

ST. PAUL TEACHERS' RETIREMENT FUND ASSOCIATION
ACTUARIAL VALUATION
AS OF JULY 1, 2009



November 9, 2009

Mr. Phillip Kapler
St. Paul Teachers' Retirement Fund Association
1619 Dayton Avenue, Room 309
St. Paul, MN 55104-6206

Dear Mr. Kapler:

We are pleased to present the report of the actuarial valuation of the St. Paul Teachers' Retirement Fund Association ("Fund") as of July 1, 2009. This report provides among other things, the required annual contribution rate of the Fund for the Plan Year commencing July 1, 2009, and ending on June 30, 2010. The actuarial assumptions and actuarial cost method are those used in the prior valuation.

The necessary participant and financial data was provided by the Fund's staff. Their efforts in furnishing the materials needed are gratefully acknowledged. Data was checked for internal consistency, but was not otherwise audited.

The report has been prepared 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.

Determinations of the liability associated with the benefits described in this report for purposes other than those described above may produce significantly different results. This report may be provided to parties other than the Fund or State oversight entities only in its entirety and only with the permission of the Fund.

The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

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

Respectfully submitted,

W. James Koss, ASA, EA, MAAA

Cathy Nagy, FSA, EA, MAAA

WJK/CN:mrp

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SUMMARY OF VALUATION RESULTS

(dollars in thousands)

This report sets forth the results of the actuarial valuation of the St. Paul Teachers' Retirement Fund Association ("Fund") as of July 1, 2009. The purposes of this valuation are:

1. To develop the annual required contribution (ARC) rates under GASB requirements.
2. To compare the ARC 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.

Comments on Results

Total actuarial liabilities increased from \$1,432.0 to \$1,454.3 million. This increase is due to expected growth offset, in part, by liability gains from better than expected demographic experience. There was also a decrease in liability due to a smaller than expected COLA benefit increase as of January 1, 2010, provided as a result of the COLA Pilot Program.

The funded ratio based on actuarial value of assets decreased from 75.13% at July 1, 2008, to 72.20% at July 1, 2009. This decrease was mostly due to recognized investment losses during fiscal years 2008 and 2009.

The required contribution rate increased from 17.63% for fiscal year ending June 30, 2009, to 18.40% for fiscal year ending June 30, 2010, due to investment losses. The statutory contributions currently in place are not sufficient to cover this contribution rate. The statutory contribution rate for the current plan year based on the Basic Plan and Coordinated Plan active population at the valuation date is 15.64%, a shortfall of 2.76%.

Chapter 356 requires the Fund to indicate the funded ratio and contribution sufficiency or deficiency based on the Market Value of Assets. Using a Market Value of Assets of \$773.3 million results in a funded status of 53.17% and a contribution shortfall of 9.36% as of July 1, 2009.

SUMMARY OF VALUATION RESULTS
(dollars in thousands)

| | July 1, 2008 | July 1, 2009 |
|--|------------------|------------------------|
| | <u>Valuation</u> | <u>Valuation Final</u> |
| A. CONTRIBUTIONS % OF PAYROLL (Table 11) | | |
| 1. Statutory Contributions - Chapter 354A | 15.73% | 15.64% |
| 2. Required Contributions - Chapter 356 | <u>17.63%</u> | <u>18.40%</u> |
| 3. Sufficiency / (Deficiency) | (1.90%) | (2.76%) |
| B. FUNDING RATIOS | | |
| 1. Accrued Benefit Funding Ratio | | |
| a. Current Assets (Table 1) | \$ 1,075,951 | \$ 1,049,954 |
| b. Current Benefit Obligations (Table 8) | <u>1,384,463</u> | <u>1,404,677</u> |
| c. Funding Ratio | 77.72% | 74.75% |
| 2. Accrued Liability Funding Ratio | | |
| a. Current Assets (Table 1) | \$ 1,075,951 | \$ 1,049,954 |
| b. Actuarial Accrued Liability (Table 9) | <u>1,432,040</u> | <u>1,454,314</u> |
| c. Funding Ratio | 75.13% | 72.20% |
| 3. Projected Benefit Funding Ratio (Table 8) | | |
| a. Current and Expected Future Assets | \$ 1,565,414 | \$ 1,552,760 |
| b. Current and Expected Future Benefit Obligations | <u>1,643,226</u> | <u>1,668,532</u> |
| c. Funding Ratio | 95.26% | 93.06% |
| C. PLAN PARTICIPANTS | | |
| 1. Active Members | | |
| a. Number (Table 3) | 4,019 | 3,860 |
| b. Projected Annual Earnings | \$ 247,291 | \$ 252,726 |
| c. Average Annual Earnings (Projected dollars) | \$ 60,007 | \$ 64,144 |
| d. Average Age | 44.9 | 45.3 |
| e. Average Service | 11.4 | 12.0 |
| f. Additional Members on Leave of Absence | 102 | 80 |
| 2. Others | | |
| a. Service Retirements (Table 4) | 2,535 | 2,615 |
| b. Disability Retirements (Table 5) | 26 | 25 |
| c. Survivors (Table 6) | 290 | 293 |
| d. Deferred Retirements (Table 7) | 1,695 | 1,823 |
| e. Terminated Other Non-Vested (Table 7) | <u>1,403</u> | <u>1,451</u> |
| f. Total | 5,949 | 6,207 |

SUMMARY OF VALUATION RESULTS

Participants

Active membership decreased 4.4 percent during fiscal year 2009 from 4,121 to 3,940 (figures include members on leave of absence). Total participants receiving benefits under the Fund, including disabled retirees and beneficiaries, increased 2.9 percent during fiscal year 2009 from 2,851 to 2,933. Total expenditures for these benefits increased from \$89.8 million to \$93.0 million during fiscal year 2009, or 3.6 percent.

Changes in Provisions of the Fund

The COLA Pilot Program in effect for calendar years 2008 and 2009 has been extended to 2010 and 2011. The investment performance test for the COLA Pilot Program has been removed for the 2010 and 2011 calendar years.

Actuarial Assumptions

Actuarial assumptions are used to project future demographic and economic expectations for purposes of valuing the liabilities of the plan. The assumptions should reflect current patterns. However, their primary orientation is the long-term outlook for each factor affecting the valuation. Thus, while actual experience will fluctuate over the short run, actuarial assumptions are chosen in an attempt to model the future long-term experience. The actuarial assumptions were developed in accordance with the Standards for Actuarial Work established by the Minnesota Legislative Commission on Pensions and Retirement (“Standards for Actuarial Work”).

Asset Valuation Method

The method used to develop the Fund’s Actuarial Value of Assets, as set out in the Standards for Actuarial Work, is as follows: In years when Fund assets earn above 8.5 percent (i.e., experience gain) or below 8.5 percent (i.e., experience loss) the gain (or loss) will be gradually recognized over five years. This approach both smoothes the Fund’s level of contributions and ensures the Fund’s assets will track the market value of assets.

Experience Analysis

Overall, the Fund experienced a loss of \$34.5 million. There were no large deviations from the expected plan demographic experience. In general, salary increases were smaller than predicted under the current valuation assumption and produced an actuarial gain of \$5.3 million. There were fewer retirements than expected, resulting in a gain of \$2.5 million. Extension of the COLA Pilot Program produced a liability decrease of \$17.4 million. The largest component of the Fund’s loss was due to investment losses. Lower than expected asset returns during FY 2008 and FY 2009, along with the scheduled recognition of gains and losses from prior years produced an overall loss of \$60.2 million on the actuarial value of assets.

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

SUMMARY OF VALUATION RESULTS

Looking Ahead

Investment markets continue to be volatile. 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, 2009, the actuarial value of assets was 13.6% of market value. This means that meeting the actuarial assumption in the next few years will require average future market returns that exceed the 8.5% investment return assumption.

If the July 1, 2009, valuation results were based on market value instead of smoothed actuarial value, the funding of the plan would be 53.17% (instead of 72.2%) and the required contribution shortfall would be 9.36% (instead of 2.76%). If investment markets do not turn around, the funded ratio and contribution shortfall can be expected to trend in this direction.

SECTION 1

ASSET INFORMATION

ASSETS OF THE PLAN

The cost value of the plan assets decreased from \$767.1 million as of June 30, 2008, to \$720.1 million as of June 30, 2009. The market value of the plan assets decreased from \$1,023.6 million as of June 30, 2008, to \$ 773.3 million as of June 30, 2009. The expected return on assets using the valuation interest rate assumption of 8.5 percent was \$84.7 million. The actual plan experience showed a (negative) return on assets of \$(195.5) million. Twenty percent of the asset return below the expected \$84.7 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 loss of \$60.2 million on the actuarial value of assets.

Table 1 shows the composition of assets as of June 30, 2009, and the development of the actuarial value of assets as of June 30, 2009. Table 2 details the development of asset values during fiscal year 2009.

TABLE 1
ACCOUNTING BALANCE SHEET
AS OF JUNE 30, 2009
(dollars in thousands)

| | Market Value | Cost Value |
|---|-------------------|---------------------|
| A. ASSETS | | |
| 1. Cash, Equivalents, Short-Term Securities | \$ 7,946 | \$ 7,946 |
| 2. Investments | | |
| a. Fixed Income | 142,294 | 121,492 |
| b. Equity | 553,716 | 516,953 |
| c. Real Estate | 61,750 | 64,529 |
| d. Alternative | 5,575 | 7,247 |
| 3. Other Assets* | 10,151 | 10,151 |
| B. TOTAL ASSETS | \$ 781,432 | \$ 728,318 |
| C. AMOUNTS CURRENTLY PAYABLE | \$ 8,173 | \$ 8,173 |
| D. ASSETS AVAILABLE FOR BENEFITS | | |
| 1. Member Reserves | \$ 140,908 | \$ 140,908 |
| 2. Employer Reserves | 632,351 | 579,237 |
| 3. Total Assets Available for Benefits | \$ 773,259 | \$ 720,145 |
| E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS | \$ 781,432 | \$ 728,318 |
| F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS | | |
| 1. Market Value of Assets Available for Benefits (D.3) | \$ 773,259 | |
| 2. Unrecognized Asset Returns | | |
| a. June 30, 2009 | \$ (280,135) | |
| b. June 30, 2008 | (175,830) | |
| c. June 30, 2007 | 114,209 | |
| d. June 30, 2006 | 36,135 | |
| 3. UAR Adjustment: $.80 * 2(a) + .60 * 2(b) + .40 * 2(c) + .20 * 2(d)$ | | (276,695) |
| 4. Actuarial Value of Assets (F.1 - F.3) | | \$ 1,049,954 |

*** DERIVATION OF OTHER ASSETS**

| | Market Value |
|---------------------------------|---------------------|
| Accounts Receivable | |
| Employer Contribution | \$ 1,446 |
| Employee Contribution | 50 |
| Service Purchases Receivable | 37 |
| Pensions Receivable | 1 |
| State Contributions | 376 |
| Real Estate Income receivable | 18 |
| Commission Recapture Receivable | 1 |
| Interest Receivable | 282 |
| Dividend Receivable | 178 |
| Security Purchases Receivable | 145 |
| Sale of Securities | 7,591 |
| Total Accounts Receivable | \$ 10,125 |
| Fixed Assets | 26 |
| Total Other Assets | \$ 10,151 |

TABLE 2
CHANGE IN ASSETS AVAILABLE FOR BENEFITS
AS OF JUNE 30, 2009
(dollars in thousands)

| | Market Value | Cost Value |
|--|--------------|--------------|
| A. ASSETS AVAILABLE AT BEGINNING OF PERIOD | \$ 1,023,640 | \$ 767,058 |
| B. OPERATING REVENUES | | |
| 1. Member Contributions | \$ 13,864 | \$ 13,864 |
| 2. Employer Contributions | 21,501 | 21,501 |
| 3. Supplemental Contributions | 3,343 | 3,343 |
| 4. Investment Income | 13,732 | 13,732 |
| 5. Investment Expenses | (3,636) | (3,636) |
| 6. Net Realized Gain / (Loss) | (2,088) | (2,088) |
| 7. Other | - | - |
| 8. Net Change in Unrealized Gain / (Loss) | (203,468) | - |
| 9. Total Operating Revenue | \$ (156,752) | \$ 46,716 |
| C. OPERATING EXPENSES | | |
| 1. Service retirements | \$ 83,374 | \$ 83,374 |
| 2. Disability benefits | 794 | 794 |
| 3. Survivor benefits | 7,969 | 7,969 |
| 4. Refunds | 887 | 887 |
| 5. Administrative expenses | 605 | 605 |
| 6. Total operating expenses | \$ 93,629 | \$ 93,629 |
| D. OTHER CHANGES IN RESERVES | \$ - | \$ - |
| E. ASSETS AVAILABLE AT END OF PERIOD | \$ 773,259 | \$ 720,145 |
| F. DETERMINATION OF CURRENT YEAR UNRECOGNIZED ASSET RETURN | | |
| 1. Average Balance | | |
| (a) Assets available at BOY: | | \$ 1,023,640 |
| (b) Assets available at EOY: | | 773,259 |
| (c) Average balance $\{[(a) + (b) - \text{Net Investment Income}] / 2\}$ {Net investment income: B.4+B.5+B.6+B.7+B.8} | | \$ 996,179 |
| 2. Expected Return: $.085 * F.1$ | | 84,675 |
| 3. Actual Return | | (195,459) |
| 4. Current year gross asset return: $F.3 - F.2$ | | \$ (280,135) |

SECTION 2

TOTAL MEMBERSHIP DATA

TABLE 3
ACTIVE MEMBERS AS OF JUNE 30, 2009

| Age | Years of Service | | | | | | | | ALL |
|------------|------------------|-----|-------|-------|-------|-------|-------|-----|-------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | |
| <25 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| 25-29 | 261 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 320 |
| 30-34 | 181 | 241 | 69 | 0 | 0 | 0 | 0 | 0 | 491 |
| 35-39 | 106 | 157 | 234 | 36 | 0 | 0 | 0 | 0 | 533 |
| 40-44 | 88 | 103 | 187 | 118 | 21 | 0 | 0 | 0 | 517 |
| 45-49 | 66 | 77 | 125 | 112 | 107 | 6 | 1 | 0 | 494 |
| 50-54 | 59 | 75 | 106 | 119 | 82 | 78 | 29 | 0 | 548 |
| 55-59 | 70 | 63 | 96 | 102 | 97 | 87 | 80 | 16 | 611 |
| 60-64 | 39 | 34 | 47 | 47 | 47 | 27 | 22 | 27 | 290 |
| 65+ | 25 | 5 | 11 | 2 | 9 | 6 | 0 | 4 | 62 |
| ALL | 969 | 814 | 875 | 536 | 363 | 204 | 132 | 47 | 3,940 |

AVERAGE ANNUAL EARNINGS

| Age | Years of Service | | | | | | | | ALL |
|------------|------------------|--------|--------|--------|--------|--------|--------|---------|--------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | |
| <25 | 21,192 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21,192 |
| 25-29 | 36,000 | 51,593 | 0 | 0 | 0 | 0 | 0 | 0 | 38,875 |
| 30-34 | 38,013 | 54,228 | 61,194 | 0 | 0 | 0 | 0 | 0 | 49,230 |
| 35-39 | 42,955 | 57,772 | 66,779 | 74,390 | 0 | 0 | 0 | 0 | 59,902 |
| 40-44 | 39,938 | 59,489 | 68,504 | 74,244 | 77,678 | 0 | 0 | 0 | 63,528 |
| 45-49 | 33,727 | 64,219 | 68,643 | 75,615 | 82,316 | 91,020 | 55,162 | 0 | 68,075 |
| 50-54 | 37,549 | 56,738 | 67,100 | 75,261 | 77,567 | 78,633 | 88,005 | 0 | 68,587 |
| 55-59 | 32,746 | 50,989 | 66,617 | 71,146 | 76,411 | 78,148 | 84,435 | 79,000 | 67,735 |
| 60-64 | 32,705 | 46,043 | 69,908 | 75,359 | 75,967 | 80,289 | 84,651 | 84,001 | 67,369 |
| 65+ | 10,303 | 16,972 | 60,732 | 77,905 | 65,257 | 81,603 | 0 | 106,732 | 43,067 |
| ALL | 35,272 | 55,741 | 67,087 | 74,288 | 78,152 | 79,097 | 85,034 | 84,233 | 60,345 |

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

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35 & Over | ALL |
|------------|--------|--------|--------|--------|--------|--------|--------|-----------|---------|
| ALL | 34,179 | 45,373 | 58,701 | 39,818 | 28,369 | 16,136 | 11,224 | 3,959 | 237,760 |

TABLE 4
SERVICE RETIREMENTS AS OF JUNE 30, 2009

| 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 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 55-59 | 155 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155 |
| 60-64 | 390 | 196 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 587 |
| 65-69 | 171 | 314 | 134 | 1 | 0 | 0 | 1 | 0 | 0 | 621 |
| 70-74 | 21 | 125 | 248 | 79 | 1 | 0 | 0 | 0 | 0 | 474 |
| 75-79 | 4 | 14 | 124 | 148 | 54 | 1 | 1 | 0 | 0 | 346 |
| 80-84 | 1 | 4 | 12 | 70 | 124 | 32 | 2 | 0 | 0 | 245 |
| 85-89 | 0 | 1 | 2 | 5 | 45 | 54 | 10 | 0 | 0 | 117 |
| 90+ | 0 | 1 | 0 | 1 | 6 | 21 | 34 | 5 | 1 | 69 |
| ALL | 742 | 656 | 520 | 305 | 230 | 108 | 48 | 5 | 1 | 2,615 |

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 | 0 | 2,400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,400 |
| 55-59 | 28,320 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28,320 |
| 60-64 | 32,043 | 35,348 | 0 | 11,775 | 0 | 0 | 0 | 0 | 0 | 33,112 |
| 65-69 | 24,729 | 30,352 | 31,070 | 27,269 | 0 | 0 | 53,170 | 0 | 0 | 28,990 |
| 70-74 | 29,991 | 31,633 | 40,012 | 31,232 | 64,022 | 0 | 0 | 0 | 0 | 35,946 |
| 75-79 | 8,073 | 8,714 | 47,140 | 38,154 | 31,143 | 58,219 | 56,772 | 0 | 0 | 38,853 |
| 80-84 | 463 | 26,571 | 41,401 | 42,345 | 32,654 | 23,693 | 67,487 | 0 | 0 | 34,734 |
| 85-89 | 0 | 30,515 | 33,842 | 42,396 | 26,945 | 32,661 | 25,783 | 0 | 0 | 30,293 |
| 90+ | 0 | 55,535 | 0 | 73,878 | 39,941 | 26,169 | 21,725 | 25,227 | 16,968 | 26,092 |
| ALL | 29,350 | 31,600 | 39,416 | 37,388 | 31,509 | 28,978 | 25,862 | 25,227 | 16,968 | 32,951 |

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|--------|--------|--------|--------|-------|-------|-------|-------|-----------|--------|
| ALL | 21,778 | 20,730 | 20,496 | 11,403 | 7,247 | 3,130 | 1,241 | 126 | 17 | 86,168 |

TABLE 5
DISABILITY RETIREMENTS AS OF JUNE 30, 2009

| 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 50-54 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 55-59 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 60-64 | 6 | 2 | 5 | 1 | 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 | 12 | 6 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 25 |

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 | 23,191 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,191 |
| 50-54 | 12,761 | 24,214 | 5,364 | 0 | 0 | 0 | 0 | 0 | 0 | 16,638 |
| 55-59 | 7,472 | 27,118 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14,020 |
| 60-64 | 44,235 | 26,595 | 49,774 | 30,918 | 0 | 0 | 0 | 0 | 0 | 42,742 |
| 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 | 27,604 | 25,976 | 42,372 | 30,918 | 0 | 0 | 0 | 0 | 0 | 30,890 |

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| ALL | 331 | 156 | 254 | 31 | 0 | 0 | 0 | 0 | 0 | 772 |

TABLE 6
SURVIVORS AS OF JUNE 30, 2009

| Age | Years Since Member Death | | | | | | | | | ALL |
|-------|--------------------------|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | |
| <45 | 1 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-54 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 55-59 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 7 |
| 60-64 | 1 | 6 | 6 | 3 | 2 | 1 | 0 | 0 | 0 | 19 |
| 65-69 | 1 | 8 | 8 | 9 | 5 | 1 | 0 | 0 | 0 | 32 |
| 70-74 | 2 | 4 | 11 | 20 | 6 | 4 | 2 | 0 | 0 | 49 |
| 75-79 | 0 | 1 | 1 | 15 | 19 | 4 | 2 | 1 | 0 | 43 |
| 80-84 | 0 | 0 | 1 | 5 | 27 | 20 | 3 | 0 | 0 | 56 |
| 85-89 | 0 | 0 | 0 | 3 | 8 | 22 | 10 | 1 | 0 | 44 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 6 | 17 | 4 | 0 | 27 |
| ALL | 10 | 30 | 31 | 55 | 68 | 58 | 34 | 7 | 0 | 293 |

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 | 510 | 9,847 | 2,315 | 0 | 0 | 0 | 0 | 0 | 0 | 6,654 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-54 | 20,823 | 13,956 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17,390 |
| 55-59 | 30,062 | 8,056 | 13,331 | 0 | 26,278 | 0 | 0 | 3,350 | 0 | 17,028 |
| 60-64 | 15,460 | 15,043 | 29,697 | 22,569 | 16,394 | 19,389 | 0 | 0 | 0 | 21,252 |
| 65-69 | 19,363 | 26,885 | 37,800 | 41,972 | 18,032 | 23,172 | 0 | 0 | 0 | 32,123 |
| 70-74 | 33,174 | 34,067 | 41,183 | 34,349 | 32,054 | 16,968 | 23,131 | 0 | 0 | 33,654 |
| 75-79 | 0 | 32,842 | 13,925 | 37,744 | 29,592 | 26,065 | 26,246 | 16,342 | 0 | 31,355 |
| 80-84 | 0 | 0 | 51,573 | 39,916 | 30,492 | 25,212 | 33,228 | 0 | 0 | 29,971 |
| 85-89 | 0 | 0 | 0 | 61,313 | 26,424 | 26,665 | 21,367 | 17,301 | 0 | 27,566 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 19,841 | 21,137 | 22,021 | 0 | 20,980 |
| ALL | 22,428 | 19,717 | 32,883 | 37,857 | 28,507 | 24,562 | 22,689 | 17,868 | 0 | 27,907 |

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

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-----------|-------|
| ALL | 224 | 592 | 1,019 | 2,082 | 1,938 | 1,425 | 771 | 125 | 0 | 8,177 |

TABLE 7
RECONCILIATION OF MEMBERS
AS OF JUNE 30, 2009

| | Active Participants | Leave of Absence | Vested Terminated | Other Non-Vested | Retired Participants | Disabled | Survivors and Beneficiaries | Alternate Payees | Total |
|----------------------------------|------------------------|---------------------|----------------------|---------------------|-------------------------|----------|--------------------------------|---------------------|--------|
| A. Number as of June 30, 2008 | 4,019 | 102 | 1,695 | 1,403 | 2,514 | 26 | 290 | 21 | 10,070 |
| B. Additions | 355 | 47 | 201 | 329 | 132 | 1 | 16 | 2 | 1,083 |
| C. Deletions | | | | | | | | | |
| 1. Retirements | (97) | (2) | (32) | - | - | - | - | - | (131) |
| 2. Disability | (1) | - | - | - | - | - | - | - | (1) |
| 3. Died With Beneficiary | - | (1) | - | - | (15) | - | (12) | - | (28) |
| 4. Died Without Beneficiary | (2) | - | (1) | (1) | (37) | (1) | - | - | (42) |
| 5. Terminated - Deferred | (101) | (25) | - | (75) | - | - | - | - | (201) |
| 6. Terminated - Not Vested | (325) | (3) | (1) | - | - | - | - | - | (329) |
| 7. Refunds | (17) | (1) | (30) | (116) | - | - | - | - | (164) |
| 8. Rehired as Active | 74 | (37) | (13) | (18) | - | - | - | - | 6 |
| 9. Leave of Absence | (47) | - | - | - | - | - | - | - | (47) |
| 10. Expired Benefits | - | - | - | - | - | - | (2) | (1) | (3) |
| 11. Disability to Retirement | - | - | - | - | - | (1) | - | - | (1) |
| 12. Write-offs | - | - | - | (74) | - | - | - | - | (74) |
| D. Data Adjustments ¹ | 2 | - | 4 | 3 | (1) | - | 1 | - | 9 |
| E. Total on June 30, 2009 | 3,860 | 80 | 1,823 | 1,451 | 2,593 | 25 | 293 | 22 | 10,147 |

¹ Includes members not valued in prior valuation who repaid refunds for prior service.

SECTION 3
FUNDING STATUS

TABLE 8
ACTUARIAL BALANCE SHEET
AS OF JULY 1, 2009
(dollars in thousands)

| | | | |
|--|-------------------|---------------------|---------------------|
| A. CURRENTS ASSETS (TABLE 1; Line F.4) | | \$ 1,049,954 | |
| B. EXPECTED FUTURE ASSETS | | | |
| 1. Present Value of Expected Future Statutory Supplemental Contributions | | \$ 288,588 | |
| 2. Present Value of Future Normal Costs | | 214,218 | |
| 3. Total Expected Future Assets | | <u>\$ 502,806</u> | |
| C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS | | <u>\$ 1,552,760</u> | |
| D. CURRENT BENEFIT OBLIGATIONS | | | |
| | <u>Non-Vested</u> | <u>Vested</u> | <u>Total</u> |
| 1. Benefit Recipients | | | |
| a. Retirement Annuitants | | \$ 871,957 | \$ 871,957 |
| b. Disability Benefits | | 6,900 | 6,900 |
| c. Surviving Spouse and Child Benefits | | 63,548 | 63,548 |
| 2. Deferred Retirements | | 48,169 | 48,169 |
| 3. Former Members Without Vested Rights | | 1,752 | 1,752 |
| 4. Active Members | | | |
| a. Retirement Annuitants | \$ 1,698 | \$ 383,587 | \$ 385,285 |
| b. Disability Benefits | 35 | 4,288 | 4,323 |
| c. Surviving Spouse and Child Benefits | 42 | 5,568 | 5,610 |
| d. Withdrawals | 837 | 16,296 | 17,133 |
| 5. Total Current Benefit Obligations | <u>\$ 2,612</u> | <u>\$ 1,402,065</u> | <u>\$ 1,404,677</u> |
| E. EXPECTED FUTURE BENEFIT OBLIGATIONS | | | <u>\$ 263,855</u> |
| F. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS | | | <u>\$ 1,668,532</u> |
| G. CURRENT UNFUNDED ACTUARIAL LIABILITY (D.5 - A) | | | \$ 354,723 |
| H. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F - C) | | | \$ 115,772 |

TABLE 9
DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)
AND SUPPLEMENTAL CONTRIBUTION RATE
AS OF JULY 1, 2009
(dollars in thousands)

| | Actuarial Present Value of Projected Benefits | Actuarial Present Value of Future Normal Costs | Actuarial Accrued Liability |
|---|--|---|-----------------------------------|
| A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL) | | | |
| 1. Active Members | | | |
| a. Retirement Benefits* | \$ 629,257 | \$ 178,728 | \$ 450,529 |
| b. Disability Benefits | 7,641 | 3,266 | 4,375 |
| c. Surviving Spouse and Child Benefits | 10,326 | 4,123 | 6,203 |
| d. Withdrawals | 28,981 | 28,100 | 881 |
| e. Total | \$ 676,206 | \$ 214,218 | \$ 461,988 |
| 2. Deferred Retirements | \$ 48,169 | - | \$ 48,169 |
| 3. Former Members Without Vested Rights | 1,752 | - | 1,752 |
| 4. Annuitants | 942,405 | - | 942,405 |
| 5. Total | \$ 1,668,532 | \$ 214,218 | \$ 1,454,314 |
| B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) | | | |
| 1. Actuarial Accrued Liability (A.5) | | | \$ 1,454,314 |
| 2. Current Assets (Table I; Line F.4) | | | 1,049,954 |
| 3. Unfunded Actuarial Accrued Liability (B.1 - B.2) | | | \$ 404,360 |
| C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE | | | |
| 1. Present Value of Future Payrolls Through the Amortization Date of June 30, 2034 (25-year rolling amortization) | | | 4,194,590 |
| 2. Supplemental Contribution Rate (B.3 / C.1) | | | 9.64% |

*Includes members on leave of absence.

TABLE 10
CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)
AS OF JULY 1, 2009
(dollars in thousands)

| | | |
|---|-----------|----------------|
| A. UAAL AT BEGINNING OF YEAR | \$ | 356,089 |
| B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING | | |
| 1. Normal Cost and Expenses | \$ | 22,001 |
| 2. Contributions | | (38,708) |
| 3. Interest | | 30,492 |
| 4. Total | <u>\$</u> | <u>13,785</u> |
| C. EXPECTED UAAL AT END OF YEAR (A.4 + B.4) | \$ | 369,874 |
| D. INCREASE / (DECREASE) DUE TO ACTUARIAL LOSSES / (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED | | |
| 1. Age and Service Retirements | \$ | (2,248) |
| 2. Disability Retirements | | 47 |
| 3. Death-in-Service Benefits | | 75 |
| 4. Withdrawals | | (1,064) |
| 5. Salary Increases | | (5,264) |
| 6. Investment Income | | 60,198 |
| 7. Mortality of Annuitants | | 482 |
| 8. Other Items | | (379) |
| 9. Total | <u>\$</u> | <u>51,847</u> |
| E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTIONS (C + D.10) | \$ | 421,721 |
| F. CHANGE IN UAAL DUE TO PLAN AMENDMENTS | | (17,361) |
| G. CHANGE IN UAAL DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS | | <u>-</u> |
| H. UAAL AT END OF YEAR (E + F + G) | <u>\$</u> | <u>404,360</u> |

TABLE 11
DETERMINATION OF CONTRIBUTION SUFFICIENCY
AS OF JULY 1, 2009
(dollars in thousands)

| | Percent of Payroll | Dollar Amount |
|---|-----------------------|------------------|
| A. STATUTORY CONTRIBUTIONS - CHAPTER 354A | | |
| 1. Employee Contributions | 5.58% | \$ 14,108 |
| 2. Employer Contributions | 8.45% | \$ 21,351 |
| 3. Supplemental Contribution | | |
| a. 1996 Legislation | 0.49% | 1,230 |
| b. 1997 Legislation | 1.12% | 2,827 |
| 4. Total | <u>15.64%</u> | <u>\$ 39,516</u> |
| B. REQUIRED CONTRIBUTIONS - CHAPTER 356 | | |
| 1. Normal Cost | | |
| a. Retirement Benefits | 7.11% | \$ 17,980 |
| b. Disability Benefits | 0.13% | 337 |
| c. Surviving Spouse and Child Benefits | 0.16% | 406 |
| d. Withdrawals | 1.12% | 2,835 |
| e. Total | <u>8.52%</u> | <u>\$ 21,558</u> |
| 2. Supplemental Contribution Amortization | 9.64% | 24,363 |
| 3. Allowance for Administrative Expenses | 0.24% | 607 |
| 4. Total | <u>18.40%</u> | <u>\$ 46,528</u> |
| C. CONTRIBUTION SUFFICIENCY / (DEFICIENCY) (A.4 - B.4) | (2.76%) | (7,012) |
| Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date: | | \$ 252,726 |

SECTION 4

ACTUARIAL METHODS AND ASSUMPTIONS

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2009

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.

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 statutory amortization period using level percent of payroll assuming payroll increases of 5.00% 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

A. Demographic Assumptions

Mortality:

1. Healthy Pre-Retirement:
 - a. Male: 1983 Group Annuity Mortality Table for Males set back 7 years
 - b. Female: 1983 Group Annuity Mortality Table for Females set back 5 years
2. Healthy Post-Retirement
 - a. Male: 1983 Group Annuity Mortality Table for Males set back 4 years
 - b. Female: 1983 Group Annuity Mortality Table for Females set back 1 year
3. Disabled Mortality
 - a. Male: 1977 Railroad Retirement Board Mortality Table for Disabled Lives
 - b. Female: 1977 Railroad Retirement Board Mortality Table for Disabled Lives

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2009

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

| <u>Age</u> | <u>Pre-Retirement Mortality</u> | | <u>Post-Retirement Mortality</u> | | <u>Post-Disability Mortality</u> | |
|------------|---------------------------------|---------------|----------------------------------|---------------|----------------------------------|---------------|
| | <u>Male</u> | <u>Female</u> | <u>Male</u> | <u>Female</u> | <u>Male</u> | <u>Female</u> |
| 20 | 3 | 1 | 3 | 2 | 57 | 57 |
| 21 | 3 | 1 | 3 | 2 | 60 | 60 |
| 22 | 3 | 2 | 4 | 2 | 63 | 63 |
| 23 | 3 | 2 | 4 | 2 | 66 | 66 |
| 24 | 3 | 2 | 4 | 2 | 69 | 69 |
| 25 | 4 | 2 | 4 | 2 | 72 | 72 |
| 26 | 4 | 2 | 4 | 3 | 75 | 75 |
| 27 | 4 | 2 | 4 | 3 | 79 | 79 |
| 28 | 4 | 2 | 4 | 3 | 82 | 82 |
| 29 | 4 | 2 | 5 | 3 | 87 | 87 |
| 30 | 4 | 3 | 5 | 3 | 91 | 91 |
| 31 | 4 | 3 | 5 | 3 | 95 | 95 |
| 32 | 5 | 3 | 5 | 4 | 99 | 99 |
| 33 | 5 | 3 | 6 | 4 | 103 | 103 |
| 34 | 5 | 3 | 6 | 4 | 107 | 107 |
| 35 | 5 | 3 | 6 | 4 | 273 | 273 |
| 36 | 6 | 4 | 7 | 5 | 273 | 273 |
| 37 | 6 | 4 | 7 | 5 | 273 | 273 |
| 38 | 6 | 4 | 8 | 5 | 273 | 273 |
| 39 | 7 | 4 | 9 | 6 | 273 | 273 |
| 40 | 7 | 5 | 9 | 6 | 273 | 273 |
| 41 | 8 | 5 | 10 | 7 | 273 | 273 |
| 42 | 9 | 5 | 10 | 7 | 273 | 273 |
| 43 | 9 | 6 | 11 | 8 | 274 | 274 |
| 44 | 10 | 6 | 12 | 8 | 274 | 274 |

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2009

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

| Age | Pre-Retirement Mortality | | Post-Retirement Mortality | | Post-Disability Mortality | |
|-----|--------------------------|--------|---------------------------|--------|---------------------------|--------|
| | Male | Female | Male | Female | Male | Female |
| 45 | 10 | 7 | 14 | 9 | 274 | 274 |
| 46 | 11 | 7 | 15 | 10 | 275 | 275 |
| 47 | 12 | 8 | 17 | 11 | 276 | 276 |
| 48 | 14 | 8 | 19 | 12 | 279 | 279 |
| 49 | 15 | 9 | 22 | 14 | 283 | 283 |
| 50 | 17 | 10 | 25 | 15 | 289 | 289 |
| 51 | 19 | 11 | 28 | 16 | 297 | 297 |
| 52 | 22 | 12 | 31 | 18 | 310 | 310 |
| 53 | 25 | 14 | 35 | 19 | 327 | 327 |
| 54 | 28 | 15 | 39 | 21 | 348 | 348 |
| 55 | 31 | 16 | 43 | 23 | 371 | 371 |
| 56 | 35 | 18 | 48 | 25 | 395 | 395 |
| 57 | 39 | 19 | 52 | 28 | 417 | 417 |
| 58 | 43 | 21 | 57 | 31 | 437 | 437 |
| 59 | 48 | 23 | 61 | 34 | 455 | 455 |
| 60 | 52 | 25 | 66 | 38 | 473 | 473 |
| 61 | 57 | 28 | 71 | 42 | 494 | 494 |
| 62 | 61 | 31 | 77 | 47 | 516 | 516 |
| 63 | 66 | 34 | 84 | 52 | 541 | 541 |
| 64 | 71 | 38 | 92 | 58 | 569 | 569 |
| 65 | 77 | 42 | 101 | 64 | 598 | 598 |
| 66 | 84 | 47 | 111 | 71 | 628 | 628 |
| 67 | 92 | 52 | 124 | 78 | 658 | 658 |
| 68 | 101 | 58 | 139 | 87 | 687 | 687 |
| 69 | 111 | 64 | 156 | 97 | 716 | 716 |

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2009

Rates of Disability:

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

| Age | Disability | Age | Disability |
|-----|------------|-----|------------|
| 20 | 1 | 45 | 4 |
| 21 | 1 | 46 | 4 |
| 22 | 1 | 47 | 4 |
| 23 | 1 | 48 | 4 |
| 24 | 1 | 49 | 4 |
| 25 | 1 | 50 | 7 |
| 26 | 1 | 51 | 7 |
| 27 | 1 | 52 | 7 |
| 28 | 1 | 53 | 7 |
| 29 | 1 | 54 | 7 |
| 30 | 2 | 55 | 14 |
| 31 | 2 | 56 | 14 |
| 32 | 2 | 57 | 14 |
| 33 | 2 | 58 | 14 |
| 34 | 2 | 59 | 14 |
| 35 | 2 | 60 | 29 |
| 36 | 2 | 61 | 29 |
| 37 | 2 | 62 | 29 |
| 38 | 2 | 63 | 29 |
| 39 | 2 | 64 | 29 |
| 40 | 2 | | |
| 41 | 2 | | |
| 42 | 2 | | |
| 43 | 2 | | |
| 44 | 2 | | |

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2009

Rates of Termination:

| <u>Years of Service</u> | <u>Number of Terminations per 1,000 Active Members</u> | |
|-------------------------|--|---------------|
| | <u>Male</u> | <u>Female</u> |
| 0 | 400 | 400 |
| 1 | 180 | 160 |
| 2 | 110 | 100 |
| 3 | 90 | 70 |
| 4 | 44 | 62 |
| 5 | 41 | 55 |
| 6 | 38 | 48 |
| 7 | 35 | 41 |
| 8 | 32 | 30 |
| 9 | 29 | 28 |
| 10 | 26 | 26 |
| 11 & Over | 16 | 10 |

Rates of Retirement:

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

| <u>Age</u> | <u>Basic Members Eligible for Rule of 90 Provision</u> | <u>Basic Members Not Eligible for Rule of 90 Provision</u> | <u>Coordinated Members Eligible for Rule of 90 Provision</u> | <u>Coordinated Members Not Eligible for Rule of 90 Provision</u> |
|------------|--|--|--|--|
| <55 | 5,000 | 0 | 5,000 | 0 |
| 55 | 5,000 | 800 | 5,000 | 500 |
| 56 | 5,000 | 1,300 | 5,000 | 500 |
| 57 | 4,000 | 1,300 | 4,000 | 500 |
| 58 | 4,000 | 1,800 | 4,000 | 700 |
| 59 | 3,500 | 1,800 | 4,000 | 700 |
| 60 | 3,500 | 2,000 | 4,000 | 700 |
| 61 | 3,500 | 2,000 | 4,500 | 1,000 |
| 62 | 3,500 | 4,000 | 4,500 | 2,000 |
| 63 | 3,500 | 4,000 | 3,000 | 2,000 |
| 64 | 4,000 | 4,000 | 3,000 | 2,000 |
| 65 | 5,000 | 5,000 | 5,000 | 3,500 |
| 66 | 3,000 | 5,000 | 3,000 | 3,000 |
| 67 | 3,000 | 5,000 | 3,000 | 3,000 |
| 68 | 3,000 | 5,000 | 3,000 | 3,000 |
| 69 | 3,000 | 5,000 | 3,000 | 3,000 |
| 70 & Over | 10,000 | 10,000 | 10,000 | 10,000 |

TABLE 12
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 2009

B. Economic Assumptions

- Investment Return Rate: Pre-retirement - 8.50% per annum
Post-retirement - 8.50% per annum
- Cost of Living Increases: 0.00% at January 1, 2010 (actual); 2.00% per annum thereafter
- Future Salary Increases: In addition to the age-based rates shown below, during a ten-year select period, a service-based component of 0.30% x (10-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 | 6.90% | 45 | 5.75% |
| 23 | 6.85 | 46 | 5.70 |
| 24 | 6.80 | 47 | 5.65 |
| | | 48 | 5.60 |
| 25 | 6.75 | 49 | 5.55 |
| 26 | 6.70 | | |
| 27 | 6.65 | 50 | 5.50 |
| 28 | 6.60 | 51 | 5.45 |
| 29 | 6.55 | 52 | 5.40 |
| | | 53 | 5.35 |
| 30 | 6.50 | 54 | 5.30 |
| 31 | 6.45 | | |
| 32 | 6.40 | 55 | 5.25 |
| 33 | 6.35 | 56 | 5.20 |
| 34 | 6.30 | 57 | 5.15 |
| | | 58 | 5.10 |
| 35 | 6.25 | 59 | 5.05 |
| 36 | 6.20 | | |
| 37 | 6.15 | 60 & Over | 5.00 |
| 38 | 6.10 | | |
| 39 | 6.05 | | |
| 40 | 6.00 | | |
| 41 | 5.95 | | |
| 42 | 5.90 | | |
| 43 | 5.85 | | |
| 44 | 5.80 | | |

- 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, 2009

C. Other Assumptions

| | |
|---|---|
| Marital Status: | It is assumed that 85% of male members and 60% of female members have an eligible spouse. The male spouse is assumed four 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 60. Coordinated Plan members are assumed to commence benefits at age 63. 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) expressed as a percentage of prior year payroll. |
| Allowance for Combined Service Annuity: | 7.00% load on liabilities for active members 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. Deferred vested members without salary information were valued using accumulated contributions. 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. Active members with salaries less than those reported at the prior valuation date are valued using their prior salary amount. |
| Accelerated Benefit Option: | Retired members who have elected the accelerated benefit option and who have not yet attained the age of 65 are assumed to receive 50 percent of their pre-65 benefit after age 65. |
| Supplemental Contributions: | According to 1996 legislation, the St. Paul School District and the State of Minnesota are scheduled to make a combined annual supplemental contributions of \$1,230,000. According to 1997 legislation, annual supplemental contributions of \$2,827,000 are scheduled to be paid on October 1. |

SECTION 5
BASIC PLAN

TABLE 3A
BASIC ACTIVE MEMBERS AS OF JUNE 30, 2009

| 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 | 1 | 8 | 0 | 9 |
| 55-59 | 0 | 0 | 0 | 0 | 1 | 11 | 29 | 10 | 51 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | 18 | 30 |
| 65+ | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 4 |
| ALL | 0 | 0 | 0 | 0 | 1 | 15 | 47 | 31 | 94 |

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 | 84,800 | 84,546 | 0 | 84,574 |
| 55-59 | 0 | 0 | 0 | 0 | 96,107 | 78,145 | 82,744 | 81,593 | 81,788 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 83,664 | 87,157 | 83,026 | 84,446 |
| 65+ | 0 | 0 | 0 | 0 | 0 | 94,302 | 0 | 114,637 | 109,553 |
| ALL | 0 | 0 | 0 | 0 | 96,107 | 80,402 | 83,990 | 85,623 | 84,085 |

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

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35 & Over | ALL |
|-----|----|-----|-------|-------|-------|-------|-------|-----------|-------|
| ALL | 0 | 0 | 0 | 0 | 96 | 1,206 | 3,948 | 2,654 | 7,904 |

TABLE 4A
BASIC SERVICE RETIREMENTS AS OF JUNE 30, 2009

| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55-59 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 60-64 | 204 | 157 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 362 |
| 65-69 | 49 | 210 | 107 | 1 | 0 | 0 | 1 | 0 | 0 | 368 |
| 70-74 | 7 | 64 | 202 | 71 | 1 | 0 | 0 | 0 | 0 | 345 |
| 75-79 | 0 | 0 | 100 | 133 | 54 | 1 | 1 | 0 | 0 | 289 |
| 80-84 | 0 | 1 | 8 | 57 | 120 | 32 | 2 | 0 | 0 | 220 |
| 85-89 | 0 | 0 | 2 | 4 | 40 | 53 | 10 | 0 | 0 | 109 |
| 90+ | 0 | 1 | 0 | 1 | 6 | 20 | 34 | 5 | 1 | 68 |
| ALL | 337 | 433 | 419 | 268 | 221 | 106 | 48 | 5 | 1 | 1,838 |

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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55-59 | 39,183 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39,183 |
| 60-64 | 44,439 | 39,065 | 0 | 11,775 | 0 | 0 | 0 | 0 | 0 | 42,018 |
| 65-69 | 44,837 | 37,742 | 35,904 | 27,269 | 0 | 0 | 53,170 | 0 | 0 | 38,166 |
| 70-74 | 59,029 | 46,943 | 46,040 | 33,795 | 64,022 | 0 | 0 | 0 | 0 | 44,003 |
| 75-79 | 0 | 0 | 54,463 | 41,073 | 31,143 | 58,219 | 56,772 | 0 | 0 | 43,964 |
| 80-84 | 0 | 38,163 | 49,150 | 48,975 | 33,528 | 23,693 | 67,487 | 0 | 0 | 36,997 |
| 85-89 | 0 | 0 | 33,842 | 45,118 | 29,817 | 33,040 | 25,783 | 0 | 0 | 31,650 |
| 90+ | 0 | 55,535 | 0 | 73,878 | 39,941 | 27,292 | 21,725 | 25,227 | 16,968 | 26,421 |
| ALL | 43,599 | 39,624 | 45,463 | 40,847 | 32,586 | 29,371 | 25,862 | 25,227 | 16,968 | 40,014 |

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|--------|--------|--------|--------|-------|-------|-------|-------|-----------|--------|
| ALL | 14,693 | 17,157 | 19,049 | 10,947 | 7,201 | 3,113 | 1,241 | 126 | 17 | 73,545 |

**TABLE 5A
BASIC DISABILITY RETIREMENTS AS OF JUNE 30, 2009**

| Age | Years Disabled | | | | | | | | | |
|-------|----------------|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
| <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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 55-59 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 60-64 | 5 | 1 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 11 |
| 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 | 6 | 2 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 13 |

AVERAGE ANNUAL BENEFIT

| Age | Years Disabled | | | | | | | | | |
|-------|----------------|--------|--------|--------|-------|-------|-------|-------|-----------|--------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
| <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 | 12,761 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12,761 |
| 55-59 | 0 | 44,939 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44,939 |
| 60-64 | 52,084 | 36,254 | 57,664 | 30,918 | 0 | 0 | 0 | 0 | 0 | 50,750 |
| 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 | 45,530 | 40,597 | 57,664 | 30,918 | 0 | 0 | 0 | 0 | 0 | 47,380 |

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| ALL | 273 | 81 | 231 | 31 | 0 | 0 | 0 | 0 | 0 | 616 |

TABLE 6A
BASIC SURVIVORS AS OF JUNE 30, 2009

| 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-54 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 55-59 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 5 |
| 60-64 | 0 | 4 | 5 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 14 |
| 65-69 | 0 | 5 | 7 | 9 | 5 | 1 | 0 | 0 | 0 | 0 | 27 |
| 70-74 | 1 | 3 | 10 | 19 | 6 | 4 | 2 | 0 | 0 | 0 | 45 |
| 75-79 | 0 | 1 | 0 | 14 | 19 | 4 | 2 | 1 | 0 | 0 | 41 |
| 80-84 | 0 | 0 | 1 | 3 | 27 | 20 | 3 | 0 | 0 | 0 | 54 |
| 85-89 | 0 | 0 | 0 | 3 | 8 | 22 | 10 | 1 | 0 | 0 | 44 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 6 | 17 | 4 | 0 | 0 | 27 |
| ALL | 2 | 16 | 24 | 50 | 68 | 58 | 34 | 7 | 0 | 0 | 259 |

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 | 11,317 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,317 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-54 | 0 | 22,731 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22,731 |
| 55-59 | 47,825 | 983 | 13,331 | 0 | 26,278 | 0 | 0 | 3,350 | 0 | 0 | 18,353 |
| 60-64 | 0 | 17,084 | 34,859 | 27,377 | 16,394 | 19,389 | 0 | 0 | 0 | 0 | 24,969 |
| 65-69 | 0 | 33,381 | 39,996 | 41,972 | 18,032 | 23,172 | 0 | 0 | 0 | 0 | 34,739 |
| 70-74 | 61,382 | 31,304 | 42,597 | 34,824 | 32,054 | 16,968 | 23,131 | 0 | 0 | 0 | 34,431 |
| 75-79 | 0 | 32,842 | 0 | 39,864 | 29,592 | 26,065 | 26,246 | 16,342 | 0 | 0 | 32,348 |
| 80-84 | 0 | 0 | 51,573 | 61,677 | 30,492 | 25,212 | 33,228 | 0 | 0 | 0 | 30,811 |
| 85-89 | 0 | 0 | 0 | 61,313 | 26,424 | 26,665 | 21,367 | 17,301 | 0 | 0 | 27,566 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 19,841 | 21,137 | 22,021 | 0 | 0 | 20,980 |
| ALL | 54,604 | 24,814 | 39,381 | 40,425 | 28,507 | 24,562 | 22,689 | 17,868 | 0 | 0 | 29,854 |

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

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-----------|-------|
| ALL | 109 | 397 | 945 | 2,021 | 1,938 | 1,425 | 771 | 125 | 0 | 7,732 |

TABLE 11A
BASIC DETERMINATION OF CONTRIBUTION SUFFICIENCY
AS OF JULY 1, 2009
(dollars in thousands)

| | Percent of Payroll | Dollar Amount |
|---|-----------------------|---------------|
| A. STATUTORY CONTRIBUTIONS - CHAPTER 354A | | |
| 1. Employee Contributions | 8.00% | \$ 665 |
| 2. Employer Contributions | 11.64% | 967 |
| 3. Supplemental Contribution | | |
| a. 1996 Legislation | 0.49% | 40 |
| b. 1997 Legislation | 1.12% | 93 |
| 4. Total | 21.25% | \$ 1,765 |
| B. REQUIRED CONTRIBUTIONS - CHAPTER 356 | | |
| 1. Normal Cost | | |
| a. Retirement Benefits | 11.17% | \$ 928 |
| b. Disability Benefits | 0.34% | 28 |
| c. Surviving Spouse and Child Benefits | 0.13% | 11 |
| d. Deferred Retirements | 1.88% | 156 |
| e. Total | 13.52% | \$ 1,123 |
| Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date: | | \$ 8,308 |

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2009

STATUTORY CONTRIBUTIONS

The statutory contributions for members and the employer are 8.00% and 11.64% of salary respectively.

PARTICIPANTS

Professional Educators first employed prior to July 1, 1978 by schools in the City of St. Paul or St. Paul Technical College (including charter schools) 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 dues and benefits. May include service earned while working outside of St. Paul Public Schools, previous St. Paul service, military service and governmental service.

ACCREDITED ST. PAUL SERVICE

Service earned as a licensed educator in the St. Paul Public Schools, in the St. Paul Technical College, or in certain charter schools, or as an employee of the Association. Also includes accredited service earned as a licensed teacher 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 percent of Average Salary for each year of Accredited Service.

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2009

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, and 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, augmented at 3.00 percent compounded annually from the age at retirement until age 65 and then actuarially reduced for each month the member is under age 65.

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.

DEFERRED RETIREMENT BENEFIT

Eligibility

5 years of Accredited Service.

Benefit

2.50 percent of Average Salary per year of Accredited Service augmented at 3.00 percent compounded annually from the age at termination until 55 and then augmented at 5.00 percent compounded annually from age 55 to the age at which benefits commence. The benefit is actuarially reduced for each month the member is under age 65 at benefit commencement.

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2009

ACTIVE SURVIVOR BENEFIT (Family Benefit)

Eligibility

Active member with three years of Accredited Service.

Benefit

- Children's Benefit: 25 percent of the maximum B.A. 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 B.A. 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.

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 (5.00 percent if terminated before May 16, 1989).

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.

SUMMARY OF BENEFIT PROVISIONS FOR BASIC MEMBERS AS OF JULY 1, 2009

BENEFIT INCREASES

Statutory Formula

2.00 percent compounded annually. Additional ad hoc increases are given in years when the five year time-weighted rate of return exceeds 8.50 percent. Increases occur on January 1st of each year. To be eligible, the member must have been receiving benefits for at least 12 months at the prior fiscal year end. Beneficiaries are entitled to the same benefit increases the member would have received.

Temporary Session Law Pilot Study Formula

For calendar years 2010 and 2011, the post-retirement adjustment is to be determined differently under a pilot project authorized by the Legislature. Increases will be equal to the Consumer Price Index urban wage earners and clerical workers all items index as reported by the Bureau of Labor Statistics within the United States Department of Labor each year as part of the determination of annual cost of living adjustments to recipients of federal old age, survivors, and disability insurance.

The cost-of-living adjustment is determined by dividing the most recent average of third quarter monthly index values by the same average third quarter index value from the previous year, subtracting the quantity one from the resulting quotient, and expressing the result as a percentage amount, which must be rounded to the nearest one-tenth of one percent. The final amount may not be a negative number and may not exceed 5.0 percent. Partial increases are granted for new retirees in the calendar year immediately preceding the increase on the basis of whole calendar quarters that the benefit recipient has been in pay status, calculated to the third decimal place.

SECTION 6
COORDINATED PLAN

TABLE 3B
COORDINATED ACTIVE MEMBERS AS OF JUNE 30, 2009

| Age | Years of Service | | | | | | | | ALL |
|-------|------------------|-----|-------|-------|-------|-------|-------|-----|-------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | |
| <25 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| 25-29 | 261 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 320 |
| 30-34 | 181 | 241 | 69 | 0 | 0 | 0 | 0 | 0 | 491 |
| 35-39 | 106 | 157 | 234 | 36 | 0 | 0 | 0 | 0 | 533 |
| 40-44 | 88 | 103 | 187 | 118 | 21 | 0 | 0 | 0 | 517 |
| 45-49 | 66 | 77 | 125 | 112 | 107 | 6 | 1 | 0 | 494 |
| 50-54 | 59 | 75 | 106 | 119 | 82 | 77 | 21 | 0 | 539 |
| 55-59 | 70 | 63 | 96 | 102 | 96 | 76 | 51 | 6 | 560 |
| 60-64 | 39 | 34 | 47 | 47 | 47 | 25 | 12 | 9 | 260 |
| 65+ | 25 | 5 | 11 | 2 | 9 | 5 | 0 | 1 | 58 |
| ALL | 969 | 814 | 875 | 536 | 362 | 189 | 85 | 16 | 3,846 |

AVERAGE ANNUAL EARNINGS

| Age | Years of Service | | | | | | | | ALL |
|-------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | |
| <25 | 21,192 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21,192 |
| 25-29 | 36,000 | 51,593 | 0 | 0 | 0 | 0 | 0 | 0 | 38,875 |
| 30-34 | 38,013 | 54,228 | 61,194 | 0 | 0 | 0 | 0 | 0 | 49,230 |
| 35-39 | 42,955 | 57,772 | 66,779 | 74,390 | 0 | 0 | 0 | 0 | 59,902 |
| 40-44 | 39,938 | 59,489 | 68,504 | 74,244 | 77,678 | 0 | 0 | 0 | 63,528 |
| 45-49 | 33,727 | 64,219 | 68,643 | 75,615 | 82,316 | 91,020 | 55,162 | 0 | 68,075 |
| 50-54 | 37,549 | 56,738 | 67,100 | 75,261 | 77,567 | 78,553 | 89,323 | 0 | 68,320 |
| 55-59 | 32,746 | 50,989 | 66,617 | 71,146 | 76,205 | 78,148 | 85,396 | 74,677 | 66,455 |
| 60-64 | 32,705 | 46,043 | 69,908 | 75,359 | 75,967 | 80,019 | 82,562 | 85,951 | 65,399 |
| 65+ | 10,303 | 16,972 | 60,732 | 77,905 | 65,257 | 79,063 | 0 | 83,015 | 38,482 |
| ALL | 35,272 | 55,741 | 67,087 | 74,288 | 78,102 | 78,993 | 85,610 | 81,540 | 59,765 |

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

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35 & Over | ALL |
|-----|--------|--------|--------|--------|--------|--------|-------|-----------|---------|
| ALL | 34,179 | 45,373 | 58,701 | 39,818 | 28,273 | 14,930 | 7,277 | 1,305 | 229,856 |

TABLE 4B
COORDINATED SERVICE RETIREMENTS AS OF JUNE 30, 2009

| 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 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 55-59 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 60-64 | 186 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 225 |
| 65-69 | 122 | 104 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 253 |
| 70-74 | 14 | 61 | 46 | 8 | 0 | 0 | 0 | 0 | 0 | 129 |
| 75-79 | 4 | 14 | 24 | 15 | 0 | 0 | 0 | 0 | 0 | 57 |
| 80-84 | 1 | 3 | 4 | 13 | 4 | 0 | 0 | 0 | 0 | 25 |
| 85-89 | 0 | 1 | 0 | 1 | 5 | 1 | 0 | 0 | 0 | 8 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| ALL | 405 | 223 | 101 | 37 | 9 | 2 | 0 | 0 | 0 | 777 |

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 | 0 | 2,400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,400 |
| 55-59 | 17,595 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17,595 |
| 60-64 | 18,448 | 20,384 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18,784 |
| 65-69 | 16,653 | 15,429 | 11,913 | 0 | 0 | 0 | 0 | 0 | 0 | 15,644 |
| 70-74 | 15,471 | 15,571 | 13,542 | 8,483 | 0 | 0 | 0 | 0 | 0 | 14,397 |
| 75-79 | 8,073 | 8,714 | 16,625 | 12,280 | 0 | 0 | 0 | 0 | 0 | 12,938 |
| 80-84 | 463 | 22,707 | 25,901 | 13,274 | 6,435 | 0 | 0 | 0 | 0 | 14,820 |
| 85-89 | 0 | 30,515 | 0 | 31,508 | 3,969 | 12,577 | 0 | 0 | 0 | 11,805 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 3,717 | 0 | 0 | 0 | 3,717 |
| ALL | 17,493 | 16,020 | 14,329 | 12,328 | 5,065 | 8,147 | 0 | 0 | 0 | 16,245 |

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-----------|--------|
| ALL | 7,085 | 3,572 | 1,447 | 456 | 46 | 16 | 0 | 0 | 0 | 12,622 |

**TABLE 5B
COORDINATED DISABILITY RETIREMENTS AS OF JUNE 30, 2009**

| Age | Years Disabled | | | | | | | | | |
|-------|----------------|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
| <45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45-49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 50-54 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 55-59 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 60-64 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 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 | 6 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |

AVERAGE ANNUAL BENEFIT

| Age | Years Disabled | | | | | | | | | |
|-------|----------------|--------|--------|-------|-------|-------|-------|-------|-----------|--------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
| <45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45-49 | 23,191 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,191 |
| 50-54 | 0 | 24,214 | 5,364 | 0 | 0 | 0 | 0 | 0 | 0 | 17,930 |
| 55-59 | 7,472 | 9,297 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,837 |
| 60-64 | 4,989 | 16,935 | 18,216 | 0 | 0 | 0 | 0 | 0 | 0 | 13,380 |
| 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 | 9,678 | 18,665 | 11,790 | 0 | 0 | 0 | 0 | 0 | 0 | 13,025 |

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|----|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| ALL | 58 | 75 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 156 |

TABLE 6B
COORDINATED SURVIVORS AS OF JUNE 30, 2009

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

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 | 510 | 9,553 | 2,315 | 0 | 0 | 0 | 0 | 0 | 0 | 6,136 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-54 | 20,823 | 9,568 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16,321 |
| 55-59 | 12,300 | 15,129 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,715 |
| 60-64 | 15,460 | 10,961 | 3,885 | 12,955 | 0 | 0 | 0 | 0 | 0 | 10,845 |
| 65-69 | 19,363 | 16,058 | 22,428 | 0 | 0 | 0 | 0 | 0 | 0 | 17,993 |
| 70-74 | 4,967 | 42,356 | 27,046 | 25,318 | 0 | 0 | 0 | 0 | 0 | 24,922 |
| 75-79 | 0 | 0 | 13,925 | 8,061 | 0 | 0 | 0 | 0 | 0 | 10,993 |
| 80-84 | 0 | 0 | 0 | 7,275 | 0 | 0 | 0 | 0 | 0 | 7,275 |
| 85-89 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ALL | 14,384 | 13,892 | 10,604 | 12,177 | 0 | 0 | 0 | 0 | 0 | 13,079 |

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

| Age | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| ALL | 115 | 194 | 74 | 61 | 0 | 0 | 0 | 0 | 0 | 445 |

TABLE 11B
COORDINATED DETERMINATION OF CONTRIBUTION SUFFICIENCY
AS OF JULY 1, 2009
(dollars in thousands)

| | Percent of Payroll | Dollar Amount |
|---|-----------------------|---------------|
| A. STATUTORY CONTRIBUTIONS - CHAPTER 354A | | |
| 1. Employee Contributions | 5.50% | \$ 13,443 |
| 2. Employer Contributions | 8.34% | \$ 20,384 |
| 3. Supplemental Contribution | | |
| a. 1996 Legislation | 0.49% | 1,190 |
| b. 1997 Legislation | 1.12% | 2,734 |
| 4. Total | 15.45% | \$ 37,751 |
| B. REQUIRED CONTRIBUTIONS - CHAPTER 356 | | |
| 1. Normal Cost | | |
| a. Retirement Benefits | 6.98% | \$ 17,052 |
| b. Disability Benefits | 0.13% | 309 |
| c. Surviving Spouse and Child Benefits | 0.16% | 395 |
| d. Deferred Retirements | 1.10% | 2,679 |
| e. Total | 8.37% | \$ 20,435 |
| Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date: | | \$ 244,418 |

SUMMARY OF BENEFIT PROVISIONS FOR COORDINATED MEMBERS AS OF JULY 1, 2009

STATUTORY CONTRIBUTIONS

The statutory contributions for members and the employer are 5.50% and 8.34% respectively.

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 Teachers' Retirement Fund Association are covered under the Coordinated Plan.

ALLOWABLE SERVICE

Service rendered while making employee contributions. 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 years available.

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 and age 66 for those hired on or after July 1, 1989. A Proportionate Retirement Annuity is available at Normal Retirement Age and one year of Allowable Service.

Benefit

1.70 percent of Average Salary for each year of Allowable Service.

SUMMARY OF BENEFIT PROVISIONS FOR COORDINATED MEMBERS AS OF JULY 1, 2009

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) 1.20 percent of Average Salary for each of the first ten years of Allowable Service plus 1.70 percent of Average Salary for each subsequent year of Allowable Service. 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 augmented at 3.00 percent compounded annually from the age at retirement until age 65 and then actuarially reduced for each month the member is under age 65.

DISABILITY RETIREMENT BENEFIT

Eligibility

Total and permanent disablement and three years of Allowable Service with at least two years of Allowable Service since the last interruption in service

Benefit

Normal retirement benefit payable for life without reduction for early commencement. The 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 age at termination until 55 and then augmented at 5.00 percent compounded annually from age 55 to the age at which benefits commence. For members hired after June 30, 2006, the benefit is augmented at 2.5% compounded annually from the age at termination to the age at which benefits commence.

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.

SUMMARY OF BENEFIT PROVISIONS FOR COORDINATED MEMBERS AS OF JULY 1, 2009

Benefit

Retirement benefit earned at the time of death reduced for 100 percent joint survivorship and payable at the time the member would have attained age 55 or immediately if the former member had attained age 55 at time of death. The benefit is subject to 50 percent of the applicable actuarial reduction for early commencement from normal retirement age.

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 (5.00 percent if terminated before May 16, 1989).

NORMAL FORM OF RETIREMENT BENEFITS

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

BENEFIT INCREASES

Statutory Formula

2.00 percent compounded annually. Additional ad hoc increases are given in years when the five year time-weighted rate of return exceeds 8.50 percent. Increases occur on January 1st of each year. To be eligible, the member must have been receiving benefits for at least 12 months at the prior fiscal year end. Beneficiaries are entitled to the same benefit increases the member would have received.

Temporary Session Law Pilot Study Formula

For calendar years 2010 and 2011, the post-retirement adjustment is to be determined differently under a pilot project authorized by the Legislature. Increases will be equal to the Consumer Price Index urban wage earners and clerical workers all items index as reported by the Bureau of Labor Statistics within the United States Department of Labor each year as part of the determination of annual cost of living adjustments to recipients of federal old age, survivors, and disability insurance.

The cost-of-living adjustment is determined by dividing the most recent average of third quarter monthly index values by the same average third quarter index value from the previous year, subtracting the quantity one from the resulting quotient, and expressing the result as a percentage amount, which must be rounded to the nearest one-tenth of one percent. The final amount may not be a negative number and may not exceed 5.0 percent. Partial increases are granted for new retirees in the calendar year immediately preceding the increase on the basis of whole calendar quarters that the benefit recipient has been in pay status, calculated to the third decimal place.

SECTION 7

GASB DISCLOSURES

TABLE 14
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) |
|--------------------------|-------------------------------|---------------------------------|-----------------------------|----------------------|--|--|
| 07/01/91 | \$ 326,357 | \$ 495,740 | \$ 169,383 | 65.83% | \$ 110,131 | 153.80% |
| 07/01/92 | 355,998 | 533,865 | 177,867 | 66.68% | 115,274 | 154.30% |
| 07/01/93 | 393,168 | 571,059 | 177,891 | 68.85% | 122,930 | 144.71% |
| 07/01/94 | 407,275 | 596,441 | 189,166 | 68.28% | 129,308 | 146.29% |
| 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 | 174.30% |
| 07/01/06 | 938,919 | 1,346,072 | 407,153 | 69.75% | 226,351 | 177.66% |
| 07/01/07 | 1,015,722 | 1,380,151 | 364,429 | 73.59% | 235,993 | 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% |

TABLE 15
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 [(A)*(B)]-(C) | Actual Employer Contributions ⁽¹⁾ | Percentage Contributed |
|--------------------|--|----------------------------|---------------------------------|---|--|------------------------|
| 1991 | 18.86% | \$ 110,131 | \$ 7,518 | \$ 13,253 | \$ 10,255 | 77.38% |
| 1992 | 18.87% | 115,274 | 7,821 | 13,931 | 10,489 | 75.29 |
| 1993 | 19.74% | 122,930 | 8,202 | 16,064 | 10,839 | 67.47 |
| 1994 | 18.68% | 129,308 | 9,100 | 15,055 | 11,736 | 77.95 |
| 1995 | 18.63% | 139,175 | 8,788 | 17,140 | 13,084 | 76.34 |
| 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 |

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

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

TABLE 16
DEVELOPMENT OF THE FUND
(dollars in thousands)

| <u>Year Ended June 30</u> | <u>Employer Contributions</u> | <u>Employee Contributions</u> | <u>Supplemental Contributions</u> | <u>Net Investment Return</u> | <u>Administrative Expenses</u> | <u>Benefit Payments</u> | <u>Actuarial Value of Assets EOY</u> |
|-------------------------------|-----------------------------------|-----------------------------------|---------------------------------------|----------------------------------|------------------------------------|-----------------------------|--|
| 2002 | - | - | - | - | - | - | \$ 899,572 |
| 2003 | \$ 19,186 | \$ 14,222 | \$ 4,184 | \$ 26,429 | \$ 499 | \$ 64,334 | 898,760 |
| 2004 | 20,378 | 14,308 | 3,393 | 31,417 | 516 | 68,880 | 898,860 |
| 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 |

TABLE 17
GASB SUPPLEMENTARY INFORMATION

| | |
|-------------------------------------|--|
| Valuation Date | July 1, 2009 |
| Actuarial Cost Method | Entry Age Normal |
| Amortization Method | Level Percent of Pay, Open, Assuming Five Percent Payroll Growth |
| Amortization Period | 25 year open period |
| Asset Valuation Method | 5-Year Smoothed Market |
| Actuarial Assumptions: | |
| Investment rate of return | 8.50% Pre-retirement and Post-retirement |
| Projected salary increases | 5.00% - 9.90%; age and service based |
| Cost-of-living adjustments | 2.00% * |
| Plan Membership: | |
| Active Members | 3,940 |
| Retirees and Beneficiaries | 2,933 |
| Terminated Vested Members | 1,823 |
| Other Non-Vested Terminated Members | <u>1,451</u> |
| Total | 10,147 |

**Cost-of-living adjustments at January 1, 2010 will be 0.00% due to the COLA Pilot Program.*

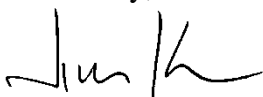
November 9, 2009

Mr. Phillip Kapler
St. Paul Teachers' Retirement Fund Association
1619 Dayton Avenue, Room 309
Saint Paul, MN 55104-6206

Dear Phil:

Enclosed are 16 bound copies and one unbound copy of the July 1, 2009 actuarial valuation report for the St. Paul Teachers' Retirement Fund Association. I look forward to presenting the results of the report to the Board of Trustees in December.

Sincerely,



W. James Koss

WJK:mrb
Enclosures

cc: Mr. Larry Martin, Executive Director,
Legislative Commission on Pensions and Retirement, (2 bound copies)
Mr. Tom Hanson, Commissioner,
Minnesota Department of Finance, (2 bound copies)
Legislative Reference Library, (2 bound copies)
Cathy Nagy, GRS