

ST. PAUL TEACHERS' RETIREMENT FUND ASSOCIATION
ACTUARIAL VALUATION
AS OF JULY 1, 2015

December 7, 2015

Ms. Jill E. Schurtz
Executive Director
St. Paul Teachers' Retirement Fund Association
1619 Dayton Avenue, Room 309
St. Paul, MN 55104-6206

Dear Ms. Schurtz:

We are pleased to present the report of the actuarial valuation of the St. Paul Teachers' Retirement Fund Association ("Fund") as of July 1, 2015. This report provides among other things, the required annual contribution rate of the Fund for the Plan Year commencing July 1, 2015 and ending on June 30, 2016.

The valuation was based upon information furnished by the Fund staff, concerning Retirement Fund benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. Their efforts in furnishing the materials needed are gratefully acknowledged. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the Fund.

The report has been prepared at the request of the Fund's Board of Trustees in accordance with Section 356.215 of the Minnesota Statutes as well as the Standards for Actuarial Work established by the State of Minnesota Legislative Commission on Pensions and Retirement. To the best of our knowledge, this report is complete and accurate, and has been prepared in accordance with generally accepted actuarial principles and practice. This report is intended for use by the Fund and those determined or approved by the Fund's Board of Trustees. This report may be provided to parties other than the Fund only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

This report should not be relied on for any purpose other than the purpose described in this report. Determinations of financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

Actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by Minnesota Statutes Section 356.215, the Legislative Commission on Pensions and Retirement (LCPR), and the Board of Trustees. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis of this report. The Fund is solely responsible for communicating to GRS any changes required thereto.

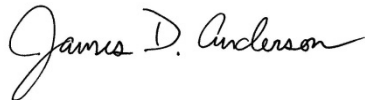
Bonita J. Wurst and James D. Anderson are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein. The signing actuaries are independent of the plan sponsor.

We will be pleased to review this report with you at your convenience.

Respectfully submitted,



Bonita J. Wurst, ASA, EA, MAAA



James D. Anderson, FSA, EA, MAAA

BJW/JDA:sc

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SUMMARY OF VALUATION RESULTS

This report sets forth the results of the actuarial valuation of the St. Paul Teachers' Retirement Fund Association ("Fund") as of July 1, 2015. The purposes of this valuation are:

1. To develop the Actuarially Determined Contribution (ADEC) rates.
2. To compare the ADEC rates with the current funding policy in place.
3. To review the funding status of the Fund.

The funding status, in basic terms, is a comparison of the Fund's liabilities to assets expressed as either an unfunded liability (i.e., the difference between the assets and liabilities) or as a ratio of assets to liabilities. This comparison can be measured in various ways. Fund liabilities are dependent on the actuarial assumptions and actuarial cost method. Fund assets can be measured at market value, book value, or some variation to smooth the fluctuations that invariably occur from year to year. The Actuarial Value of Assets is determined from market value with investment gains and losses smoothed over a five-year period.

Contribution Rates

The required contribution rate (as defined in Section 356 of Minnesota Statutes) increased from 21.94% of pay for the fiscal year ending June 30, 2015, to 22.26% of pay for the fiscal year ending June 30, 2016. The statutory contribution rate increased from 19.75% of payroll to 20.66% of payroll, but is currently not sufficient to cover the required contribution rate. This means the statutory contributions are not sufficient to fully amortize the unfunded actuarial accrued liability over the remaining statutory amortization period of 27 years. The contribution shortfall decreased from 2.19% of pay as of July 1, 2014 to 1.60% of pay, or \$4.5 million per year. The contribution increases that are being phased-in over the next two years will ultimately increase the statutory contribution rate (and decrease the contribution shortfall) by 1.00% of pay. On a market value of assets basis, statutory contributions are 1.28% of pay deficient. This deficiency falls to 0.28% of pay once scheduled contribution increases are phased-in.

Assets and Liabilities

On an actuarial value of assets basis, taking into account the potential implementation of cost-of-living adjustments (COLA) increases currently provided for in statute, the funding ratio increased from 61.81% at July 1, 2014, to 62.61% at July 1, 2015. Despite actual fiscal year 2015 investment returns not meeting the Fund's return target of 8%, investment gains from prior years that were not previously recognized resulted in an increase in the actuarial value of assets.

Total actuarial liabilities increased from \$1,533.6 million to \$1,596.8 million. This increase was primarily due to the change in the investment return rate assumption from the statutory "select and ultimate" approach (8% through 2017 and 8.5% thereafter) to a flat 8% assumption for all years. In addition, legislation over the past year changed the annual COLA payable when the plan achieves a 90% funding level (actuarial value of assets divided by actuarial accrued liability) from a COLA based on CPI up to 5% (CPI COLA) to a fixed 2.5% COLA. This revised COLA resulted in a decrease in liability.

One of the key assumptions in the valuation is the date COLAs are expected to be paid. In the prior valuation, a 2% COLA was expected to be paid in approximately 15 years and the CPI COLA was expected to be paid in 24 years. For the 2015 valuation, a 2% COLA is expected to be paid in 26 years and the 2.5% COLA is expected to be paid in 36 years. This is only an assumption; not a guarantee of benefits to be paid. Actual timing will depend upon actual experience.

SUMMARY OF VALUATION RESULTS

As shown in the table below, on a market value of assets basis, the funding ratio decreased from 68.17% at July 1, 2014, to 63.56% at July 1, 2015. This decrease was due to not meeting the 8% investment return target and the change in the investment return rate assumption to 8% for all years. The increase in liability was partially offset by a decrease due to the COLA changes described above.

Market Value of Assets Basis

A 5-year smoothed value of assets, used to determine both the funded status and required contribution level, reduces the volatility of the valuation results. As of July 1, 2015, the actuarial value of assets was 98.5% of market value. This means that if market value returns equal those assumed in the valuation, over the next few years there will be an upward bias in the actuarial value of assets.

The following table shows the July 1, 2015 valuation results, if they had been based on the market value instead of smoothed actuarial value:

Market Value Results as of July 1, 2015	
Actuarial Accrued Liability	\$1,596.8 million
Market Value of Assets	\$1,015.0 million
Unfunded Actuarial Accrued Liability (Market Value Basis)	\$ 581.8 million
Funded Ratio (Market Value Basis)	63.56%
Statutory Contribution Rate	20.66% of pay
Required Contribution Rate (Market Value Basis)	21.94% of pay
Deficiency (Market Value Basis)	1.28% of pay
Deficiency (Market Value Basis) based on Ultimate Contribution Rates	0.28% of pay

Changes Reflected in the Valuation

Assumption Changes

Investment Return Rate Assumption

The investment return rate assumption was changed from a statutory “select and ultimate” approach, which had rates graduating from 8.0% through June 30, 2017 and 8.5% thereafter, to a flat 8.0% for all years.

GRS reviewed the investment return rate assumption in the 2012 Experience Study and recommended an assumed rate of return in the range of 7.04% to 7.98% per year. The impact of using an assumed rate of return of 7.5% is shown in the 2012 valuation report.

COLA Assumption

Minnesota Statutes were revised in 2014 to establish a process for setting a COLA assumption for purposes of preparing actuarial valuations. Pursuant to this legislation, if the plan has not yet reached the statutory funding ratio threshold triggering payment of a 2.0% or 2.5% COLA, the actuary must perform a projection to determine whether the plan is expected to attain the funding ratio threshold in a timeframe that is actuarially meaningful, and if so, the expected change to a 2.0% or 2.5% COLA rate must be reflected in the liability calculations.

SUMMARY OF VALUATION RESULTS

We performed a projection of liabilities and assets, using the 2015 valuation results as a baseline and assuming future experience follows the valuation assumptions prescribed in Minnesota Statutes. In addition, the projection utilized the following methods and assumptions:

- Future investment returns of 8.00%
- Open group; stable active population (new member profile based on average new members hired in recent years)
- The COLA is assumed to be 1.0% per year until the funding ratio threshold required to pay a 2.0% COLA is reached and is assumed to be 2.0% per year until the threshold required to pay a 2.5% COLA is reached
- Current statutory contribution levels including scheduled increases

Based on these assumptions and methods, the projection indicates that this plan is expected to attain the funding ratio threshold to pay the 2.0% COLA in approximately 26 years, and the funding ratio threshold to pay the 2.5% COLA in approximately 36 years. The liabilities in this report are based on the assumption that the COLA will equal 1.0% through 2040, 2.0% for 2041 to 2050, and 2.5% for all years thereafter. This is only an assumption; not a guarantee of benefits to be paid.

Plan Changes

The ultimate COLA payable when a 90% funding ratio is attained changed from an inflation-based COLA with a cap of 5.0% to a fixed 2.5% COLA adjustment.

Effects of Changes (Actuarial Value of Assets Basis)

Results as of July 1, 2015 (\$000s)			
	Prior to Changes	Reflecting Plan Changes	Reflecting Plan and Assumption Changes
A. FUNDING RATIOS			
1. Accrued Liability Funding Ratio			
a. Current Assets	\$ 999,736	\$ 999,736	\$ 999,736
b. Actuarial Accrued Liability	1,580,674	1,570,974	1,596,770
c. Funding Ratio	63.25%	63.64%	62.61%
2. Projected Benefit Funding Ratio			
a. Current and Expected Future Assets	\$ 1,737,912	\$ 1,757,361	\$ 1,758,646
b. Current and Expected Future Benefit Obligations	1,804,759	1,789,386	1,833,521
c. Funding Ratio	96.30%	98.21%	95.92%
B. REQUIRED CONTRIBUTIONS - CHAPTER 356			
1. Normal Cost	8.90%	8.72%	9.13%
2. Supplemental Contribution Amortization	13.04%	12.82%	12.86%
3. Allowance for Administrative Expenses	0.27%	0.27%	0.27%
4. Total	22.21%	21.81%	22.26%

SUMMARY OF VALUATION RESULTS

Participants

Active membership decreased 5.1% during fiscal year 2015 from 3,959 to 3,756 (figures include members on leave of absence). Notwithstanding this decrease, the level of member contributions received during the year increased, even when taking into account the contribution rate increase during the period.

Total participants receiving benefits under the Fund, including disabled retirees, beneficiaries, and alternate payees increased 2.9% during fiscal year 2015 from 3,529 to 3,633. Total expenditures for these benefits increased from \$106.8 million to \$109.8 million during fiscal year 2015, or 2.8%.

Asset Valuation Method

The method used to develop the Fund's Actuarial Value of Assets, as set out in the LCPR Standards for Actuarial Work, is as follows: In years when Fund assets earn above the assumed rate (i.e., experience gain) or below the assumed rate (i.e., experience loss) the gain (or loss) will be recognized over five years. This approach both removes volatility of the Fund's level of required contributions and ensures the Fund's assets will track the market value of assets.

Experience Analysis

Overall, the Fund had an experience gain of \$26.1 million. In general, salary increases were smaller than predicted under the current valuation assumption and produced an actuarial gain of \$5.1 million. The largest component of the Fund's experience gain was the investment gain. The market value of Fund assets returned 2.65% (net of fees) for the year ended June 30, 2015, lower than the 8.00% assumption. However, only 20% of this asset loss was recognized in the actuarial value of assets. Investment gains from previous years were recognized this year and resulted in a gain of \$33.6 million on the actuarial value of assets. The rate of return on the actuarial value of assets for 2015 is 11.7%. The experience gain was offset by a \$25.8 million increase in the liability due to the change in the investment return rate assumption and a \$9.7 million decrease in the liability due to the change in the COLA (see pages 2 - 3).

The changes in unfunded actuarial accrued liabilities are shown in Table 10 in Section 3.

SUMMARY OF VALUATION RESULTS

	July 1, 2014	July 1, 2015
	Valuation	Valuation
A. CONTRIBUTIONS % OF PAYROLL (Table 11)		
1. Statutory Contributions - Chapter 354A	19.75%	20.66%
2. Required Contributions - Chapter 356	21.94%	22.26%
3. Sufficiency / (Deficiency)	(2.19%)	(1.60%)
 B. FUNDING RATIOS		
1. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$ 947,972	\$ 999,736
b. Actuarial Accrued Liability (Table 9)	1,533,603	1,596,770
c. Funding Ratio	61.81%	62.61%
2. Projected Benefit Funding Ratio (Table 8)		
a. Current and Expected Future Assets	\$ 1,683,810	\$ 1,758,646
b. Current and Expected Future Benefit Obligations	1,745,155	1,833,521
c. Funding Ratio	96.48%	95.92%
 C. PLAN PARTICIPANTS		
1. Active Members		
a. Number (Table 3)	3,876	3,597
b. Projected Annual Earnings	\$ 273,990	\$ 280,488
c. Average Annual Earnings (Projected dollars)	\$ 68,316	\$ 73,704
d. Average Age	44.7	44.4
e. Average Service	11.4	12.1
f. Additional Members on Leave of Absence	83	159
2. Others		
a. Service Retirements (Table 4)	3,156	3,277
b. Disability Retirements (Table 5)	34	33
c. Survivors (Table 6)	339	323
d. Deferred Retirements (Table 7)	1,829	1,892
e. Terminated Other Non-Vested (Table 7)	1,616	1,981
f. Total - Others	6,974	7,506
3. Grand Total (1.a + 1.f + 2.f)	10,933	11,262

SECTION 1

ASSET INFORMATION

ASSETS OF THE PLAN

The cost value of the plan assets decreased from \$884.3 million as of June 30, 2014 to \$867.0 million as of June 30, 2015. The market value of the plan assets decreased from \$1,045.4 million as of June 30, 2014 to \$1,015.0 million as of June 30, 2015. The expected return on assets using the valuation investment return rate assumption of 8.0 percent was \$81 million. The actual plan experience showed a return on assets of \$26 million. Twenty percent of the asset return below the expected \$81 million is recognized as an actuarial loss in the development of the actuarial value of assets. The recognized loss from the current year along with the portion of prior gains and losses recognized this year results in an overall gain of \$33.6 million on the actuarial value of assets.

The 2013 and 2014 asset gains as well as the 2012 and 2015 asset losses (amounts shown on the next page) will be recognized incrementally over the next four years. As of July 1, 2015, there are currently more unrecognized asset gains than losses, which means that if return assumptions are met, over the next few years the actuarial value of assets will grow more than 8.00% per year.

Table 1 shows the composition of assets as of June 30, 2015 and the development of the actuarial value of assets as of June 30, 2015. Table 2 details the development of asset values during fiscal year 2015.

TABLE 1
ACCOUNTING BALANCE SHEET
AS OF JUNE 30, 2015
(dollars in thousands)

	<u>Market Value</u>	<u>Cost Value</u>
A. ASSETS		
1. Cash, Equivalents, Short-Term Securities	\$ 30,344	\$ 30,344
2. Investments		
a. Fixed Income	202,771	194,746
b. Equity	613,018	494,561
c. Real Estate	126,897	108,271
d. Alternative	44,664	41,793
3. Other Assets	<u>2,884</u>	<u>2,884</u>
B. TOTAL ASSETS	<u>\$ 1,020,578</u>	<u>\$ 872,599</u>
C. AMOUNTS CURRENTLY PAYABLE	\$ 5,609	\$ 5,609
D. ASSETS AVAILABLE FOR BENEFITS		
1. Member Reserves	\$ 168,912	\$ 168,912
2. Employer Reserves	846,057	698,078
3. Total Assets Available for Benefits	<u>\$ 1,014,969</u>	<u>\$ 866,990</u>
E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	<u>\$ 1,020,578</u>	<u>\$ 872,599</u>
F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
1. Market Value of Assets Available for Benefits (D.3)	\$ 1,014,969	
2. Unrecognized Asset Returns		
a. June 30, 2015	\$ (55,629)	
b. June 30, 2014	95,762	
c. June 30, 2013	46,697	
d. June 29, 2012	(82,006)	
3. UAR Adjustment: $.80 * 2(a) + .60 * 2(b) + .40 * 2(c) + .20 * 2(d)$	<u>15,232</u>	
4. Actuarial Value of Assets: (F.1 - F.3)	<u>\$ 999,736</u>	

*** DERIVATION OF OTHER ASSETS**

Accounts Receivable

	<u>Market Value</u>
Employer Contribution	\$ 41
Employee Contribution	29
Service Purchases Receivable	6
Pensions Receivable	35
State Contributions	838
Real Estate Income Receivable	0
Commission Recapture Receivable	1
Interest Receivable	740
Dividend Receivable	243
Misc. Receivable	40
Security Purchases Receivable	0
Sale of Securities	<u>778</u>
Total Accounts Receivable	\$ 2,751
Fixed Assets	<u>133</u>
Total Other Assets	<u>\$ 2,884</u>

*Numbers may not add due to rounding.

TABLE 2
CHANGE(S) IN ASSETS AVAILABLE FOR BENEFITS
AS OF JUNE 30, 2015
(dollars in thousands)

	<u>Market Value</u>	<u>Cost Value</u>
A. ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$ 1,045,435	\$ 884,293
B. OPERATING REVENUES		
1. Member Contributions	\$ 17,567	\$ 17,567
2. Employer Contributions	25,505	25,505
3. Supplemental Contributions	10,665	10,665
4. Reemployed Annuitant Employer Contributions	541	541
5. Investment Income	14,656	15,735
6. Investment Expenses	(4,524)	(4,524)
7. Net Realized Gain / (Loss)	27,709	27,709
8. Other	0	0
9. Net Change in Unrealized Gain / (Loss)	<u>(12,084)</u>	<u>0</u>
10. Total Operating Revenue	\$ 80,035	\$ 93,198
C. OPERATING EXPENSES		
1. Service Retirements	\$ 97,277	\$ 97,277
2. Disability Benefits	750	750
3. Survivor Benefits	10,851	10,851
4. Refunds	875	875
5. Administrative Expenses	<u>748</u>	<u>748</u>
6. Total Operating Expenses	\$ 110,501	\$ 110,501
D. OTHER CHANGES IN RESERVES	\$ 0	\$ 0
E. ASSETS AVAILABLE AT END OF PERIOD	<u>\$ 1,014,969</u>	<u>\$ 866,990</u>
F. DETERMINATION OF CURRENT YEAR UNRECOGNIZED ASSET RETURN		
1. Average Balance		
(a) Assets available at BOY:		\$ 1,045,435
(b) Assets available at EOY:		1,014,969
(c) Average balance $\{[(a) + (b) - \text{Net Investment Income}] / 2\}$ {Net investment income: B.5+B.6+B.7+B.9}		\$ 1,017,324
2. Expected Return: $.080 * F.1$		81,386
3. Actual Return		25,757
4. Current Year Gross Asset Gain/(Loss): F.3 - F.2		\$ (55,629)

SECTION 2

TOTAL MEMBERSHIP DATA

TABLE 3
ACTIVE MEMBERS AS OF JUNE 30, 2015*

Age	Years of Service								ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
< 25	36	0	0	0	0	0	0	0	36
25-29	306	17	0	0	0	0	0	0	323
30-34	314	147	32	0	0	0	0	0	493
35-39	171	104	184	33	0	0	0	0	492
40-44	123	79	113	219	16	0	0	0	550
45-49	84	40	101	185	131	7	0	0	548
50-54	58	39	74	109	121	98	14	0	513
55-59	61	26	60	77	92	78	50	11	455
60-64	27	11	27	63	56	52	18	18	272
65+	19	7	12	10	7	4	8	7	74
ALL	1,199	470	603	696	423	239	90	36	3,756

AVERAGE ANNUAL EARNINGS

Age	Years of Service								ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
< 25	38,665	0	0	0	0	0	0	0	38,665
25-29	44,007	59,180	0	0	0	0	0	0	44,805
30-34	48,226	62,108	72,867	0	0	0	0	0	53,964
35-39	51,967	64,999	76,292	79,182	0	0	0	0	65,644
40-44	58,334	65,825	76,996	82,308	91,342	0	0	0	73,750
45-49	57,137	67,818	78,606	83,126	87,468	106,377	0	0	78,527
50-54	46,306	62,520	79,929	84,070	85,269	93,209	93,329	0	79,846
55-59	54,718	75,248	71,716	82,744	86,912	87,654	91,552	99,263	80,156
60-64	35,481	52,131	70,707	79,932	84,170	88,392	85,803	96,115	77,429
65+	17,182	73,347	70,510	77,479	85,998	86,253	100,673	100,804	66,470
ALL	48,515	64,448	76,256	82,417	86,404	90,617	91,489	97,989	69,694

Prior Fiscal Year Earnings (IN THOUSANDS) by Years of Service

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	ALL
ALL	58,170	30,290	45,982	57,362	36,549	21,658	8,234	3,528	261,771

*Including those on leave of absence, pay annualized for new hires.

TABLE 4
SERVICE RETIREMENTS AS OF JUNE 30, 2015

Age	Years Retired									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	1	0	0	0	0	0	1
45-49	1	0	0	1	0	0	0	0	0	2
50-54	4	0	0	0	0	0	0	0	0	4
55-59	96	0	0	0	0	0	0	0	0	96
60-64	372	137	1	0	0	0	0	0	0	510
65-69	330	371	248	2	0	0	0	0	0	951
70-74	59	179	284	163	3	0	0	0	0	688
75-79	5	30	120	237	75	1	0	0	0	468
80-84	4	3	18	97	146	41	0	0	0	309
85-89	0	1	3	9	50	71	23	1	0	158
90+	0	0	2	1	6	34	37	10	0	90
ALL	871	721	676	511	280	147	60	11	0	3,277

AVERAGE ANNUAL BENEFIT

Age	Years Retired									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	5,654	0	0	0	0	0	5,654
45-49	5,091	0	0	5,654	0	0	0	0	0	5,373
50-54	10,352	0	0	0	0	0	0	0	0	10,352
55-59	22,536	0	0	0	0	0	0	0	0	22,536
60-64	24,619	28,190	20,757	0	0	0	0	0	0	25,571
65-69	24,162	29,718	37,964	40,852	0	0	0	0	0	29,964
70-74	15,335	24,063	32,087	31,179	20,352	0	0	0	0	28,297
75-79	4,028	27,744	32,402	38,699	37,312	66,621	0	0	0	35,849
80-84	8,100	19,649	15,921	43,187	39,850	31,410	0	0	0	37,776
85-89	0	1,524	17,251	28,864	51,864	32,279	24,596	65,249	0	36,893
90+	0	0	27,326	60,385	52,625	28,206	28,662	33,101	0	30,903
ALL	23,305	27,860	33,772	36,900	41,380	31,328	27,103	36,023	0	30,603

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	20,299	20,088	22,830	18,856	11,586	4,605	1,626	396	0	100,286

TABLE 5
DISABILITY RETIREMENTS AS OF JUNE 30, 2015*

Age	Years Disabled									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	1	1	0	0	0	0	0	0	0	2
45-49	2	0	0	0	0	0	0	0	0	2
50-54	4	3	0	0	0	0	0	0	0	7
55-59	3	0	1	1	0	0	0	0	0	5
60-64	7	7	2	0	0	0	0	0	0	16
65-69	0	1	0	0	0	0	0	0	0	1
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	17	12	3	1	0	0	0	0	0	33

AVERAGE ANNUAL BENEFIT

Age	Years Disabled									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	3,421	7,797	0	0	0	0	0	0	0	5,609
45-49	24,312	0	0	0	0	0	0	0	0	24,312
50-54	20,367	9,038	0	0	0	0	0	0	0	15,512
55-59	15,383	0	24,426	5,581	0	0	0	0	0	15,231
60-64	23,790	19,940	18,563	0	0	0	0	0	0	21,452
65-69	0	1,835	0	0	0	0	0	0	0	1,835
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	20,364	14,694	20,517	5,581	0	0	0	0	0	17,868

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	346	176	62	6	0	0	0	0	0	590

* Disability benefits convert to normal retirement benefits at normal retirement age (generally between ages 65 and 66).

TABLE 6
SURVIVORS AS OF JUNE 30, 2015

Age	Years Since Member Death									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	6	0	2	0	0	0	0	0	0	8
45-49	1	1	3	0	0	0	0	0	0	5
50-54	2	0	0	0	0	0	0	0	0	2
55-59	3	4	1	0	0	0	0	0	0	8
60-64	3	1	3	1	2	0	0	0	1	11
65-69	5	4	9	5	4	2	1	0	0	30
70-74	3	2	9	11	9	4	1	0	0	39
75-79	10	2	6	17	22	9	3	2	0	71
80-84	8	0	1	4	23	19	5	1	0	61
85-89	5	0	0	0	6	24	20	4	2	61
90+	1	0	0	0	1	3	12	9	1	27
ALL	47	14	34	38	67	61	42	16	4	323

AVERAGE ANNUAL BENEFIT

Age	Years Since Member Death									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	10,800	0	9,246	0	0	0	0	0	0	10,411
45-49	1,902	531	807	0	0	0	0	0	0	971
50-54	44,649	0	0	0	0	0	0	0	0	44,649
55-59	24,791	6,916	687	0	0	0	0	0	0	12,840
60-64	22,827	19,089	8,622	13,872	45,156	0	0	0	3,350	20,088
65-69	43,301	39,469	17,911	36,914	28,950	24,449	20,176	0	0	30,168
70-74	38,670	15,234	28,172	34,229	32,085	20,495	24,113	0	0	30,036
75-79	42,911	33,528	23,003	32,744	40,800	30,611	28,311	24,071	0	35,169
80-84	38,630	0	39,885	33,975	45,693	35,520	20,943	27,621	0	38,410
85-89	39,854	0	0	0	44,329	35,613	32,633	20,612	41,848	35,061
90+	13,867	0	0	0	69,590	18,507	30,614	24,983	20,818	27,853
ALL	33,663	21,620	18,827	33,355	41,477	32,647	29,856	23,941	26,966	31,914

Total Annual Benefit (IN THOUSANDS) by Years Since Member Death

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	1,582	303	640	1,268	2,779	1,991	1,254	383	108	10,308

TABLE 7
RECONCILIATION OF MEMBERS
AS OF JUNE 30, 2015

	Active Participants	Leave of Absence	Vested Terminated	Other Non-Vested	Retired Participants	Disabled	Survivors and Beneficiaries	Alternate Payees¹	Total
A. Number as of June 30, 2014	3,876	83	1,829	1,616	3,121	33	339	36	10,933
B. Additions	405	144	170	365	175	3	19	7	1,288
C. Deletions									
1. Retirements	(117)	(3)	(49)	(1)					(170)
2. Disability	(1)		(2)						(3)
3. Died with Beneficiary	(1)				(15)			(2)	(18)
4. Died without Beneficiary			(1)		(43)		(32)		(76)
5. Terminated - Deferred	(138)	(32)							(170)
6. Terminated - Not Vested	(365)								(365)
7. Refunds	(42)		(28)	(120)					(190)
8. Rehired as Active	113	(33)	(26)	(54)					0
9. Leave of Absence	(142)		(2)						(144)
10. Repayment of Refund	9								9
11. Expired Benefits							(3)	(1)	(4)
12. Disability to Retirement						(4)			(4)
13. Write-offs				175					175
D. Data Adjustments			1						1
E. Total on June 30, 2015	3,597	159	1,892	1,981	3,238	32	323	40	11,262

¹ Includes alternate payees of both retired participants and disabled participants.

SECTION 3
FUNDING STATUS

TABLE 8
ACTUARIAL BALANCE SHEET
AS OF JULY 1, 2015
(dollars in thousands)

A. CURRENT ASSETS (TABLE 1; Line F.4)	\$ 999,736
B. EXPECTED FUTURE ASSETS	
1. Present Value of Expected Future Statutory Supplemental Contributions*	\$ 522,159
2. Present Value of Future Normal Costs	<u>236,751</u>
3. Total Expected Future Assets	<u>\$ 758,910</u>
C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS	<u>\$ 1,758,646</u>
D. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS	<u>\$ 1,833,521</u>
E. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (D - C)	\$ 74,875

* Includes the effect of scheduled employee and employer contribution increases of 0.50% each and supplemental state contributions.

TABLE 9
DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)
AND SUPPLEMENTAL CONTRIBUTION RATE
AS OF JULY 1, 2015
(dollars in thousands)

	<u>Actuarial Present Value of Projected Benefits</u>	<u>Actuarial Present Value of Future Normal Costs</u>	<u>Actuarial Accrued Liability</u>
A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
1. Active Members*			
a. Retirement Benefits	\$ 634,413	\$ 173,661	\$ 460,752
b. Disability Benefits	13,347	5,325	8,022
c. Surviving Spouse and Child Benefits	8,959	3,184	5,775
d. Vested Withdrawals	36,597	40,175	(3,578)
e. Refund Liability Due to Death or Withdrawal	3,165	14,406	(11,241)
f. Total	<u>696,481</u>	<u>236,751</u>	<u>459,730</u>
2. Deferred Retirements	\$ 78,303	0	\$ 78,303
3. Former Members without Vested Rights	4,913	0	4,913
4. Annuitants	<u>1,053,824</u>	<u>0</u>	<u>1,053,824</u>
5. Total	<u>\$ 1,833,521</u>	<u>\$ 236,751</u>	<u>\$ 1,596,770</u>
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. Actuarial Accrued Liability (A.5)			\$ 1,596,770
2. Current Assets (Table I; Line F.4)			<u>\$ 999,736</u>
3. Unfunded Actuarial Accrued Liability (B.1 - B.2)			<u>\$ 597,034</u>
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE			
1. Present Value of Future Payrolls Through the Amortization Date of June 30, 2042 [#]			\$ 4,641,140
2. Supplemental Contribution Rate (B.3 / C.1)			12.86%

*Includes members on leave of absence.

[#] Calculated using 8.0% annual investment return rate.

TABLE 10
CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)
AS OF JULY 1, 2015
(dollars in thousands)

A. UAAL AT BEGINNING OF YEAR	\$	585,631
B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING		
1. Normal Cost and Expenses	\$	24,072
2. Contributions		(53,737)
3. Interest*		51,596
4. Total	<u>\$</u>	<u>21,930</u>
C. EXPECTED UAAL AT END OF YEAR (A + B.4)	\$	607,561
D. INCREASE / (DECREASE) DUE TO ACTUARIAL LOSSES / (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED		
1. Age and Service Retirements	\$	31
2. Disability Retirements		(20)
3. Death-in-Service Benefits		20
4. Withdrawals		(1,560)
5. Salary Increases		(5,081)
6. Investment Income		(34,183)
7. Mortality of Annuitants		590
8. Other Items		13,580
9. Total	<u>\$</u>	<u>(26,623)</u>
E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTIONS (C + D.9)	\$	580,938
F. CHANGE IN UAAL DUE TO PLAN AMENDMENTS		(9,700)
G. CHANGE IN UAAL DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS		<u>25,796</u>
H. UAAL AT END OF YEAR (E + F + G)	<u>\$</u>	<u>597,034</u>

*Interest on assets determined at 8.00%; interest on liability determined at 8.40%.

TABLE 11
DETERMINATION OF CONTRIBUTION SUFFICIENCY
AS OF JULY 1, 2015
(dollars in thousands)

	<u>Percent-of- Payroll</u>	<u>Dollar Amount</u>
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	7.00%	\$ 19,648
2. Employer Contributions	9.85%	27,618
3. Supplemental Contribution		
a. 1996 Legislation	0.30%	838
b. 1997 Legislation	1.01%	2,827
c. 2014 Legislation	2.50%	7,000
4. Total	<u>20.66%</u>	<u>\$ 57,931</u>
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	6.82%	\$ 19,126
b. Disability Benefits	0.19%	538
c. Surviving Spouse and Child Benefits	0.12%	329
d. Vested Withdrawals	1.45%	4,071
e. Refund Liability Due to Death or Withdrawal	0.55%	1,532
f. Total	<u>9.13%</u>	<u>\$ 25,596</u>
2. Supplemental Contribution Amortization	12.86%	36,071
3. Allowance for Administrative Expenses	0.27%	757
4. Total	<u>22.26%</u>	<u>\$ 62,424</u>
C. CONTRIBUTION SUFFICIENCY / (DEFICIENCY) (A.4 - B.4)	(1.60%)	(4,493)
Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date:		\$ 280,488

SECTION 4

ACTUARIAL METHODS AND ASSUMPTIONS

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

I. ACTUARIAL COST METHOD

An Actuarial Cost Method is a set of techniques used by the actuary to develop contribution levels under a retirement plan. The Actuarial Cost Method used in this valuation for all purposes is the Entry Age Actuarial Cost Method. Under this Method, a Normal Cost is developed by amortizing the actuarial value of benefits expected to be received by each active participant (as a level percentage of pay) over the total working lifetime of that participant, from hire to termination. Years of Service for valuation purposes was provided by the Retirement Fund. Age as of the valuation date was calculated based on the dates of birth provided by the Retirement Fund. Entry Age for valuation purposes was calculated as the age on the valuation date minus the years of service on the valuation date.

To the extent that current assets and future Normal Costs do not support participants' expected future benefits, an Unfunded Actuarial Accrued liability ("UAAL") develops. The UAAL is amortized over the closed statutory amortization period ending June 30, 2042 using level percent-of-payroll assuming payroll increases of 4.00% per annum. The total contribution developed under this method is the sum of the Normal Cost and the payment toward the UAAL.

II. CURRENT ACTUARIAL ASSUMPTIONS

The assumptions were last updated for the July 1, 2013 valuation as a result of an experience study during the five-year period of July 1, 2006 to June 30, 2011, as well as a legislated change to the investment return assumption effective July 1, 2015.

A. Demographic Assumptions

Mortality:

1. Healthy Mortality*:

- a. Male: RP-2000 Combined Mortality Table for males projected with Scale AA to 2020 set back 1 year
- b. Female: RP-2000 Combined Mortality Table for females projected with Scale AA to 2020 set back 3 years

2. Disabled Mortality:

- i. Male: RP-2000 Disabled Life Mortality Table for males
- ii. Female: RP-2000 Disabled Life Mortality Table for females

* Mortality rates were adjusted to include margin for future mortality improvement as described in the table name above.

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

Deaths Expressed as the Number of Occurrences per 10,000:

<u>Age</u>	<u>Healthy Mortality</u>		<u>Disabled Mortality</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
20	2	1	226	75
21	2	1	226	75
22	2	1	226	75
23	3	1	226	75
24	3	1	226	75
25	3	1	226	75
26	3	1	226	75
27	3	1	226	75
28	3	2	226	75
29	4	2	226	75
30	4	2	226	75
31	4	2	226	75
32	5	2	226	75
33	5	2	226	75
34	6	3	226	75
35	6	3	226	75
36	7	3	226	75
37	8	4	226	75
38	8	4	226	75
39	9	4	226	75
40	9	4	226	75
41	9	5	226	75
42	10	5	226	75
43	10	5	226	75
44	10	6	226	75

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

Deaths Expressed as the Number of Occurrences per 10,000:

<u>Age</u>	<u>Healthy Mortality</u>		<u>Disabled Mortality</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
45	11	6	226	75
46	12	7	238	82
47	12	8	251	90
48	13	8	264	98
49	13	9	277	106
50	14	9	290	115
51	15	10	303	125
52	17	11	316	135
53	18	12	329	145
54	19	13	342	155
55	21	15	354	165
56	25	17	367	176
57	29	20	380	187
58	33	23	393	197
59	38	27	407	208
60	43	31	420	218
61	49	35	435	229
62	57	40	450	241
63	65	46	466	253
64	76	53	483	266
65	85	60	502	280
66	96	69	522	296
67	111	78	545	313
68	124	88	569	332
69	135	99	596	353

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

Rates of Disability:

Disability Expressed as the Number of Occurrences per 10,000:

Age	Disability	Age	Disability
20	2	45	5
21	2	46	5
22	2	47	5
23	2	48	5
24	2	49	5
25	2	50	10
26	2	51	10
27	2	52	10
28	2	53	10
29	2	54	10
30	3	55	20
31	3	56	20
32	3	57	20
33	3	58	20
34	3	59	20
35	3	60	40
36	3	61	40
37	3	62	40
38	3	63	40
39	3	64	40
40	3		
41	3		
42	3		
43	3		
44	3		

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

Rates of Termination:

Years of Service	Number of Terminations per 1,000 Active Members	
	Male	Female
0	400	400
1	180	180
2	140	140
3	100	100
4	60	67
5	50	59
6	45	51
7	41	43
8	37	35
9	33	31
10	29	27
11	25	23
12	20	19
13	20	15
14	20	13
15 & Over	20	13

Rates of Retirement:

Retirements Expressed as the Number of Occurrences per 10,000:

Age	Basic Members Eligible for Rule of 90 Provision	Basic Members Not Eligible for Rule of 90 Provision	Male Coordinated Members Eligible for Rule of 90 Provision	Female Coordinated Members Eligible for Rule of 90	Male Coordinated Members Not Eligible for Rule of 90 Provision	Female Coordinated Members Not Eligible for Rule of 90 Provision
55	5,000	800	3,500	3,500	700	500
56	5,000	1,300	3,500	3,500	700	500
57	4,000	1,300	3,500	3,500	700	500
58	4,000	1,800	3,500	3,500	700	500
59	3,500	1,800	3,500	3,500	700	500
60	3,500	2,000	3,500	3,500	1,100	800
61	3,500	2,000	3,500	3,500	1,500	1,100
62	3,500	4,000	3,500	3,500	1,900	1,400
63	3,500	4,000	3,500	3,500	2,300	1,900
64	4,000	4,000	3,500	4,000	2,700	2,400
65	5,000	5,000	3,500	5,000	3,100	3,500
66	3,000	5,000	3,500	5,000	3,500	3,500
67	3,000	5,000	3,500	5,000	3,500	3,500
68	3,000	5,000	3,500	5,000	3,500	3,500
69	3,000	5,000	3,500	5,000	3,500	3,500
70 & Over	10,000	10,000	10,000	10,000	10,000	10,000

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

B. Economic Assumptions

Investment Return Rate: 8.00%

Cost of Living Increases: 1.00% per year through 2040; 2.00% beginning 2041; 2.50% beginning 2051.

Wage Inflation: 4.00% per year

Future Salary Increases: In addition to the age-based rates shown below, during the first 15 years of employment, a service-based component of 0.20% x (15-T), where T is completed years of service, is included in the salary increase used.

Annual Salary Increases

Age	Ultimate Rate of Annual Salary Increases	Age	Ultimate Rate of Annual Salary Increases
<22	5.90%	45	4.75%
23	5.85	46	4.70
24	5.80	47	4.65
		48	4.60
25	5.75	49	4.55
26	5.70		
27	5.65	50	4.50
28	5.60	51	4.45
29	5.55	52	4.40
		53	4.35
30	5.50	54	4.30
31	5.45		
32	5.40	55	4.25
33	5.35	56	4.20
34	5.30	57	4.15
		58	4.10
35	5.25	59	4.05
36	5.20		
37	5.15	60 & Over	4.00
38	5.10		
39	5.05		
40	5.00		
41	4.95		
42	4.90		
43	4.85		
44	4.80		

Asset Value: The actuarial value of assets is smoothed by using a five-year average market value.

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

C. Other Assumptions

Marital Status:	It is assumed that 75% of male members and 60% of female members have an eligible spouse. The male spouse is assumed to be two years older than the female spouse. Married members are assumed to have two dependent children.
Deferred Benefit Commencement:	Basic Plan members who terminate vested are assumed to commence benefits at age 61. Coordinated Plan members are assumed to commence benefits at age 62. If the member is already past the assumed deferral age, the member is assumed to commence benefits one year from the valuation date.
Administrative Expenses:	Prior year administrative expenses (excluding investment expenses) are expressed as a percentage-of-payroll and then applied to current projected payroll.
Allowance for Combined Service Annuity:	7.00% load on liabilities for active members hired before July 1, 1989; 2.00% load on liabilities for active members hired after June 30, 1989; and 30.00% load on liabilities for former members.
Missing Salary and Salary Minimums:	Active members with reported salaries of \$100 or less were assumed to have the average non-zero active salary. Active members with salaries less than those reported at the prior valuation date are valued using their prior salary amount. Active members who have been hired within one year of the valuation date have had their pay annualized by dividing by months of service credited, not to exceed the average non-zero active salary. For members on leave of absence at valuation date who were not on leave at the prior valuation date, the prior year's valuation pay was used.
Missing Data for Deferred Vested Members:	Deferred vested members without salary information were assumed to have a final average salary of \$40,000.
Decrement Timing:	Retirement and Termination: end of valuation year – consistent with retirements and terminations occurring at the end of the school year. Death and Disability: middle of valuation year.

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2015

Valuation of Future Post-Retirement Benefit Increases:	If the plan has reached the funding ratio threshold required to pay a different benefit increase, Minnesota Statutes require the benefit increase rate to be reflected in the liability calculations. If the plan has not yet reached the funding ratio threshold required to pay a benefit increase, Minnesota Statutes require a projection to be performed to determine the expected attainment of the funding ratio thresholds, and the expected payment of benefit increases must be reflected in the liability calculations.
Supplemental Contributions:	1996 legislation provides for a variable amortization aid contribution paid annually on July 15. We assumed the annual amortization aid contribution will equal \$838,000, which was the actual contribution for the most recent fiscal year. Additionally, according to 1997 legislation, annual supplemental contributions currently equal to \$2,827,000 are scheduled to be paid on October 1. According to 2014 legislation, the State of Minnesota will make annual additional supplemental contributions of \$7,000,000 on October 1. The contributions described herein will continue until the plan is 100% funded or until June 30, 2042, whichever occurs earlier.
Projected Annual Payroll Calculation:	The census data as of July 1, 2015 reflects retirements and terminations occurring during the months of May and June; however, it does not necessarily reflect the replacements hired to fill their positions who may have hire dates in August and September. We assumed that May and June retirements are replaced by members coming in at the B.A. Step 1 salary level of \$43,021; and the Projected Annual Payroll for the fiscal year ending June 30, 2015 includes this replacement salary amount.

SECTION 5
BASIC PLAN

TABLE 3A
BASIC ACTIVE MEMBERS AS OF JUNE 30, 2015

Age	Years of Service								ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
<25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	1	1
65+	0	0	0	0	0	0	1	3	4
ALL	0	0	0	0	0	0	1	4	5

AVERAGE ANNUAL EARNINGS

Age	Years of Service								ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
<25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	87,677	87,677
65+	0	0	0	0	0	0	87,273	119,251	111,257
ALL	0	0	0	0	0	0	87,273	111,358	106,541

Prior Fiscal Year Earnings (IN THOUSANDS) by Years of Service

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	ALL
ALL	0	0	0	0	0	0	87	445	533

TABLE 4A
BASIC SERVICE RETIREMENTS AS OF JUNE 30, 2015

Age	Years Retired									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	1	0	0	0	0	0	1
45-49	1	0	0	1	0	0	0	0	0	2
50-54	2	0	0	0	0	0	0	0	0	2
55-59	6	0	0	0	0	0	0	0	0	6
60-64	48	49	1	0	0	0	0	0	0	98
65-69	46	161	194	2	0	0	0	0	0	403
70-74	7	44	186	134	2	0	0	0	0	373
75-79	1	4	55	188	66	1	0	0	0	315
80-84	0	0	2	68	130	41	0	0	0	241
85-89	0	0	0	6	42	68	23	1	0	140
90+	0	0	0	0	6	28	36	10	0	80
ALL	111	258	438	400	246	138	59	11	0	1,661

AVERAGE ANNUAL BENEFIT

Age	Years Retired									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	5,654	0	0	0	0	0	5,654
45-49	5,091	0	0	5,654	0	0	0	0	0	5,373
50-54	5,091	0	0	0	0	0	0	0	0	5,091
55-59	18,445	0	0	0	0	0	0	0	0	18,445
60-64	40,301	43,883	20,757	0	0	0	0	0	0	41,892
65-69	50,721	45,034	43,636	40,852	0	0	0	0	0	44,989
70-74	23,275	44,312	40,802	35,661	20,315	0	0	0	0	38,930
75-79	5,366	85,561	50,617	45,025	40,839	66,621	0	0	0	45,582
80-84	0	0	54,428	55,264	43,023	31,410	0	0	0	44,596
85-89	0	0	0	40,691	57,436	33,520	24,596	65,249	0	39,763
90+	0	0	0	0	52,625	32,034	29,351	33,101	0	32,504
ALL	41,098	45,320	43,306	43,346	44,947	32,832	27,497	36,023	0	42,244

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	4,562	11,693	18,968	17,338	11,057	4,531	1,622	396	0	70,167

TABLE 5A
BASIC DISABILITY RETIREMENTS AS OF JUNE 30, 2015*

Age	Years Disabled									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0
60-64	0	2	0	0	0	0	0	0	0	2
65-69	0	1	0	0	0	0	0	0	0	1
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	0	3	0	0	0	0	0	0	0	3

AVERAGE ANNUAL BENEFIT

Age	Years Disabled									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0
60-64	0	51,530	0	0	0	0	0	0	0	51,530
65-69	0	1,835	0	0	0	0	0	0	0	1,835
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	0	34,965	0	0	0	0	0	0	0	34,965

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	0	105	0	0	0	0	0	0	0	105

* Disability benefits convert to normal retirement benefits at normal retirement age (generally between ages 65 and 66).

TABLE 6A
BASIC SURVIVORS AS OF JUNE 30, 2015

Age	Years Since Member Death									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0
50-54	2	0	0	0	0	0	0	0	0	2
55-59	1	0	0	0	0	0	0	0	0	1
60-64	0	0	3	1	2	0	0	0	1	7
65-69	2	2	5	5	3	2	1	0	0	20
70-74	2	0	4	10	8	4	1	0	0	29
75-79	8	2	1	15	22	9	3	2	0	62
80-84	7	0	1	3	22	19	5	1	0	58
85-89	5	0	0	0	6	24	20	4	2	61
90+	1	0	0	0	1	3	12	9	1	27
ALL	28	4	14	34	64	61	42	16	4	267

AVERAGE ANNUAL BENEFIT

Age	Years Since Member Death									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	0	0	0	0	0	0	
45-49	0	0	0	0	0	0	0	0	0	
50-54	44,649	0	0	0	0	0	0	0	0	44,649
55-59	59,581	0	0	0	0	0	0	0	0	59,581
60-64	0	0	8,622	13,872	45,156	0	0	0	3,350	19,057
65-69	52,365	64,782	20,010	36,914	34,107	24,449	20,176	0	0	34,515
70-74	55,990	0	41,625	37,247	33,980	20,495	24,113	0	0	35,479
75-79	45,753	33,528	52,409	33,678	40,800	30,611	28,311	24,071	0	37,045
80-84	40,634	0	39,885	40,470	46,573	35,520	20,943	27,621	0	39,268
85-89	39,854	0	0	0	44,329	35,613	32,633	20,612	41,848	35,061
90+	13,867	0	0	0	69,590	18,507	30,614	24,983	20,818	27,853
ALL	43,899	49,155	27,480	35,220	42,535	32,647	29,856	23,941	26,966	35,455

Total Annual Benefit (IN THOUSANDS) by Years Since Member Death

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	1,229	197	385	1,197	2,722	1,991	1,254	383	108	9,466

TABLE 11A
BASIC DETERMINATION OF CONTRIBUTION SUFFICIENCY
AS OF JULY 1, 2015
(dollars in thousands)

	Percent-of- Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	9.50%	\$ 53
2. Employer Contributions	13.14%	73
3. Supplemental Contribution		
a. 1996 Legislation	0.30%	2
b. 1997 Legislation	1.01%	6
c. 2014 Legislation	2.50%	14
4. Total	26.45%	\$ 148
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	9.47%	\$ 52
b. Disability Benefits	0.47%	3
c. Surviving Spouse and Child Benefits	0.10%	1
d. Deferred Retirements	1.80%	10
e. Refund Liability Due to Death or Withdrawal	1.23%	7
f. Total	13.07%	\$ 73
Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date:		\$ 554

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2015

STATUTORY CONTRIBUTIONS

Statutory contribution rates for members and their employers are shown as a percent of pay below:

<u>Contribution After June 30,</u>	<u>Member</u>	<u>Employer Regular</u>	<u>Employer Additional</u>
2014	9.00%	9.00%	3.64%
2015	9.50%	9.50%	3.64%
2016	10.00%	9.75%	3.64%
2017	10.00%	10.00%	3.64%

PARTICIPANTS

Professional Educators first employed prior to July 1, 1978 by schools in the City of St. Paul or St. Paul College whose position requires a license from the Minnesota Department of Education, who are not covered under the Social Security Act.

ACCREDITED SERVICE

Service which has been verified and accredited by the Association for the purpose of determining contributions and benefits (may include service earned while working outside of St. Paul Public Schools, previous St. Paul service, military service and governmental service).

ALLOWABLE ST. PAUL SERVICE

Service earned as a licensed educator in the St. Paul Public Schools, in the St. Paul College, or as an employee of the Association. Also includes service credited after receipt of payment as required, for licensed educators on leave.

SALARY

Total compensation earned during a school year (July 1 to June 30) excluding lump sum payments for unused leave at termination and employer-paid insurance coverage.

AVERAGE SALARY

Average of the highest five years of salary during the last 10 years of St. Paul service while making contributions or while disabled.

NORMAL RETIREMENT BENEFIT

Eligibility

Attainment of age 65 and 5 years of Accredited Service.

Benefit

2.50% of Average Salary for each year of Accredited Service.

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2015

EARLY RETIREMENT BENEFIT

Eligibility

Attainment of age 55 and 5 years of Accredited Service.

Benefit

The greater of the following benefits:

- 2.00 percent of Average Salary per year of Accredited Service, subject to a maximum of 40 years with a 0.25% reduction for each month the member is under age 65. If the member has 25 years of Accredited Service, the reduction is taken from age 60, therefore no reduction is required if the member is age 60 or older. No reduction is taken if age plus years of Accredited Service totals at least 90.
- 2.50 percent of Average Salary per year of Accredited Service, subject to a maximum of 40 years, reduced for each month the member is under age 65 using linear interpolation of the table listed below.

<u>Age at Retirement</u>	<u>Under Age 62 or less than 30 years of service</u>	<u>Age 62 or older with 30 years of service</u>
55	0.5376	
56	0.5745	
57	0.6092	
58	0.6419	
59	0.6726	
60	0.7354	
61	0.7947	
62	0.8507	0.8831
63	0.9035	0.9246
64	0.9533	0.9635
65	1.0000	1.0000

DISABILITY RETIREMENT BENEFIT

Eligibility

Total and permanent disablement before attaining age 65 and 5 years of Accredited Service.

Benefit

If the member is under age 65, 75 percent of the member's annual contract salary less any Social Security and Workers' Compensation benefits payable until age 65. At age 65, a normal retirement benefit is calculated using the projected service and average salary as if the member had continued to teach in their position held at the time of disability. Members age 65 or older at time of disability receive a normal retirement benefit.

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2015

DEFERRED RETIREMENT BENEFIT

Eligibility

5 years of Accredited Service.

Benefit

Benefit computed under law in effect at termination and payable as a normal or early retirement benefit. For members hired on or before June 30, 2006, the benefit is augmented at 3.00 percent compounded annually from the 1st of the month following termination until the January 1st after turning age 55 and then augmented at 5.00 percent compounded annually from that date to July 1, 2012. For members hired after June 30, 2006, the benefit is augmented at 2.50 percent compounded annually from the 1st of the month following termination to July 1, 2012. Augmentation for all members, regardless of hire date, changed to 2.00 percent as of July 1, 2012 for the portion of benefit deferral which occurs after June 30, 2012.

ACTIVE SURVIVOR BENEFIT (Family Benefit)

Eligibility

Active member with three years of Accredited Service.

Benefit

- Children's Benefit: 25 percent of the maximum Bachelor of Arts salary for the year in which the member died for each eligible child up to a maximum of two. Benefits are paid until the child attains age 18, or 22 for full-time students.
- Spousal Benefit: 15 percent of the maximum Bachelor of Arts salary for an eligible spouse who has legal custody of an eligible child. Spousal benefits cease when the spouse remarries, dies, or elects the regular survivor benefit. Electing the regular survivor benefit does not disqualify the child from receiving the family benefit.

SURVIVOR BENEFIT (Active or Retired Member)

Eligibility

Active member or retired member with five years of Accredited Service. A surviving spouse must have been married to the member for three years at the earlier of his death or retirement.

Benefit

Retirement benefit earned at the time of death or retirement, whichever is earlier, reduced by the use of one hundred percent joint survivorship tables, based on the ages of the member and survivor at the time of retirement.

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2015

REFUND OF CONTRIBUTIONS

Eligibility

Termination or death where no annuity is payable, or prior to age 55, if a refund of contributions is chosen in lieu of an annuity.

Benefit

Member contributions with 6.00 percent interest accrued before July 1, 2011 with 4.00 percent accrual thereafter.

REEMPLOYED ANNUITANTS

The School District shall make the regular employer contribution and additional employer contribution, plus a supplemental contribution equal to 2.5% of salary, on behalf of any retired member who is reemployed by the School District. Reemployed annuitants do not accrue additional benefits.

NORMAL FORM OF RETIREMENT BENEFITS

Unreduced annuity payments made until the death of the member, with a 100 percent Joint & Survivor adjusted pension payable to the surviving beneficiary.

BENEFIT INCREASES

If the Accrued Liability Funding Ratio, based on Actuarial Value of Assets, as determined by the two consecutive and most recent actuarial valuations are:

Less than 80 percent for two consecutive years, the COLA: 1.00 percent

Between 80 percent and 90 percent for two consecutive years, the COLA: 2.00 percent

If at least 90 percent for two consecutive years, the COLA: 2.50 percent

SECTION 6
COORDINATED PLAN

TABLE 3B
COORDINATED ACTIVE MEMBERS AS OF JUNE 30, 2015*

Age	Years of Service								ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
<25	36	0	0	0	0	0	0	0	36
25-29	306	17	0	0	0	0	0	0	323
30-34	314	147	32	0	0	0	0	0	493
35-39	171	104	184	33	0	0	0	0	492
40-44	123	79	113	219	16	0	0	0	550
45-49	84	40	101	185	131	7	0	0	548
50-54	58	39	74	109	121	98	14	0	513
55-59	61	26	60	77	92	78	50	11	455
60-64	27	11	27	63	56	52	18	17	271
65+	19	7	12	10	7	4	7	4	70
ALL	1,199	470	603	696	423	239	89	32	3,751

AVERAGE ANNUAL EARNINGS

Age	Years of Service								ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
<25	38,665	0	0	0	0	0	0	0	38,665
25-29	44,007	59,180	0	0	0	0	0	0	44,805
30-34	48,226	62,108	72,867	0	0	0	0	0	53,964
35-39	51,967	64,999	76,292	79,182	0	0	0	0	65,644
40-44	58,334	65,825	76,996	82,308	91,342	0	0	0	73,750
45-49	57,137	67,818	78,606	83,126	87,468	106,377	0	0	78,527
50-54	46,306	62,520	79,929	84,070	85,269	93,209	93,329	0	79,846
55-59	54,718	75,248	71,716	82,744	86,912	87,654	91,552	99,263	80,156
60-64	35,481	52,131	70,707	79,932	84,170	88,392	85,803	96,611	77,391
65+	17,182	73,347	70,510	77,479	85,998	86,253	102,587	86,969	63,911
ALL	48,515	64,448	76,256	82,417	86,404	90,617	91,537	96,317	69,645

Prior Fiscal Year Earnings (In THOUSANDS) by Years of Service

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	ALL
ALL	58,170	30,290	45,982	57,362	36,549	21,658	8,147	3,080	261,238

*Including those on leave of absence, pay annualized for new hires.

TABLE 4B
COORDINATED SERVICE RETIREMENTS AS OF JUNE 30, 2015

Age	Years Retired									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0
50-54	2	0	0	0	0	0	0	0	0	2
55-59	90	0	0	0	0	0	0	0	0	90
60-64	324	88	0	0	0	0	0	0	0	412
65-69	284	210	54	0	0	0	0	0	0	548
70-74	52	135	98	29	1	0	0	0	0	315
75-79	4	26	65	49	9	0	0	0	0	153
80-84	4	3	16	29	16	0	0	0	0	68
85-89	0	1	3	3	8	3	0	0	0	18
90+	0	0	2	1	0	6	1	0	0	10
ALL	760	463	238	111	34	9	1	0	0	1,616

AVERAGE ANNUAL BENEFIT

Age	Years Retired									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0
50-54	15,614	0	0	0	0	0	0	0	0	15,614
55-59	22,809	0	0	0	0	0	0	0	0	22,809
60-64	22,295	19,453	0	0	0	0	0	0	0	21,688
65-69	19,860	17,975	17,589	0	0	0	0	0	0	18,914
70-74	14,266	17,463	15,548	10,468	20,428	0	0	0	0	15,705
75-79	3,694	18,849	16,989	14,426	11,444	0	0	0	0	15,810
80-84	8,100	19,649	11,107	14,871	14,069	0	0	0	0	13,609
85-89	0	1,524	17,251	5,211	22,610	4,152	0	0	0	14,569
90+	0	0	27,326	60,385	0	10,340	3,868	0	0	18,095
ALL	20,707	18,131	16,226	13,673	15,571	8,277	3,868	0	0	18,638

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	15,737	8,395	3,862	1,518	529	74	4	0	0	30,119

TABLE 5B
COORDINATED DISABILITY RETIREMENTS AS OF JUNE 30, 2015*

Age	Years Disabled									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	1	1	0	0	0	0	0	0	0	2
45-49	2	0	0	0	0	0	0	0	0	2
50-54	4	3	0	0	0	0	0	0	0	7
55-59	3	0	1	1	0	0	0	0	0	5
60-64	7	5	2	0	0	0	0	0	0	14
65-69	0	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	17	9	3	1	0	0	0	0	0	30

AVERAGE ANNUAL BENEFIT

Age	Years Disabled									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	3,421	7,797	0	0	0	0	0	0	0	5,609
45-49	24,312	0	0	0	0	0	0	0	0	24,312
50-54	20,367	9,038	0	0	0	0	0	0	0	15,512
55-59	15,383	0	24,426	5,581	0	0	0	0	0	15,231
60-64	23,790	7,304	18,563	0	0	0	0	0	0	17,156
65-69	0	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	20,364	7,937	20,517	5,581	0	0	0	0	0	16,159

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	346	71	62	6	0	0	0	0	0	485

* Disability benefits convert to normal retirement benefits at normal retirement age (generally between ages 65 and 66).

TABLE 6B
COORDINATED SURVIVORS AS OF JUNE 30, 2015

Age	Years Since Member Death									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	6	0	2	0	0	0	0	0	0	8
45-49	1	1	3	0	0	0	0	0	0	5
50-54	0	0	0	0	0	0	0	0	0	0
55-59	2	4	1	0	0	0	0	0	0	7
60-64	3	1	0	0	0	0	0	0	0	4
65-69	3	2	4	0	1	0	0	0	0	10
70-74	1	2	5	1	1	0	0	0	0	10
75-79	2	0	5	2	0	0	0	0	0	9
80-84	1	0	0	1	1	0	0	0	0	3
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	19	10	20	4	3	0	0	0	0	56

AVERAGE ANNUAL BENEFIT

Age	Years Since Member Death									ALL
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
<45	10,800	0	9,246	0	0	0	0	0	0	10,411
45-49	1,902	531	807	0	0	0	0	0	0	971
50-54	0	0	0	0	0	0	0	0	0	0
55-59	7,395	6,916	687	0	0	0	0	0	0	6,163
60-64	22,827	19,089	0	0	0	0	0	0	0	21,892
65-69	37,258	14,157	15,287	0	13,481	0	0	0	0	21,472
70-74	4,029	15,234	17,409	4,043	16,919	0	0	0	0	14,251
75-79	31,543	0	17,122	25,742	0	0	0	0	0	22,242
80-84	24,600	0	0	14,491	26,346	0	0	0	0	21,812
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	18,579	10,607	12,770	17,504	18,915	0	0	0	0	15,030

Total Annual Benefit (IN THOUSANDS) by Years Since Member Death

	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
ALL	353	106	255	71	57	0	0	0	0	842

TABLE 11B
COORDINATED DETERMINATION OF CONTRIBUTION SUFFICIENCY
AS OF JULY 1, 2015
(dollars in thousands)

	Percent-of- Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	7.00%	\$ 19,595
2. Employer Contributions	9.84%	27,545
3. Supplemental Contribution		
a. 1996 Legislation	0.30%	836
b. 1997 Legislation	1.01%	2,821
c. 2014 Legislation	2.50%	6,986
4. Total	20.65%	\$ 57,783
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	6.81%	\$ 19,074
b. Disability Benefits	0.19%	535
c. Surviving Spouse and Child Benefits	0.12%	328
d. Deferred Retirements	1.45%	4,061
e. Refund Liability Due to Death or Withdrawal	0.54%	1,525
e. Total	9.11%	\$ 25,523
Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date:		\$ 279,934

SUMMARY OF BENEFIT PROVISIONS FOR COORDINATED MEMBERS AS OF JULY 1, 2015

STATUTORY CONTRIBUTIONS

Statutory contribution rates for members and their employers are shown as a percent-of-pay below.

<u>Contribution After June 30,</u>	<u>Member</u>	<u>Employer Regular</u>	<u>Employer Additional</u>
2014	6.50%	5.50%	3.84%
2015	7.00%	6.00%	3.84%
2016	7.50%	6.25%	3.84%
2017	7.50%	6.50%	3.84%

PARTICIPANTS

Professional educators in the public schools of the City of St. Paul, excluding charter schools, whose position requires a license from the Minnesota Department of Education, and who are covered under the Social Security Act and make contributions to the St. Paul Teachers' Retirement Fund Association, are covered under the Coordinated Plan.

ALLOWABLE SERVICE

Service earned as a licensed educator in the St. Paul Public Schools, in the St. Paul College, or in certain charter schools, or as an employee of the Association. Also includes service credited after receipt of payment as required, for licensed educators on leave. Service is granted on a proportional basis for part-time teachers.

SALARY

Total compensation excluding lump sum payments for unused leave at termination and employer-paid insurance coverage.

AVERAGE SALARY

Average of the highest five successive years of salary while making contributions. In cases where the Allowable Service is less than five years, Average Salary is based on the Allowable Service years.

NORMAL RETIREMENT BENEFIT

Eligibility

Three years of Allowable Service. The eligibility age is 65 for those hired before July 1, 1989 and the earlier of eligibility for full Social Security retirement benefits to a maximum of age 66 for those hired on or after July 1, 1989. A Proportionate Retirement Annuity is available at Normal Retirement Age with one year of Allowable Service.

Benefit

1.70 percent of Average Salary for each year of Allowable Service rendered before July 1, 2015 and 1.90 percent of Average Salary for each year of Allowable Service rendered after June 30, 2015.

SUMMARY OF BENEFIT PROVISIONS FOR COORDINATED MEMBERS AS OF JULY 1, 2015

EARLY RETIREMENT BENEFIT

Eligibility

Attainment of age 55 and 3 years of Allowable Service.

Benefit

Members hired before July 1, 1989 are eligible for the greater of the following benefits. Members hired after July 1, 1989 are eligible for the benefits shown in item (b):

- a) For the first ten years of Allowable Service, 1.20 percent of Average Salary for each year of Allowable Service rendered prior to July 1, 2015, plus 1.40 percent of Average Salary for each year of Allowable Service rendered after June 30, 2015. Additionally, for each subsequent year of Allowable Service in excess of ten years, 1.70 percent of Average Salary for each year rendered prior to July 1, 2015, plus 1.90 percent of Average Salary for each year rendered after June 30, 2015. There is a reduction of 0.25 percent for each month the member is under age 65, or under age 62 with 30 years of Allowable Service. No reduction applies if the age plus years of service totals at least 90.
- b) 1.70 percent of Average Salary per year of Allowable Service rendered before July 1, 2015 and 1.90 percent of Average Salary for each year of service rendered after June 30, 2015 reduced for each month the member is under the Normal Retirement Age using linear interpolation of the factors in the table listed below.

Normal retirement age:	Under Age 62 or less than 30 years of service		Age 62 or older with 30 years of service	
	65	66	65	66
Age at Retirement				
55	0.5376	0.4592		
56	0.5745	0.4992		
57	0.6092	0.5370		
58	0.6419	0.5726		
59	0.6726	0.6062		
60	0.7354	0.6726		
61	0.7947	0.7354		
62	0.8507	0.7947	0.8831	0.8389
63	0.9035	0.8507	0.9246	0.8831
64	0.9533	0.9035	0.9635	0.9246
65	1.0000	0.9533	1.0000	0.9635
66		1.0000		1.0000

SUMMARY OF BENEFIT PROVISIONS FOR COORDINATED MEMBERS AS OF JULY 1, 2015

DISABILITY RETIREMENT BENEFIT

Eligibility

Total and permanent disablement and three years of Allowable Service with service earned within the current fiscal year and at least two years of Allowable Service since the last interruption in service.

Benefit

Calculated as a normal retirement benefit payable for life without reduction for early commencement. At normal retirement age, the benefit converts from a disability benefit to a retirement benefit. The disability benefit is reduced by any Workers' Compensation benefits payable.

DEFERRED RETIREMENT BENEFIT

Eligibility

Three years of Allowable Service.

Benefit

Benefit computed under law in effect at termination and payable as a normal or early retirement benefit. For members hired on or before June 30, 2006, the benefit is augmented at 3.00 percent compounded annually from the 1st of the month following termination until the January 1st after turning age 55 and then augmented at 5.00 percent compounded annually from that date to July 1, 2012. For members hired after June 30, 2006, the benefit is augmented at 2.50 percent compounded annually from the 1st of the month following termination to July 1, 2012. Augmentation for all members, regardless of hire date, changed to 2.00 percent as of July 1, 2012 for the portion of benefit deferral which occurs after June 30, 2012.

SURVIVOR BENEFIT (Active Members)

Eligibility

Active member with three years of Allowable service. A surviving spouse is defined as the person legally married to the member at the time of death. If none, a dependent child who is the legal child of the member, who is less than 20 years of age and unmarried.

Benefit

Retirement benefit earned at the time of death with choices for either a reduced for 100 percent joint survivorship, or 5-, 10-, 15-, or 20-year term certain. The benefit is available immediately upon application. Actuarial reductions assuming 2.5% augmentation for the calculation of the survivorship portion of a 100 percent joint and survivor benefit are actuarially determined based on the member's and survivor's ages at the death of the member.

Early retirement reductions apply to the survivor benefit based on the member's age when deceased. If the deceased member had not yet attained age 55 at time of death, the additional early retirement reduction from age 55 to the age of the member at death applies at only one-half of the actuarial rate.

SUMMARY OF BENEFIT PROVISIONS FOR COORDINATED MEMBERS AS OF JULY 1, 2015

REFUND OF CONTRIBUTIONS

Eligibility

Termination or death where no annuity is payable or a refund of contributions is chosen in lieu of an annuity.

Benefit

Member contributions with 6.00 percent interest accrued until July 1, 2011 with 4.00 percent accrual thereafter.

REEMPLOYED ANNUITANTS

The School District shall make the regular employer contribution and additional employer contribution, plus a supplemental contribution equal to 2.5% of salary, on behalf of any retired member who is reemployed by the School District. Reemployed annuitants do not accrue additional benefits.

NORMAL FORM OF RETIREMENT BENEFITS

Straight life annuity. Actuarially equivalent options are available to provide post-retirement beneficiary or survivor benefits.

BENEFIT INCREASES

If the Accrued Liability Funding Ratio, based on Actuarial Value of Assets, as determined by the two consecutive and most recent actuarial valuations are:

Less than 80 percent for two consecutive years, the COLA: 1.00 percent

Between 80 percent and 90 percent for two consecutive years, the COLA: 2.00 percent

If at least 90 percent for two consecutive years, the COLA: 2.50 percent

SECTION 7

ADDITIONAL DISCLOSURES

TABLE 14
ADDITIONAL DISCLOSURES – SCHEDULE OF FUNDING PROGRESS
(dollars in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (A)	Actuarial Accrued Liability (B)	Unfunded AAL (UAAL) (B)-(A)	Funded Ratio (A)/(B)	Actual Covered Payroll (Previous FY) (C)	UAAL as % of Covered Payroll ((B)-(A))/(C)
07/01/95	\$ 445,733	\$ 633,070	\$ 187,337	70.41%	\$ 139,175	134.61%
07/01/96	494,931	664,072	169,141	74.53%	145,677	116.11%
07/01/97	556,406	805,066	248,660	69.11%	151,363	164.28%
07/01/98	625,053	861,584	236,531	72.55%	168,564	140.32%
07/01/99	704,233	938,847	234,614	75.01%	178,254	131.62%
07/01/00	801,823	998,253	196,430	80.32%	187,950	104.51%
07/01/01	869,045	1,060,931	191,886	81.91%	202,915	94.56%
07/01/02	899,572	1,141,300	241,728	78.82%	201,456	119.99%
07/01/03	898,760	1,189,361	290,601	75.57%	205,655	141.31%
07/01/04	898,860	1,251,460	352,600	71.82%	221,685	159.05%
07/01/05	905,292	1,299,832	394,540	69.65%	223,762	176.32%
07/01/06	938,919	1,346,072	407,153	69.75%	226,351	179.88%
07/01/07	1,015,722	1,380,151	364,429	73.59%	229,172	159.02%
07/01/08	1,075,951	1,432,040	356,089	75.13%	235,993	150.89%
07/01/09	1,049,954	1,454,314	404,360	72.20%	243,166	166.29%
07/01/10	1,001,444	1,471,630	470,185	68.05%	239,996	195.91%
07/01/11	972,718	1,389,875	417,157	69.99%	239,738	174.01%
07/01/12	911,930	1,471,216	559,286	61.98%	239,053	233.96%
07/01/13	886,296	1,467,350	581,054	60.40%	247,432	234.83%
07/01/14	947,972	1,533,603	585,631	61.81%	259,740	225.47%
07/01/15	999,736	1,596,770	597,034	62.61%	263,844	226.28%

TABLE 15
ADDITIONAL DISCLOSURES – SCHEDULE OF EMPLOYER CONTRIBUTIONS
(dollars in thousands)

Year Ended June 30	Actuarially Required Contribution Rate (A)	Actual Covered Payroll (B)	Actual Member Contributions (C)	Annual Required Contributions (D) = [(A)*(B)]-(C)	Actual Employer Contributions ⁽¹⁾ (E)	Percentage Contributed (E) / (D)
1996	17.96%	\$ 145,677	\$ 9,093	\$ 17,071	\$ 15,101	88.46%
1997	16.97%	151,363	9,484	16,202	16,043	99.02
1998	20.35%	168,564	11,057	23,246	21,702	93.36
1999	18.82%	178,254	11,649	21,898	21,066	96.20
2000	18.09%	187,950	13,184	20,816	22,622	108.68
2001	16.57%	202,915	13,170	20,453	23,569	115.23
2002	15.81%	201,456	14,468	17,382	24,216	139.32
2003	18.56% ⁽²⁾	205,655	14,222	23,948	23,370	97.59
2004	20.36%	221,685	14,308	30,827	23,771	77.11
2005	21.59%	223,762	13,587	34,723	23,833	68.64
2006	23.78%	226,351	13,453	40,373	24,015	59.48
2007	24.55%	229,172	13,438	42,823	24,117	56.32
2008	23.40%	235,993	13,642	41,580	24,285	58.40
2009	17.63%	243,166	13,864	29,007	24,844	85.65
2010	18.40%	239,996	13,832	30,328	25,126	82.85
2011	19.84%	239,738	13,745	33,819	25,090	74.19
2012	18.37%	239,053	14,117	29,797	25,109	84.27
2013	22.87%	247,432	15,164	41,424	26,445	63.84
2014	22.13%	259,740	16,564	40,916	35,197	86.02
2015	21.94%	263,844	17,567	40,320	36,711	91.05

⁽¹⁾ Includes contributions from other sources (if applicable).

⁽²⁾ Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 16.19%.

TABLE 16
ADDITIONAL DISCLOSURES – DEVELOPMENT OF THE FUND
(dollars in thousands)

<u>Year Ended</u> <u>June 30</u>	<u>Employer</u> <u>Contributions</u>	<u>Employee</u> <u>Contributions</u>	<u>Supplemental</u> <u>Contributions*</u>	<u>Actuarial</u> <u>Net Investment</u> <u>Return</u>	<u>Administrative</u> <u>Expenses</u>	<u>Benefit</u> <u>Payments</u>	<u>Actuarial</u> <u>Value of</u> <u>Assets EOY</u>
2005	\$ 20,435	\$ 13,587	\$ 3,398	\$ 43,082	\$ 559	\$ 73,510	\$ 905,293
2006	19,815	13,453	4,200	76,317	591	79,567	938,919
2007	19,666	13,438	4,451	124,214	696	84,271	1,015,722
2008	20,775	13,642	3,509	112,804	691	89,810	1,075,951
2009	21,501	13,864	3,343	28,924	605	93,024	1,049,954
2010	21,018	13,832	4,108	9,496	602	96,362	1,001,444
2011	21,013	13,745	4,077	31,391	722	98,230	972,718
2012	21,452	14,117	3,658	3,447	736	102,726	911,930
2013	22,780	15,164	3,665	37,919	751	104,411	886,296
2014	24,532	16,564	10,665	117,499	739	106,845	947,972
2015	25,505	17,567	11,206	107,987	748	109,753	999,736

* Includes employer contributions for reemployed annuitants

TABLE 17
ADDITIONAL DISCLOSURES – SUPPLEMENTARY INFORMATION

Valuation Date	July 1, 2015
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Pay, Closed, Assuming Four Percent Payroll Growth
Amortization Period	Closed Period ending June 30, 2042
Asset Valuation Method	5-Year Smoothed Market
Actuarial Assumptions:	
Investment rate of return	8.00%
Projected salary increases	4.00% - 8.90%; age and service based
Cost-of-living adjustments	1% per year through 2040; 2% beginning January 1, 2041; 2.5% beginning January 1, 2051
Plan Membership:	
Active Members	3,756
Retirees and Beneficiaries	3,633
Terminated Vested Members	1,892
Other Non-Vested Terminated Members	<u>1,981</u>
Total	11,262