assets as of July 1, 2017, are anticipated to fund approximately 90.10% of promised benefits on a market value basis.

MSRS is the largest DB plan at the University, covering approximately 8,600 Civil Service and collectively bargained employees. The MSRS replacement ratio is identical to that of the defined benefit plans offered by the University’s five benchmark public entities. Required contribution rates, however, are higher, as detailed below.

Figure 2 – Defined Benefit Benchmarks

<i>Public Entities</i>	<i>Percentage of Pay</i>	<i>Current Employee Contribution</i>	<i>Current Employer Contribution</i>	<i>Estimated Replacement Ratio</i>
University of Minnesota	1.7%	5.5%	5.5 %	57%
State of Minnesota	1.7%	5.5%	5.5%	57%
Ramsey County	1.7%	6.5%	7.5%	57%
Hennepin County	1.7%	6.5%	7.5%	57%
City of Minneapolis	1.7%	6.5%	7.5%	57%
City of St. Paul	1.7%	6.5%	7.5%	57%

Defined Contribution Plans

Defined contribution (DC) plans do not promise a benefit at retirement. Instead, DC plans promise a certain contribution level, which is generally invested according to the participant’s direction. As a result, the participants, rather than the employer, bear the risk that their investments will not result in adequate retirement income.

Faculty Retirement Plan (FRP)

As of June 30, 2017, FRP assets totaled over \$4.0 billion, with annual contributions of over \$141.2 million. Depending on the employee’s date of hire, employees contribute either 2.5% of salary (for hires before January 2, 2012) or 5.5% of salary (for those hired January 2, 2012 and later). The University contributes the remainder of a total of 15.5% contribution, which is deposited according to employees’ investment instructions each pay period. The plan offers 39 investment funds through Securian Retirement Services, Fidelity, and Vanguard. TIAA-CREF funds were closed to new contributions and transfers as of July 1, 2007. Vanguard holds a majority of FRP funds with 47% of total assets. Securian follows with 35% of total assets. TIAA-CREF and Fidelity trail with approximately 10% and 8%, respectively. The investment funds with the largest asset base as of June 30, 2017, are listed in Figure 3 below. Details on the best- and worst-performing investment funds in the FRP are included in Appendix B.

Figure 3 – Top 3 FRP Funds by Assets Invested as of June 30, 2017

<i>Investment Fund</i>	<i>FRP Assets Invested 06/30/17</i>
Minnesota Life General Account Limited*	\$999,977,752.15
Vanguard Institutional Index	\$541,630,857.50
Minnesota Life General Account*	\$232,369,153.58

*Additional information regarding the company credit ratings and fund size of the insurance company general accounts is included in Appendix C.

The FRP, covering approximately 9,400 faculty and professional and administrative (P&A) staff, is the largest DC plan at the University of Minnesota. Most of the other top 10 public research universities have defined benefit plans, making comparisons difficult. The other defined contribution plans, however, generally have higher replacement ratios and higher contribution rates as shown in Figure 4 below.

Figure 4 – Defined Contribution Benchmarks

<i>Public Research Universities</i>	<i>Employee Contribution</i>	<i>Employer Contribution</i>	<i>Estimated Replacement Ratio</i>
University of Minnesota	2.5% (5.5% as of 1/2/12)	13.0% (10% as of 1/2/12)	67%
University of Florida (DB Plan)	N/A	N/A	N/A

University of Illinois (DB Plan)	N/A	N/A	N/A
University of Michigan	5.0%	10.0%	65%
Ohio State University (Choice - DC Plan)	12%	14%	97% *
Penn State University (DB Plan)	N/A	N/A	N/A
University of Texas (DB Plan)	N/A	N/A	N/A
University of California Berkeley (DB Plan)	N/A	N/A	N/A
University of California Los Angeles (DB Plan)	N/A	N/A	N/A
University of Washington Seattle	5%-10%	5%-10%	67%
University of Wisconsin (DB Plan)	N/A	N/A	N/A

* No Social Security

Optional Retirement Plan (ORP)

As of June 30, 2017, ORP assets totaled over \$1.2 billion, with nearly 4,000 full- and part-time employees contributing almost \$46.0 million in the previous twelve months. Employees may contribute a minimum of \$200 annually up to 100% of compensation. The maximum contribution for employees under age 50 in 2017 is \$18,000. The maximum contribution for employees age 50 and over in 2017 is \$24,000. The University may make discretionary contributions for select staff, based on employment contracts. Only 9 such contributions were made for the 2016-2017 fiscal year. The plan offers over 300 investment funds from Securian Retirement, Fidelity, DWS, and Vanguard. Some additional funds are invested at T Rowe Price, though T Rowe accounts have been closed to new contributions since the early 1990s. TIAA-CREF funds were closed to new contributions and transfers as of July 1, 2007. The investment providers and funds with the largest asset base as of June 30, 2017, are listed in Figures 5 and 6 below. Details on the best- and worst-performing investment funds in the ORP are included in Appendix D.

Figure 5 – ORP Assets by Investment Provider as of June 30, 2017

<i>Investment Provider</i>	ORP Assets Invested 06/30/17
Fidelity Investments	35.4%
The Vanguard Group	29.0%
Securian Retirement	25.9%
TIAA-CREF	7.4%

DWS Scudder Investments	2.2%
T Rowe Price	0.1%

Figure 6 – Top 3 ORP Funds by Assets Invested as of June 30, 2017

Investment Fund	ORP Assets Invested 06/30/17
Minnesota Life General Account Limited*	\$175,766,061.24
Fidelity Contrafund	\$70,198,778.83
Minnesota Life General Account*	\$46,360,149.75

*Additional information regarding the company credit ratings and fund size of the insurance company general accounts is included in Appendix C.

Section 457 Deferred Compensation Plan (457 Plan)

As of June 30, 2017, 457 Plan assets totaled almost \$207 million, with almost 1,000 full- and part-time employees contributing over \$14.2 million in the previous 12 months. This plan is significantly smaller than the ORP because it has only been available since 2002. Employees contribute any amount up to 100% of compensation annually. The maximum contribution for employees under age 62 or over age 64 in 2016 was \$18,000. Additional contributions are available for those who are age 62, 63, or 64 during the year. These contribution limits are in addition to those contributions permitted to the ORP. Contributions to the ORP and 457 plans are not mutually exclusive – that is, an employee may contribute to both plans at the same time.

The plan offers over 300 investment funds from Securian Retirement, Fidelity, and Vanguard. TIAA-CREF funds were closed to contributions and transfers as of July 1, 2007. Unlike the ORP, DWS elected not to participate in the 457 Plan. In addition, the General Account and the TIAA Traditional Annuity (RA) are not available in the 457 Plan. The investment providers and funds with the largest asset base as of June 30, 2016, are listed in Figures 7 and 8 below. Details on the best- and worst-performing investment funds in the 457 Plan are included in Appendix E.

Figure 7– 457 Plan Assets by Investment Provider as of June 30, 2016

Investment Provider	457 Assets Invested 06/30/16
The Vanguard Group	49.0%
Fidelity Investments	23.6%
Securian Retirement	22.9%
TIAA-CREF	4.5%

Figure 8 – Top 3 457 Plan Funds by Assets Invested as of June 30, 2017

Investment Fund	457 Assets Invested 06/30/17
Minnesota Life General Account Limited*	\$25,243,877.30
Vanguard Institutional Index	\$10,562,536.19
SFT Advantus Index 500	\$6,966,623.70

*Additional information regarding the company credit ratings and fund size of the insurance company general accounts is included in Appendix C.

Communications and Educational Resources

In the 2016-2017 fiscal year, Employee Benefits staff offered various informational sessions on retirement topics to University faculty and staff. In addition to New Employee Orientation sessions and the Benefits Fairs in St. Paul, Minneapolis, Duluth, Crookston, and Morris, additional sessions were held throughout the year on the topic of the University’s voluntary retirement plans.

The Pre-Retirement Seminars are popular offerings each spring. (All active faculty and staff over the age of 50 are invited to these seminars, as well as spouses or partners.) Topics included sessions on Social Security and Medicare, retiree medical and dental insurance and estate planning.

All seminars are offered free of charge to faculty and staff. In addition to formal presentations, benefits counselors were available throughout the year for individual meetings and retirement planning sessions.

In addition to seminar and individual meeting efforts throughout the year, Employee Benefits provides significant information via both printed materials and the Employee Benefits web site. The website includes not only plan information and links to the investment provider websites, but also investment return reporting and fund listings, which are updated each quarter. The website, at z.umn.edu/retirement, continues to be the best resource for quick information on University retirement plans and programs.

Appendix A: Retirement Plans and Programs at the University of Minnesota

Plan/Program	Type*	Employee Group Participation	Eligible Active Employees on June 30, 2017	FY 16-17 Employee Contributions (millions)	FY 16-17 University Contributions (millions)
University of Minnesota Faculty Retirement Plan	DC	Faculty and Professional and Administrative Staff	9,400	\$32.4	\$108.8
University of Minnesota Optional Retirement Plan	DC	Substantially all Faculty and Staff	20,000+	\$41.3	\$0.3
University of Minnesota Section 457 Deferred Compensation Plan	DC	Substantially all Faculty and Staff	20,000+	\$14.2	N/A
Minnesota State Retirement System General Plan	DB	Civil Service and Represented Bargaining Unit Staff	8,600	\$23.4	\$23.5
Public Employees Retirement Association	DB	Law Enforcement Staff	63	\$0.6	\$1.0
Civil Service Retirement System	DB	Certain Federal Staff	15	\$0.1	\$0.1
Civil Service Retirement System Offset Retirement	DB	Certain Federal Staff	3	\$0.0	\$0.02
Minnesota Health Care Savings Plan	DC	Civil Service, LELS Teamsters, RIO	47	\$0.04	\$2.7
Federal Employees Retirement System	DB	Certain Federal Staff	73	\$0.05	\$0.9

University of Minnesota 415(m) Retirement Plan	DC	Select administrators	4	N/A	\$0.6
Phased Retirement Program	DC (Policy)	Tenured Faculty and Continuous Appointment Academic Professionals	N/A	N/A	N/A
University of Minnesota Supplemental Benefits Plan	DB (Policy)	Pre-1963 FRP participants and pre-1982 female FRP annuitants	90	N/A	\$0.02

*DC – Defined Contribution Plan, DB – Defined Benefit Plan

Appendix B: Faculty Retirement Plan Fund Performance as of June 30, 2017

Highest-Performing FRP Funds (Excluding Money Market Funds)

Investment Fund	Annualized Investment Return
1-year Return	
Fidelity OTC Portfolio	36.46%
Vanguard PRIMECAP	28.93%
Vanguard International Explorer	26.64%
5-year Return	
Fidelity OTC Portfolio	20.25%
Vanguard PRIMECAP	18.51%
Vanguard Growth Index	14.82%
10-year Return	
Fidelity OTC Portfolio	12.28%
Vanguard PRIMECAP	9.92%
Vanguard Growth Index	8.75%

Lowest-Performing FRP Funds (Excluding Money Market Funds)

Investment Fund	Annualized Investment Return
1-year Return	
Vanguard Inflation-Protected Securities	(0.82%)
Vanguard GNMA	(0.02%)
Vanguard Intermediate-Term Investment Grade	0.77%
5-year Return	
Vanguard Inflation-Protected Securities	0.20%

Vanguard GNMA	1.92%
Minnesota Life General Account	3.00%
10-year Return	
Vanguard International Value	1.03%
Vanguard Total International Stock Index	1.21%
Vanguard Emerging Markets Stock Index	1.59%

Appendix C: Insurance Company General Account Supplemental Information

Insurance company general accounts (Minnesota Life General Account, Minnesota Life General Account Limited and TIAA Traditional Annuity) are backed by the financial strength and claims-paying ability of the insurance company that offers the accounts. The company promises to pay interest on the principal at a rate stated by the company from time to time that will not decrease below a stated minimum. Some restrict the ability to transfer or withdraw funds. General Accounts are sometimes said to be "guaranteed;" this refers to the assurance of the company that it will protect the principal and pay interest at the stated rate, based solely on its financial strength and claims-paying ability, rather than on any back-up support by any third party. Additional information regarding the insurance companies' financial soundness may be obtained directly from them.

Company Credit Ratings (as of June 30, 2017)

<i>Credit Rating Agency</i>	<i>Minnesota Life</i>	<i>TIAA-CREF</i>
Standard & Poor's	A+	AA+
Moody's	Aa3	Aa1
A. M. Best	A+	A++
Fitch	AA	AAA

University of Minnesota Retirement Plan Holdings as of June 30, 2017 (in millions)

<i>Retirement Plan</i>	<i>Minnesota Life</i>	<i>TIAA-CREF</i>
Faculty Retirement Plan	\$1,232.3	\$140.7
Optional Retirement Plan	\$216.6	\$35.0
Section 457 Deferred Comp Plan	\$25.2	\$3.5
Total	\$1,474.1	\$179.2

Appendix D: Optional Retirement Plan

Fund Performance as of June 30, 2017

Highest-Performing ORP Funds (Excluding Money Market Funds)

<i>Investment Fund</i>	<i>Annualized Investment Return</i>
1-year Return	
Fidelity Select Technology	44.45%
Fidelity Select Electronics	41.15%
Fidelity Select Banking	39.82%
5-year Return	
Fidelity Select Electronics	23.15%
Fidelity Select Medical Equipment/Systems	21.84%
Fidelity Select Health Care	20.77%
10-year Return	
Fidelity Select Biotechnology	15.68%
Fidelity Select Medical Equipment/Systems	13.91%
Fidelity Select Software/Computer Services	13.82%

Lowest-Performing ORP Funds (Excluding Money Market Funds)

<i>Investment Fund</i>	<i>Annualized Investment Return</i>
1-year Return	
Fidelity Select Gold	(18.38%)
Deutsche Gold and Precious Metals	(18.23%)
Vanguard Precious Metals and Mining	(7.84%)

5-year Return	
Deutsche Gold and Precious Metals	(11.40%)
Fidelity Select Gold	(10.13%)
Fidelity Latin America	(6.99%)
10-year Return	
Vanguard Precious Metals and Mining	(6.11%)
Deutsche Gold and Precious Metals	(5.17%)
Fidelity Select Natural Gas	(4.72%)

Appendix E: Section 457 Deferred Compensation Plan

Fund Performance as of June 30, 2017

Highest-Performing 457 Funds (Excluding Money Market Funds)

<i>Investment Fund</i>	<i>Annualized Investment Return</i>
1-year Return	
Fidelity Select Technology	44.45%
Fidelity Select Electronics	41.15%
Fidelity Select Banking	39.82%
5-year Return	
Fidelity Select Electronics	23.15%
Fidelity Select Medical Equipment/Systems	21.84%
Fidelity Select Health Care	20.77%
10-year Return	
Fidelity Select Biotechnology	15.68%
Fidelity Select Medical Equipment/Systems	13.91%
Fidelity Select Software/Computer Services	13.82%

Lowest-Performing 457 Funds (Excluding Money Market Funds)

<i>Investment Fund</i>	<i>Annualized Investment Return</i>
1-year Return	
Fidelity Select Gold	(18.38%)
Vanguard Precious Metals and Mining	(7.84%)
Fidelity Spartan Long-Term Treasury Bond Index	(7.41%)
5-year Return	

Fidelity Select Gold	(10.13%)
Fidelity Latin America	(6.99%)
Vanguard Precious Metals and Mining	(6.96%)
10-year Return	
Vanguard Precious Metals and Mining	(6.11%)
Fidelity Select Natural Gas	(4.72%)
Fidelity Select Energy Service	(4.59%)