**Duluth Teachers' Retirement Fund Association**

*Actuarial Valuation and Review*
*as of July 1, 2009*

SEGAL

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*November 18, 2009*

*Mr. J. Michael Stoffel*
*Executive Director*
*Duluth Teachers' Retirement Fund Association*
*625 East Central Entrance*
*Duluth, Minnesota 55811*

*Dear Mr. Stoffel:*

*We are pleased to submit this Actuarial Valuation and Review as of July 1, 2009. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2010 and analyzes the preceding year's experience.*

*The census information on which our calculations were based was prepared by the Fund and the financial information was provided by the Fund. That assistance is gratefully acknowledged. The actuarial calculations were completed under our supervision.*

*This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in the valuation are consistent with those in the statute, and reasonably represent the experience of the plan.*

*Sincerely,*
*THE SEGAL COMPANY*
*By:*

*Thomas D. Levy, FSA, FCIA, MAAA, EA*
*Senior Vice President and Chief Actuary*

*Matthew A. Strom, FSA, MAAA, EA*
*Consulting Actuary*

## SECTION 1

### VALUATION SUMMARY



## SECTION 2

### VALUATION RESULTS



## SECTION 3

### SUPPLEMENTAL INFORMATION



## SECTION 4

### REPORTING INFORMATION

## Purpose

This report has been prepared by The Segal Company to present a valuation of the Duluth Teachers' Retirement Fund Association (DTRFA) as of July 1, 2009. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- Section 356.215 of the Minnesota Statutes, as amended in 2008;
- The benefit provisions of the Retirement Fund, as administered by the Legislative Commission on Pensions and Retirement;
- The data as provided and confirmed by the DTRFA staff;
- The characteristics of covered active members, inactive vested members, pensioners and beneficiaries as of July 1, 2009, provided by the Fund;
- The audited assets of the Fund as of June 30, 2009, provided by the Fund;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions regarding employee terminations, retirement, death, etc.

## Significant Issues in Valuation Year

- The actuarial accrued liability funded ratio based on the actuarial value of assets over the actuarial accrued liability as of July 1, 2009 is 76.55%, compared to 82.10% as of July 1, 2008. This ratio is a measure of funding status, and its history is a measure of funding progress, and is the ratio required to be reported under GASB 25.
- The statutory contribution rate under Chapter 354A is equal to 11.92% of payroll (which includes a direct State aid payment of $346,000 per year under Subdivision 3a), compared to the required contribution rate under Chapter 356 of 17.82% of payroll. Therefore, the contribution deficiency is 5.90% of payroll as of July 1, 2009. Last year's contribution rate deficiency was 4.00% of payroll. Each year there is a contribution deficiency leads to an increased deficiency in all future years. A direct State aid payment of $346,000 is made each year on October 1st, with the first payment made in 2008.
- For the year ended June 30, 2009, assets returned -28.30% on a market value basis. However, due to the gradual recognition of asset gains and losses under the actuarial smoothing method, the actuarial rate of return was -0.53%, compared to the assumed rate of 8.50%. As of July 1, 2009, the actuarial value of assets ($279.3 million) represented 155% of the market value ($179.9 million).
- The portion of deferred asset gains and losses recognized during the calculation of the July 1, 2009 actuarial value of assets resulted in a loss of $23,892,446.
- As indicated on page 4 of this report, the total investment loss not yet recognized as of June 30, 2009 is $99,322,359. These unrecognized losses will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent they are not offset by recognition of gains derived from future experience. This means that earning the assumed rate of investment return of 8.50% per year (net of investment expenses) on a market value basis will result in investment losses on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed 8.50% rate and all other actuarial assumptions are met, the contribution requirements would increase in each of the next few years.
- The unrecognized investment losses represent about 55% of the DTRFA market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the $99.3 million market losses is expected to have a significant impact on the Association's future funded ratio and actuarial contribution requirement. If the deferred losses were recognized immediately in the actuarial value assets, the funded percentage would decrease from 76.55% to 49.32%, and the actuarially determined contribution rate would increase from 17.82% to 28.91%.

- As mentioned above, the current method used to determine the actuarial value of assets yields an amount that is 155% of the market value of assets as of June 30, 2009. Guidelines in Actuarial Standard of Practice No. 44 (Selection and Use of Asset Valuation Methods for Pension Valuations) recommend that asset values fall within a reasonable range around the corresponding market value. The most common method is to constrain the actuarial value of assets to be no more than 120%, or less than 80%, of the current market value of assets. Current Minnesota Statutes do not include a corridor in the actuarial asset determination.
- As noted in our experience study report, the current 8.50% investment return assumption (as prescribed in Minnesota Statute 356.215, Subdivision 8) is at the high end of the reasonable range developed for this assumption. The 8.50% appears optimistic, and we recommend that a comprehensive review of the economic assumptions be performed when administratively feasible.
- While the -0.53% return on the actuarial value of assets caused a $26,140,717 loss in the unfunded actuarial liability, demographic and liability experience resulted in a $10,572,081 gain. A portion of this gain was due to salary experience that was less than expected. In addition, during the course of performing this year's valuation, some technical improvements were made to the programming, which had the effect of slightly lowering costs and contributed to the experience gain shown above.
- The actuarial valuation report as of June 30, 2009 is based on financial data as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
- There were no changes in plan provisions or actuarial assumptions since the prior valuation.

## Summary of Key Valuation Results

| | 2009 | 2008 |
|---|---|---|
| **Contributions (% of payroll) for plan year beginning July 1:** | | |
| Statutory – Chapter 354A | 11.92% | 11.87% |
| Required – Chapter 356 | 17.82% | 15.87% |
| Sufficiency/(Deficiency) | -5.90% | -4.00% |
| **Funding elements for plan year beginning July 1:** | | |
| Normal cost | $4,108,948 | $5,022,602 |
| Market value of assets | 179,933,200 | 271,616,844 |
| Actuarial value of assets (AVA) | 279,255,559 | 298,067,085 |
| Actuarial accrued liability (AAL) | 364,811,453 | 363,044,284 |
| Unfunded actuarial accrued liability | 85,555,894 | 64,977,199 |
| **Funded ratios as of July 1:** | | |
| Accrued Benefit Funded Ratio | 83.36% | 85.68% |
| Current assets (AVA) | $279,255,559 | $298,067,085 |
| Current benefit obligations | 335,015,635 | 347,872,563 |
| Projected Benefit Funded Ratio | 86.09% | 89.69% |
| Current and expected future assets | $337,012,744 | $356,902,863 |
| Current and expected future benefit obligations (Present Value of Benefits) | 391,449,065 | 397,909,525 |
| **GASB 25/27 information:** | | |
| Annual required employer contributions for year ending June 30 | $5,169,526 | $4,559,594 |
| Accrued Liability Funded Ratio (AVA/AAL) as of July 1 | 76.55% | 82.10% |
| Covered actual payroll | $51,019,447 | $51,711,330 |
| **Demographic data for plan year beginning July 1:** | | |
| Number of pensioners and beneficiaries | 1,264 | 1,243 |
| Number of vested terminated members. | 348 | 310 |
| Number of other non-vested terminated members | 750 | 676 |
| Number of active members | 1,016 | 1,140 |
| Total projected payroll* | $55,344,873 | $59,548,231 |
| Average annual compensation (actual compensation paid in prior year) | 47,150 | 44,843 |

**Projected payroll includes annualized pay for new hires and increases to current fiscal year.*

## A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, pensioners and beneficiaries.

The ratio of non-actives to actives has increased for the sixth year in a row. If this trend continues, the long-term funding of the Plan will be less sensitive to changes in contributions and more reliant on asset performance.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A through F.

*A historical perspective of how the member population has changed over the past several valuations can be seen in this chart.*

**CHART 1**

**Member Population: 2002 – 2009**

| Year Ended June 30 | Active Members | Vested Terminated Members* | Pensioners and Beneficiaries | Ratio of Non-Actives to Actives |
|---|---|---|---|---|
| 2002 | 1,276 | 305 | 1,085 | 1.09 |
| 2003 | 1,373 | 187 | 1,107 | 0.94 |
| 2004 | 1,178 | 312 | 1,137 | 1.23 |
| 2005 | 1,164 | 313 | 1,153 | 1.26 |
| 2006 | 1,174 | 312 | 1,190 | 1.28 |
| 2007 | 1,150 | 321 | 1,227 | 1.35 |
| 2008 | 1,140 | 310 | 1,243 | 1.36 |
| 2009 | 1,016 | 348 | 1,264 | 1.59 |

* *Excludes terminated members due a refund of employee contributions*

**Active Members**

Plan costs are affected by the age, years of service and payroll of active members. In this year's valuation, there were 1,016 active members with an average age of 47.6, average years of service of 12.8 years and average projected compensation of $54,473. The 1,140 active members in the prior valuation had an average age of 46.6, average service of 12.0 years and average projected compensation of $52,235.

**Inactive Members**

In this year's valuation, there were 348 members with a vested right to a deferred or immediate vested benefit.

In addition, there were 750 other non-vested terminated members entitled to a return of their employee contributions.

*These graphs show a distribution of active members by age and by years of service.*

**CHART 2**

**Distribution of Active Members by Age as of June 30, 2009**

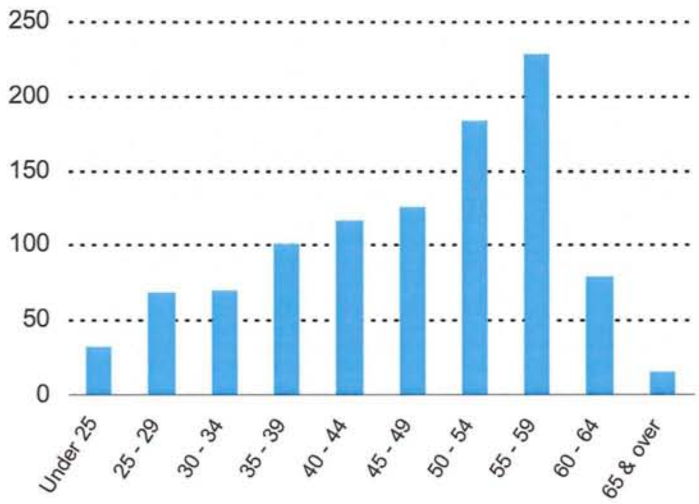
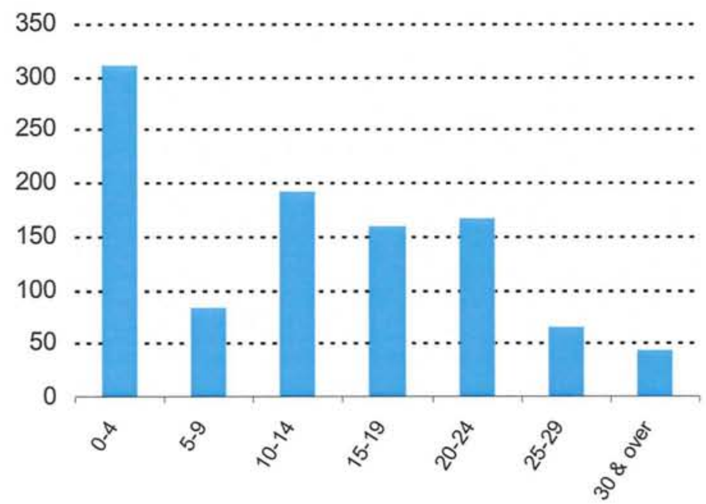



**CHART 3**

**Distribution of Active Members by Years of Service as of June 30, 2009**



**Pensioners and Beneficiaries**

As of June 30, 2009, 1,168 pensioners (including 17 disableds) and 96 beneficiaries were receiving total monthly benefits of $1,934,717. For comparison, in the previous valuation, there were 1,145 pensioners (including 17 disableds) and 98 beneficiaries receiving monthly benefits of $1,857,658.

*These graphs show a distribution of the current pensioners and beneficiaries based on their monthly amount and age, by type of pension.*

**CHART 4**

**Distribution of Pensioners and Beneficiaries by Type and by Monthly Amount as of June 30, 2009**

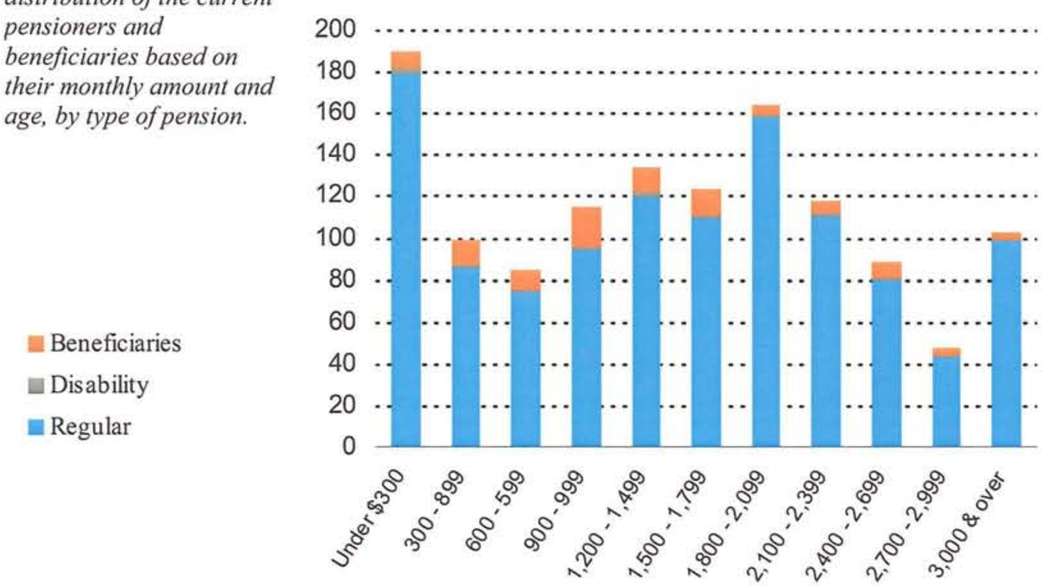
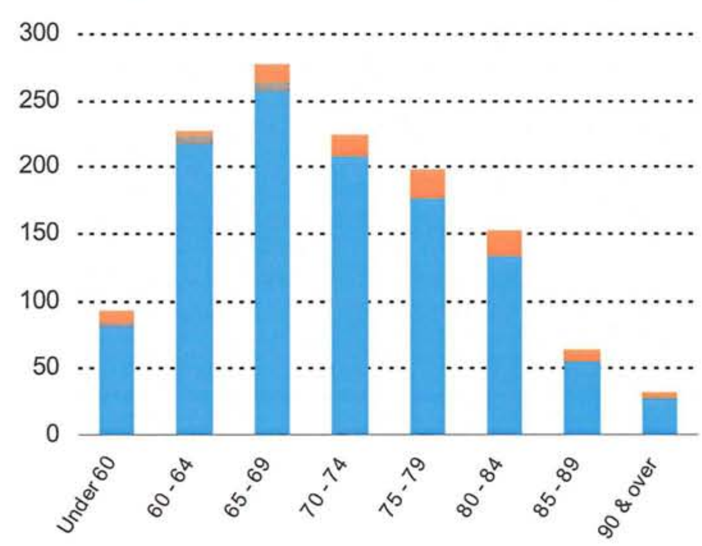



**CHART 5**

**Distribution of Pensioners and Beneficiaries by Type and by Age as of June 30, 2009**



**B. FINANCIAL INFORMATION**

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Minnesota Statutes require an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Both the actuarial value and market value of assets are representations of the Fund's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Fund's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

*The chart shows the determination of the actuarial value of assets as of the valuation date.*

**CHART 6**

**Determination of Actuarial Value of Assets for Years Ended June 30, 2009 and June 30, 2008**

| | | 2009 | | 2008 | |
|---|---|---|---|---|---|
| 1. Calculation of unrecognized return | Original Amount | % Not Recognized | | % Not Recognized | |
| (a) Year ended June 30, 2009 | -$96,764,564 | 80% | -$77,411,651 | | -- |
| (b) Year ended June 30, 2008 | -57,603,390 | 60% | -34,562,034 | 80% | -$46,082,712 |
| (c) Year ended June 30, 2007 | 28,491,208 | 40% | 11,396,483 | 60% | 17,094,725 |
| (d) Year ended June 30, 2006 | 6,274,217 | 20% | 1,254,843 | 40% | 2,509,687 |
| (e) Year ended June 30, 2005 | 140,297 | | | 20% | 28,059 |
| (f) Total unrecognized return | | | -$99,322,359 | | -$26,450,241 |
| 2. Market value of assets available for benefits | | | $179,933,200 | | $271,616,844 |
| 3. Less: Unrecognized return | | | -$99,322,359 | | -$26,450,241 |
| 4. Actuarial value of assets (Current Assets): (2) – (3) | | | $279,255,559 | | $298,067,085 |
| 5. Actuarial value as a percent of market value | | | 155.20% | | 109.74% |
| Total original amount for the last five plan years preceding the valuation date | | | -$119,462,232 | | -$2,221,839 |
| 20% of total original amount stated above | | | -$23,892,446 | | -$444,368 |

## C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions.

For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss is $15,568,636, of which a loss of $26,140,717 is from investments and a gain of $10,572,081 is from all other sources. The net experience variation from individual sources other than investments was 2.9% of the actuarial accrued liability, which includes technical improvements in the valuation program, age/service retirements, disability, mortality (pre and post-retirement), withdrawal and salary increases.

*This chart provides a summary of the actuarial experience during the past year.*

**CHART 6**

**Actuarial Experience for Year Ended June 30, 2009**

| | | |
|---|---|---|
| 1. | Net loss from investments on an actuarial value of assets basis | -$26,140,717 |
| 2. | Net gain from salary increases different than assumed | 2,064,073 |
| 3. | Net loss from post-retirement mortality experience | -360,443 |
| 4. | Net gain from other experience | 8,868,451 |
| 5. | Net experience loss: (1) + (2) + (3) + (4) | -$15,568,636 |

**D. INFORMATION REQUIRED BY THE GASB**

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded in accordance with the GASB actuarially required contributions. Section 4, Exhibit III presents a representation of this information for the Fund.

The other critical piece of information regarding the Fund's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

GASB requires that the actuarial value of assets be used to determine the funded ratio as shown in Section 4, Exhibit IV.

## EXHIBIT A

### Table of Plan Coverage

| Category | 2009 | 2008 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 1,016 | 1,140 | -10.9% |
| Average age | 47.6 | 46.6 | N/A |
| Average service | 12.8 | 12.0 | N/A |
| Total projected payroll* | $55,344,873 | $59,548,231 | -7.1% |
| Average projected* compensation | 54,473 | 52,235 | 4.3% |
| Total active vested members | 755 | 821 | -8.0% |
| **Vested terminated members** | 348 | 310 | 12.3% |
| **Retired participants:** | | | |
| Number in pay status | 1,151 | 1,128 | 2.0% |
| Average age | 71.6 | 71.3 | N/A |
| Average monthly benefit | $1,548 | $1,509 | 2.6% |
| **Disabled participants:** | | | |
| Number in pay status | 17 | 17 | 0.0% |
| Average age | 62.5 | 61.5 | N/A |
| Average monthly benefit | $1,198 | $1,177 | 1.8% |
| **Beneficiaries:** | | | |
| Number in pay status | 96 | 98 | -2.0% |
| Average age | 77.0 | 76.3 | N/A |
| Average monthly benefit | $1,377 | $1,256 | 9.6% |
| **Other non-vested terminated members** | 750 | 676 | 10.9% |

** Projected payroll includes annualized pay for new hires and increases to current fiscal year.*

## EXHIBIT B-1

### Members in Active Service as of June 30, 2009
### By Age, Years of Service, and Average Projected Compensation – Total

| | | Years of Service | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 25 | 32 | 32 | -- | -- | -- | -- | -- | -- |
| | $21,025 | $21,025 | -- | -- | -- | -- | -- | -- |
| 25 - 29 | 68 | 68 | -- | -- | -- | -- | -- | -- |
| | 22,318 | 22,318 | -- | -- | -- | -- | -- | -- |
| 30 - 34 | 70 | 47 | 12 | 11 | -- | -- | -- | -- |
| | 40,689 | 31,260 | $55,900 | $64,383 | -- | -- | -- | -- |
| 35 - 39 | 100 | 28 | 19 | 47 | 6 | -- | -- | -- |
| | 55,486 | 38,191 | 53,209 | 65,284 | $66,656 | -- | -- | -- |
| 40 - 44 | 116 | 24 | 19 | 41 | 28 | 4 | -- | -- |
| | 58,051 | 39,348 | 58,682 | 61,328 | 67,137 | $70,087 | -- | -- |
| 45 - 49 | 125 | 24 | 15 | 21 | 37 | 26 | 2 | -- |
| | 58,536 | 29,284 | 49,170 | 64,258 | 72,397 | 65,827 | $68,523 | -- |
| 50 - 54 | 183 | 27 | 9 | 34 | 33 | 56 | 19 | 5 |
| | 61,485 | 32,359 | 53,464 | 62,128 | 66,682 | 68,247 | 72,287 | $77,760 |
| 55 - 59 | 228 | 25 | 6 | 31 | 42 | 61 | 33 | 30 |
| | 63,812 | 23,056 | 43,537 | 63,337 | 65,058 | 72,549 | 71,536 | 74,314 |
| 60 - 64 | 79 | 27 | 1 | 5 | 10 | 17 | 4 | 15 |
| | 56,285 | 31,120 | 19,369 | 75,443 | 61,350 | 70,588 | 66,580 | 75,327 |
| 65 & Over | 15 | 8 | 2 | 1 | 2 | 2 | -- | -- |
| | 30,614 | 14,994 | 25,769 | 66,374 | 64,351 | 46,322 | -- | -- |
| Total | 1,016 | 310 | 83 | 191 | 158 | 166 | 58 | 50 |
| | $54,473 | $28,343 | $52,380 | $63,664 | $67,301 | $69,469 | $71,336 | $74,962 |

## EXHIBIT B-2

### Members in Active Service as of June 30, 2009
### By Age, Years of Service, and Average Projected Compensation – Old Plan

| | | Years of Service | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 25 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 25 - 29 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 30 - 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 35 - 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 40 - 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | 19 | -- | -- | -- | -- | 3 | 11 | 5 |
| | $74,088 | -- | -- | -- | -- | $66,982 | $74,357 | $77,760 |
| 55 - 59 | 54 | -- | -- | 1 | 2 | 2 | 21 | 28 |
| | 72,640 | -- | -- | $66,762 | $61,058 | 67,745 | 71,933 | 74,558 |
| 60 - 64 | 17 | -- | -- | -- | -- | 1 | 2 | 14 |
| | 73,839 | -- | -- | -- | -- | 109,208 | 62,441 | 72,941 |
| 65 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 90 | -- | -- | 1 | 2 | 6 | 34 | 47 |
| | $73,172 | -- | -- | $66,762 | $61,058 | $74,274 | $72,159 | $74,417 |

## EXHIBIT B-3

**Members in Active Service as of June 30, 2009**
**By Age, Years of Service, and Average Projected Compensation – New Plan Tier I**

| | | Years of Service | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **Under 5** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| Under 25 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 25 - 29 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 30 - 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 35 - 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 40 - 44 | 8 | -- | -- | 1 | 3 | 4 | -- | -- |
| | $60,544 | -- | -- | $19,333 | $61,558 | $70,087 | -- | -- |
| 45 - 49 | 47 | -- | -- | 3 | 16 | 26 | 2 | -- |
| | 70,448 | -- | -- | 65,327 | 79,157 | 65,827 | $68,523 | -- |
| 50 - 54 | 71 | -- | -- | 3 | 7 | 53 | 8 | -- |
| | 66,702 | -- | -- | 56,689 | 54,333 | 68,319 | 69,440 | -- |
| 55 - 59 | 94 | -- | 1 | 2 | 18 | 59 | 12 | 2 |
| | 69,699 | -- | $37,488 | 42,742 | 63,716 | 72,712 | 70,840 | $70,896 |
| 60 - 64 | 22 | -- | -- | -- | 3 | 16 | 2 | 1 |
| | 68,372 | -- | -- | -- | 54,408 | 68,174 | 70,718 | 108,727 |
| 65 & Over | 2 | -- | -- | -- | -- | 2 | -- | -- |
| | 48,322 | -- | -- | -- | -- | 48,322 | -- | -- |
| Total | 244 | -- | 1 | 9 | 47 | 160 | 24 | 3 |
| | $68,360 | -- | $37,488 | $53,318 | $66,843 | $69,289 | $70,170 | $83,507 |

**EXHIBIT B-4**

**Members in Active Service as of June 30, 2009**
**By Age, Years of Service, and Average Projected Compensation – New Plan Tier II**

| | | Years of Service | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 25 | 32 | 32 | -- | -- | -- | -- | -- | -- |
| | $21,025 | $21,025 | -- | -- | -- | -- | -- | -- |
| 25 - 29 | 68 | 68 | -- | -- | -- | -- | -- | -- |
| | 22,318 | 22,318 | -- | -- | -- | -- | -- | -- |
| 30 - 34 | 70 | 47 | 12 | 11 | -- | -- | -- | -- |
| | 40,689 | 31,260 | $55,900 | $64,383 | -- | -- | -- | -- |
| 35 - 39 | 100 | 28 | 19 | 47 | 6 | -- | -- | -- |
| | 55,486 | 38,191 | 53,209 | 65,284 | $66,656 | -- | -- | -- |
| 40 - 44 | 108 | 24 | 19 | 40 | 25 | -- | -- | -- |
| | 57,867 | 39,348 | 58,682 | 62,378 | 67,807 | -- | -- | -- |
| 45 - 49 | 78 | 24 | 15 | 18 | 21 | -- | -- | -- |
| | 51,359 | 29,284 | 49,170 | 64,080 | 67,246 | -- | -- | -- |
| 50 - 54 | 93 | 27 | 9 | 31 | 26 | -- | -- | -- |
| | 54,928 | 32,359 | 53,464 | 62,128 | 66,682 | -- | -- | -- |
| 55 - 59 | 80 | 25 | 5 | 28 | 22 | -- | -- | -- |
| | 50,935 | 23,056 | 44,747 | 64,686 | 66,519 | -- | -- | -- |
| 60 - 64 | 40 | 27 | 1 | 5 | 7 | -- | -- | -- |
| | 42,177 | 31,120 | 19,369 | 75,443 | 64,325 | -- | -- | -- |
| 65 & Over | 13 | 8 | 2 | 1 | 2 | -- | -- | -- |
| | 28,197 | 14,994 | 25,769 | 66,374 | 64,351 | -- | -- | -- |
| Total | 682 | 310 | 82 | 181 | 109 | -- | -- | -- |
| | $47,038 | $28,343 | $52,562 | $64,161 | $67,613 | -- | -- | -- |

**EXHIBIT C-1**
**Retired Participants as of June 30, 2009**
**By Age, Years Retired and Average Annual Benefit – Total**

| | | Years Retired | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 – 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | 1 | -- | -- | 1 | -- | -- | -- | -- |
| | $7,330 | -- | -- | $7,330 | -- | -- | -- | -- |
| 55 - 59 | 79 | 79 | -- | -- | -- | -- | -- | -- |
| | 24,918 | $24,918 | -- | -- | -- | -- | -- | -- |
| 60 - 64 | 216 | 126 | 86 | 3 | -- | 1 | -- | -- |
| | 22,082 | 23,890 | $20,227 | 1,775 | -- | $14,756 | -- | -- |
| 65 - 69 | 257 | 48 | 110 | 98 | 1 | -- | -- | -- |
| | 17,620 | 14,730 | 17,781 | 18,857 | $17,302 | -- | -- | -- |
| 70 - 74 | 207 | 4 | 33 | 90 | 80 | -- | -- | -- |
| | 17,465 | 13,265 | 16,379 | 18,149 | 17,354 | -- | -- | -- |
| 75 - 79 | 176 | -- | 4 | 27 | 101 | 44 | -- | -- |
| | 18,253 | -- | 15,857 | 13,424 | 21,403 | 14,202 | -- | -- |
| 80 - 84 | 132 | 1 | 1 | 2 | 38 | 72 | 18 | -- |
| | 17,210 | 14,743 | 1,116 | 24,451 | 18,963 | 18,705 | $7,756 | -- |
| 85 - 89 | 56 | -- | -- | -- | 1 | 26 | 25 | -- |
| | 14,232 | -- | -- | -- | 30,010 | 14,569 | 14,045 | -- |
| 90 & Over | 27 | -- | -- | -- | -- | 1 | 7 | 19 |
| | 10,584 | -- | -- | -- | -- | 1,479 | 8,968 | $11,659 |
| Total | 1,151 | 258 | 234 | 221 | 221 | 144 | 50 | 23 |
| | $18,641 | $22,301 | $18,378 | $17,672 | $19,538 | $16,435 | $11,070 | $11,244 |

**EXHIBIT C-2**
**Retired Participants as of June 30, 2009**
**By Age, Years Retired and Average Annual Benefit – Old Plan**

| | | Years Retired | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **Under 5** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 - 59 | 33 | 33 | -- | -- | -- | -- | -- | -- |
| | $22,388 | $22,388 | -- | -- | -- | -- | -- | -- |
| 60 - 64 | 58 | 27 | 29 | 1 | -- | 1 | -- | -- |
| | 15,691 | 17,045 | $14,854 | $4,361 | -- | $14,756 | -- | -- |
| 65 - 69 | 84 | 12 | 29 | 43 | -- | -- | -- | -- |
| | 12,682 | 13,884 | 12,932 | 12,179 | -- | -- | -- | -- |
| 70 - 74 | 85 | 1 | 2 | 44 | 38 | -- | -- | -- |
| | 14,756 | 22,017 | 29,897 | 12,361 | $16,541 | -- | -- | -- |
| 75 - 79 | 49 | -- | -- | 4 | 26 | 19 | -- | -- |
| | 13,745 | -- | -- | 6,955 | 17,905 | 9,483 | -- | -- |
| 80 - 84 | 45 | -- | -- | -- | 1 | 26 | 18 | -- |
| | 11,885 | -- | -- | -- | 4,601 | 15,024 | $7,756 | -- |
| 85 - 89 | 36 | -- | -- | -- | -- | 13 | 19 | 4 |
| | 12,371 | -- | -- | -- | -- | 13,364 | 12,344 | $9,271 |
| 90 & Over | 27 | -- | -- | -- | -- | 1 | 7 | 19 |
| | 10,584 | -- | -- | -- | -- | 1,479 | 8,968 | 11,659 |
| Total | 417 | 73 | 60 | 92 | 65 | 60 | 44 | 23 |
| | $14,168 | $19,009 | $14,426 | $11,954 | $16,903 | $12,679 | $9,930 | $11,244 |

**EXHIBIT C-3**
**Retired Participants as of June 30, 2009**
**By Age, Years Retired and Average Annual Benefit – New Plan Tier I**

| | | Years Retired | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **Under 5** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 - 59 | 40 | 40 | -- | -- | -- | -- | -- | -- |
| | $29,806 | $29,806 | -- | -- | -- | -- | -- | -- |
| 60 - 64 | 143 | 89 | 53 | 1 | -- | -- | -- | -- |
| | 26,343 | 27,854 | $24,291 | $594 | -- | -- | -- | -- |
| 65 - 69 | 127 | 13 | 65 | 48 | 1 | -- | -- | -- |
| | 24,043 | 25,849 | 22,235 | 26,142 | $17,302 | -- | -- | -- |
| 70 - 74 | 71 | 1 | 5 | 27 | 38 | -- | -- | -- |
| | 24,390 | 28,230 | 27,089 | 30,252 | 19,767 | -- | -- | -- |
| 75 - 79 | 83 | -- | -- | 2 | 57 | 24 | -- | -- |
| | 21,479 | -- | -- | 18,007 | 23,504 | $16,960 | -- | -- |
| 80 - 84 | 47 | 1 | -- | -- | 6 | 40 | -- | -- |
| | 21,958 | 14,743 | -- | -- | 24,817 | 21,710 | -- | -- |
| 85 - 89 | 16 | -- | -- | -- | -- | 10 | 6 | -- |
| | 17,809 | -- | -- | -- | -- | 16,836 | $19,430 | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 527 | 144 | 123 | 78 | 102 | 74 | 6 | -- |
| | $24,372 | $28,127 | $23,318 | $27,029 | $22,129 | $19,511 | $19,430 | -- |

## EXHIBIT C-4
### Retired Participants as of June 30, 2009
### By Age, Years Retired and Average Annual Benefit – New Plan Tier II

| | | Years Retired | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | 1 | -- | -- | 1 | -- | -- | -- | -- |
| | $7,330 | -- | -- | $7,330 | -- | -- | -- | -- |
| 55 - 59 | 6 | 6 | -- | -- | -- | -- | -- | -- |
| | 6,248 | $6,248 | -- | -- | -- | -- | -- | -- |
| 60 - 64 | 15 | 10 | 4 | 1 | -- | -- | -- | -- |
| | 6,178 | 7,095 | $5,339 | 369 | -- | -- | -- | -- |
| 65 - 69 | 46 | 23 | 16 | 7 | -- | -- | -- | -- |
| | 8,903 | 8,887 | 8,479 | 9,926 | -- | -- | -- | -- |
| 70 - 74 | 51 | 2 | 26 | 19 | 4 | -- | -- | -- |
| | 12,339 | 1,407 | 13,280 | 14,354 | $2,123 | -- | -- | -- |
| 75 - 79 | 44 | -- | 4 | 21 | 18 | 1 | -- | -- |
| | 17,185 | -- | 15,857 | 14,220 | 19,802 | $37,679 | -- | -- |
| 80 - 84 | 40 | -- | 1 | 2 | 31 | 6 | -- | -- |
| | 17,621 | -- | 1,116 | 24,451 | 18,293 | 14,624 | -- | -- |
| 85 - 89 | 4 | -- | -- | -- | 1 | 3 | -- | -- |
| | 16,678 | -- | -- | -- | 30,010 | 12,234 | -- | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 207 | 41 | 51 | 51 | 54 | 10 | -- | -- |
| | $13,063 | $7,699 | $11,114 | $13,675 | $17,815 | $16,213 | -- | -- |

**EXHIBIT D-1**
**Disabled Members as of June 30, 2009**
**By Age, Years Disabled and Average Annual Benefit – Total**

| | | Years Disabled | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | 1 | -- | 1 | -- | -- | -- | -- | -- |
| | $14,871 | -- | $14,871 | -- | -- | -- | -- | -- |
| 55 - 59 | 1 | 1 | -- | -- | -- | -- | -- | -- |
| | 3,752 | $3,752 | -- | -- | -- | -- | -- | -- |
| 60 - 64 | 8 | 4 | -- | 2 | 1 | 1 | -- | -- |
| | 19,214 | 19,217 | -- | $8,261 | $28,595 | $3,550 | -- | -- |
| 65 - 69 | 7 | -- | 5 | 1 | 1 | -- | -- | -- |
| | 14,332 | -- | $15,816 | 1,700 | 19,544 | -- | -- | -- |
| 70 - 74 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 75 - 79 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 80 - 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 85 - 89 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 17 | 5 | 6 | 3 | 2 | 1 | -- | -- |
| | $14,381 | $16,122 | $15,658 | $6,074 | $24,069 | $3,550 | -- | -- |

## EXHIBIT D-2
### Disabled Members as of June 30, 2009
### By Age, Years Disabled and Average Annual Benefit – Old Plan

| | Years Disabled | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 - 59 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 60 - 64 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 65 - 69 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 70 - 74 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 75 - 79 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 80 - 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 85 - 89 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |

**EXHIBIT D-3**
**Disabled Members as of June 30, 2009**
**By Age, Years Disabled and Average Annual Benefit – New Plan Tier I**

| | | Years Disabled | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 - 59 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 60 - 64 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 65 - 69 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 70 - 74 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 75 - 79 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 80 - 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 85 - 89 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |

**EXHIBIT D-4**
**Disabled Members as of June 30, 2009**
**By Age, Years Disabled and Average Annual Benefit – New Plan Tier II**

| | | Years Disabled | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **Under 5** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | 1 | -- | 1 | -- | -- | -- | -- | -- |
| | $14,871 | -- | $14,871 | -- | -- | -- | -- | -- |
| 55 - 59 | 1 | 1 | -- | -- | -- | -- | -- | -- |
| | 3,752 | $3,752 | -- | -- | -- | -- | -- | -- |
| 60 - 64 | 8 | 4 | -- | 2 | 1 | 1 | -- | -- |
| | 19,214 | 19,217 | -- | $8,261 | $28,595 | $3,550 | -- | -- |
| 65 - 69 | 7 | -- | 5 | 1 | 1 | -- | -- | -- |
| | 14,332 | -- | $15,816 | 1,700 | 19,544 | -- | -- | -- |
| 70 - 74 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 75 - 79 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 80 - 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 85 - 89 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 17 | 5 | 6 | 3 | 2 | 1 | -- | -- |
| | $14,381 | $16,122 | $15,658 | $6,074 | $24,069 | $3,550 | -- | -- |

**EXHIBIT E-1**
**Beneficiaries as of June 30, 2009**
**By Age, Years Since Death and Average Annual Benefit – Total**

| | | Years Since Member's Retirement Date | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **Under 5** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | 2 | -- | -- | -- | 2 | -- | -- | -- |
| | $11,468 | -- | -- | -- | $11,468 | -- | -- | -- |
| 50 - 54 | 2 | 1 | 1 | -- | -- | -- | -- | -- |
| | 8,267 | $16,003 | $532 | -- | -- | -- | -- | -- |
| 55 - 59 | 3 | 1 | -- | -- | 1 | 1 | -- | -- |
| | 8,292 | 3,872 | -- | -- | 15,434 | $5,571 | -- | -- |
| 60 - 64 | 3 | -- | 1 | -- | 2 | -- | -- | -- |
| | 17,575 | -- | 6,687 | -- | 23,019 | -- | -- | -- |
| 65 - 69 | 11 | -- | 3 | 7 | 1 | -- | -- | -- |
| | 22,099 | -- | 14,732 | 25,409 | 21,037 | -- | -- | -- |
| 70 - 74 | 18 | -- | -- | 5 | 11 | 2 | -- | -- |
| | 20,182 | -- | -- | 18,714 | 22,225 | 12,618 | -- | -- |
| 75 - 79 | 20 | -- | -- | 1 | 7 | 12 | -- | -- |
| | 16,885 | -- | -- | 18,635 | 20,613 | 14,565 | -- | -- |
| 80 - 84 | 18 | -- | -- | -- | 5 | 6 | 7 | -- |
| | 17,150 | -- | -- | -- | 19,747 | 14,521 | $17,548 | -- |
| 85 - 89 | 11 | -- | -- | -- | 1 | 4 | 5 | 1 |
| | 11,440 | -- | -- | -- | 2,071 | 14,657 | 11,255 | $8,871 |
| 90 & Over | 6 | -- | -- | -- | -- | -- | 1 | 5 |
| | 9,121 | -- | -- | -- | -- | -- | 7,146 | 9,516 |
| Total | 94 | 2 | 5 | 13 | 30 | 25 | 13 | 6 |
| | $16,494 | $9,937 | $10,282 | $22,313 | $19,834 | $14,053 | $14,327 | $9,408 |

**EXHIBIT E-2**
**Beneficiaries as of June 30, 2009**
**By Age, Years Since Death and Average Annual Benefit – Old Plan**

| | | Years Since Member's Retirement Date | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 - 59 | 1 | -- | -- | -- | -- | 1 | -- | -- |
| | $5,571 | -- | -- | -- | -- | $5,571 | -- | -- |
| 60 - 64 | 2 | -- | -- | -- | 2 | -- | -- | -- |
| | 23,019 | -- | -- | -- | $23,019 | -- | -- | -- |
| 65 - 69 | 4 | -- | 2 | 1 | 1 | -- | -- | -- |
| | 15,700 | -- | $9,914 | $21,937 | 21,037 | -- | -- | -- |
| 70 - 74 | 5 | -- | -- | 2 | 2 | 1 | -- | -- |
| | 14,471 | -- | -- | 10,438 | 20,830 | 9,819 | -- | -- |
| 75 - 79 | 3 | -- | -- | -- | 2 | 1 | -- | -- |
| | 12,387 | -- | -- | -- | 8,215 | 20,729 | -- | -- |
| 80 - 84 | 6 | -- | -- | -- | -- | 2 | 4 | -- |
| | 15,050 | -- | -- | -- | -- | 8,821 | $18,164 | -- |
| 85 - 89 | 5 | -- | -- | -- | -- | 2 | 2 | 1 |
| | 14,469 | -- | -- | -- | -- | 22,312 | 9,424 | $8,871 |
| 90 & Over | 6 | -- | -- | -- | -- | -- | 1 | 5 |
| | 9,121 | -- | -- | -- | -- | -- | 7,146 | 9,516 |
| Total | 32 | -- | 2 | 3 | 7 | 7 | 7 | 6 |
| | $13,790 | -- | $9,914 | $14,271 | $17,881 | $14,055 | $14,093 | $9,408 |

## EXHIBIT E-3
## Beneficiaries as of June 30, 2009
## By Age, Years Since Death and Average Annual Benefit – New Plan Tier I

| | Years Since Member's Retirement Date | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age | Total | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | 2 | -- | -- | -- | 2 | -- | -- | -- |
| | $11,468 | -- | -- | -- | $11,468 | -- | -- | -- |
| 50 - 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 - 59 | 1 | -- | -- | -- | 1 | -- | -- | -- |
| | 15,434 | -- | -- | -- | 15,434 | -- | -- | -- |
| 60 - 64 | 1 | -- | 1 | -- | -- | -- | -- | -- |
| | 6,687 | -- | $6,687 | -- | -- | -- | -- | -- |
| 65 - 69 | 4 | -- | -- | 4 | -- | -- | -- | -- |
| | 33,132 | -- | -- | $33,132 | -- | -- | -- | -- |
| 70 - 74 | 10 | -- | -- | 1 | 8 | 1 | -- | -- |
| | 22,419 | -- | -- | 33,517 | 21,907 | $15,418 | -- | -- |
| 75 - 79 | 11 | -- | -- | -- | 1 | 10 | -- | -- |
| | 16,467 | -- | -- | -- | 28,608 | 15,253 | -- | -- |
| 80 - 84 | 8 | -- | -- | -- | 1 | 4 | 3 | -- |
| | 16,388 | -- | -- | -- | 11,439 | 17,371 | $16,726 | -- |
| 85 - 89 | 6 | -- | -- | -- | 1 | 2 | 3 | -- |
| | 8,917 | -- | -- | -- | 2,071 | 7,001 | 12,475 | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 43 | -- | 1 | 5 | 14 | 17 | 6 | -- |
| | $17,849 | -- | $6,687 | $33,209 | $18,268 | $14,790 | $14,601 | -- |

**EXHIBIT E-4**
**Beneficiaries as of June 30, 2009**
**By Age, Years Since Death and Average Annual Benefit – New Plan Tier II**

| | | Years Since Member's Retirement Date | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **Under 5** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| Under 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 - 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 - 54 | 2 | 1 | 1 | -- | -- | -- | -- | -- |
| | $8,267 | $16,003 | $532 | -- | -- | -- | -- | -- |
| 55 - 59 | 1 | 1 | -- | -- | -- | -- | -- | -- |
| | 3,872 | 3,872 | -- | -- | -- | -- | -- | -- |
| 60 - 64 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 65 - 69 | 3 | -- | 1 | 2 | -- | -- | -- | -- |
| | 15,922 | -- | 24,367 | $11,699 | -- | -- | -- | -- |
| 70 - 74 | 3 | -- | -- | 2 | 1 | -- | -- | -- |
| | 22,244 | -- | -- | 19,590 | $27,552 | -- | -- | -- |
| 75 - 79 | 6 | -- | -- | 1 | 4 | 1 | -- | -- |
| | 19,900 | -- | -- | 18,635 | 24,812 | $1,514 | -- | -- |
| 80 - 84 | 4 | -- | -- | -- | 4 | -- | -- | -- |
| | 21,824 | -- | -- | -- | 21,824 | -- | -- | -- |
| 85 - 89 | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| 90 & Over | -- | -- | -- | -- | -- | -- | -- | -- |
| | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 19 | 2 | 2 | 5 | 9 | 1 | -- | -- |
| | $17,979 | $9,937 | $12,450 | $16,242 | $23,789 | $1,514 | -- | -- |

## EXHIBIT F
## Reconciliation of Member Data

| | | Active Members | Vested Terminated Members | Other Non-Vested Terminated Members | Retired Participants | Disabled Members | Beneficiaries | Total |
|---|---|---|---|---|---|---|---|---|
| A. | Number as of June 30, 2008 | 1,140 | 310 | 676 | 1,128 | 17 | 98 | 3,369 |
| B. | Additions | 99 | 1 | 17 | 1 | -- | 1 | 119 |
| C. | Deletions: | | | | | | | -- |
| | 1. Retirements | -36 | -10 | -1 | 47 | -- | -- | -- |
| | 2. Disability | -- | -- | -- | -- | -- | -- | -- |
| | 3. Died with beneficiary | -- | -1 | -- | -8 | -- | 8 | -1 |
| | 4. Died without beneficiary | -- | -1 | -- | -17 | -- | -3 | -21 |
| | 5. Terminated – deferred | -56 | 57 | -1 | -- | -- | -- | -- |
| | 6. Terminated – other non-vested | -148 | -7 | 155 | -- | -- | -- | -- |
| | 7. Refunds | -- | -- | -24 | -- | -- | -- | -24 |
| | 8. Rehired as active | 17 | -1 | -16 | -- | -- | -- | -- |
| | 9. Contributions Written Off | -- | -- | -56 | -- | -- | -- | -56 |
| | 10. Expired Benefits | -- | -- | -- | -- | -- | -8 | -8 |
| D. | Data Adjustments | -- | -- | -- | -- | -- | -- | -- |
| E. | Number as of June 30, 2009 | 1,016 | 348 | 750 | 1,151 | 17 | 96 | 3,378 |

**EXHIBIT G**

**Schedule of Pensioners and Beneficiaries Added to and Removed from Rolls**

| Fiscal Year | Added to Rolls: Number | Added to Rolls: Annual Allowances | Removed from Rolls: Number | Removed from Rolls: Annual Allowances | Rolls – End of Year: Number | Rolls – End of Year: Annual Allowances | % Increase in Annual Allowances | Average Annual Allowances |
|---|---|---|---|---|---|---|---|---|
| 1999 | 61 | 1,263,965 | 32 | 251,972 | 939 | 10,926,102 | 12.1 | 11,636 |
| 2000 | 90 | 2,519,000 | 33 | 633,465 | 996 | 12,359,721 | 13.1 | 12,409 |
| 2001 | 88 | 2,458,668 | 26 | 547,671 | 1,058 | 14,341,500 | 16.0 | 13,555 |
| 2002 | 56 | 1,817,094 | 29 | 800,165 | 1,085 | 15,968,396 | 11.3 | 14,717 |
| 2003 | 41 | 1,191,364 | 19 | 574,944 | 1,107 | 16,767,603 | 5.0 | 15,147 |
| 2004 | 56 | 1,203,279 | 26 | 303,856 | 1,137 | 18,240,239 | 8.8 | 16,042 |
| 2005 | 64 | 1,373,262 | 48 | 603,930 | 1,153 | 18,936,633 | 3.8 | 16,424 |
| 2006 | 66 | 1,359,258 | 29 | 312,333 | 1,190 | 19,901,351 | 5.1 | 16,724 |
| 2007 | 62 | 1,426,530 | 25 | 345,683 | 1,227 | 20,978,509 | 5.4 | 17,097 |
| 2008 | 58 | 1,196,895 | 42 | 525,597 | 1,243 | 22,291,901 | 6.3 | 17,934 |
| 2009 | 55 | 1,201,849 | 35 | 424,843 | 1,263 | 23,605,292 | 5.9 | 18,690 |

## EXHIBIT H

### Statement of Change in Net Plan Assets for Year Ended June 30, 2009

| | | | Market Value |
|---|---|---|---|
| A. | Assets available at beginning of year (BOY) | | $271,616,844 |
| B. | Additions: | | |
| | 1. | Member contributions | $2,927,260 |
| | 2. | Employer contributions | 2,954,026 |
| | 3. | Direct State aid | 346,000 |
| | 4. | Investment income | 5,984,792 |
| | 5. | Investment expenses | -1,289,965 |
| | 6. | Other | 19,769 |
| | 7. | Net appreciation/(depreciation) | -79,125,807 |
| | 8. | Total Additions | -$68,183,925 |
| C. | Operating Expenses: | | |
| | 1. | Service retirements | $20,943,537 |
| | 2. | Disability benefits | 217,325 |
| | 3. | Survivor benefits | 1,543,301 |
| | 4. | Refunds | 290,392 |
| | 5. | Administrative expenses | 505,164 |
| | 6. | Total operating expenses | $23,499,719 |
| D. | Other changes in reserves | | -- |
| E. | Assets available at end of year (EOY) | | $179,933,200 |
| F. | Determination of current year unrecognized asset return | | |
| | 1. | Average balance: | |
| | | (a) Assets available at BOY: (A) | $271,616,844 |
| | | (b) Assets available at EOY: (E) | 179,933,200 |
| | | (c) Average balance [(a) + (b) – Net Investment Income] / 2<br>[Net Investment Income: (B.4) + (B.5) + (B.6) + (B.7)] | 262,980,628 |
| | 2. | Expected return: 8.50% x (F.1.(c)) | 22,353,353 |
| | 3. | Actual return: (B.4) + (B.5) + (B.6) + (B.7) | -74,411,211 |
| | 4. | Current year unrecognized asset return: (F.3) – (F.2) | -$96,764,564 |

## EXHIBIT I

## Statement of Plan Net Assets for Year Ended June 30, 2009

| | Market Value |
|---|---|
| **Assets in trust** | |
| Cash, equivalents, short-term securities | $13,081,672 |
| Investments: | |
| Fixed income | $75,884,144 |
| Equity and other | 96,822,307 |
| Real estate and mortgages | -- |
| Invested securities lending collateral | 8,352,760 |
| Other assets | 317,612 |
| Total assets in trust | $194,458,495 |
| **Assets receivable** | $2,518,927 |
| **Liabilities** | |
| Invested securities lending collateral | -$10,871,599 |
| Stock and bond purchases, and accounts payable | -6,172,623 |
| Total liabilities | -$17,044,222 |
| **Net assets held in Trust for Pension Benefits** | |
| Member reserves | $33,285,446 |
| Other reserves | 146,647,754 |
| **Total Assets Available for Benefits** | $179,933,200 |
| **Net Assets at Market Value** | $179,933,200 |

## EXHIBIT J

### Actuarial Value of Assets Calculation History Through June 30, 2009

| Year Ended June 30 | Employer Contributions* | Employee Contributions | Net Investment Return** | Administrative Expenses | Benefit Payments | Actuarial Value of Assets at End of Year |
|---|---|---|---|---|---|---|
| 2002 | - - | - - | - - | - - | - - | $280,515,000 |
| 2003 | $2,933,000 | $3,299,000 | $9,174,000 | $445,000 | $17,009,000 | 278,467,000 |
| 2004 | 2,826,730 | 2,991,801 | 10,518,561 | 448,704 | 17,406,336 | 276,949,052 |
| 2005 | 2,845,684 | 2,924,264 | 4,566,718 | 436,507 | 18,368,390 | 268,480,821 |
| 2006 | 2,867,299 | 3,030,418 | 16,291,585 | 424,840 | 19,319,594 | 270,925,689 |
| 2007 | 2,940,697 | 2,978,435 | 32,143,488 | 456,987 | 20,266,573 | 288,264,749 |
| 2008 | 2,994,086 | 2,954,062 | 25,980,797 | 487,944 | 21,638,665 | 298,067,085 |
| 2009 | 3,300,026 | 2,927,260 | -1,539,093 | 505,164 | 22,994,555 | 279,255,559 |

* *Includes direct State aid payments for years ending 2009 and later.*

** *Net Investment Return on an Actuarial Value of Assets basis, and net of investment fees.*

## EXHIBIT K

### Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2009

| | | |
|---|---|---|
| 1. Unfunded/(Overfunded) actuarial accrued liability at beginning of year | | $64,977,199 |
| 2. Normal cost at beginning of year, including expenses | | 5,510,546 |
| 3. Total contributions | | 6,227,286 |
| 4. Interest | | |
| (a) For whole year on (1) + (2) | $5,991,459 | |
| (b) For half year on (3) | 264,660 | |
| (c) Total interest: (4a) – (4b) | | 5,726,799 |
| 5. Expected unfunded/(overfunded) actuarial accrued liability: (1) + (2) – (3) + (4(c)) | | $69,987,258 |
| 6. Changes due to (gain)/loss from: | | |
| (a) Investments | $26,140,717 | |
| (b) Demographics* | -10,572,081 | |
| (c) Total changes due to (gain)/loss | | 15,568,636 |
| 7. Unfunded/(Overfunded) actuarial accrued liability at end of year | | $85,555,894 |

** Includes (gain)/loss due to age/service retirements, disability, mortality (pre and post-retirement), withdrawal and salary increases.*

## EXHIBIT L
### Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

**Assumptions or Actuarial Assumptions:** The estimates on which the cost of the Fund is calculated including:

(a) Investment return — the rate of investment yield that the Fund will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

**Normal Cost:** The amount of contributions required to fund the benefit allocated to the current year of service.

**Actuarial Accrued Liability For Actives:** The equivalent of the accumulated normal costs allocated to the years before the valuation date.

**Actuarial Accrued Liability For Pensioners:** The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

**Unfunded Actuarial Accrued Liability:** The extent to which the actuarial accrued liability of the Fund exceeds the assets of the Fund. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

**Amortization of the Unfunded Actuarial Accrued Liability:** Payments made over a period of years equal in value to the Fund's unfunded actuarial accrued liability.

**Investment Return:** The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

**Accrued Benefit Funded Ratio:** A current year funded status that measures the percent of benefits covered by Current Assets. This ratio is based on benefits earned to the valuation date (accrued service) and includes future salary increases to retirement. The liability for these benefits is defined as the Current Benefit Obligations. The Accrued Benefit Funded Ratio is calculated as the Actuarial Value of Assets (Current Assets) divided by the Current Benefit Obligations.

**Projected Benefit Funded Ratio:** A projected funded status that measures contribution sufficiency/deficiency, which is based on a present value of all plan benefits for the lifetime of all plan members. The liability for these benefits is defined as the Current and Expected Future Benefit Obligations, or Present Value of Benefits. The Current and Expected Future Assets are determined as the sum of the Actuarial Value of Assets (Current Assets), the Present Value of Expected Future Statutory Supplemental Contributions and the Present Value of Future Normal Costs. The Projected Benefit Funded Ratio is calculated as the Current and Expected Future Assets divided by the Current and Expected Future Benefit Obligations. If the ratio is equal to or more than 100%, there is a contribution sufficiency, and if it is less than 100% there is a contribution deficiency.

## EXHIBIT I
## Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

| | | | |
|---|---|---|---|
| 1. | Pensioners as of the valuation date (including 98 beneficiaries in pay status) | | 1,264 |
| 2. | Members inactive during year ended June 30, 2009 with vested rights | | 348 |
| 3. | Members active during the year ended June 30, 2009 | | 1,016 |
| | Fully vested | 755 | |
| | Not vested | 261 | |
| 4. | Other non-vested terminated members as of June 30, 2009 | | 750 |

**EXHIBIT I (continued)**

**Summary of Actuarial Valuation Results**

| | Actuarial Present Value of Projected Benefits | Actuarial Present Value of Future Normal Costs | Actuarial Accrued Liability |
|---|---|---|---|
| **A. Determination of Actuarial Accrued Liability** | | | |
| 1. Active members: | | | |
| (a) Retirement benefits | $139,634,789 | $21,740,347 | $117,894,442 |
| (b) Disability benefits | 1,613,677 | 478,772 | 1,134,905 |
| (c) Death benefits | 2,188,958 | 588,958 | 1,600,000 |
| (d) Withdrawal benefits | 5,212,940 | 3,829,535 | 1,383,405 |
| (e) Total | $148,650,364 | $26,637,612 | $122,012,752 |
| 2. Vested terminated members | $15,175,898 | -- | $15,175,898 |
| 3. Other non-vested terminated members | 884,522 | -- | 884,522 |
| 4. Annuitants | 226,738,281 | -- | 226,738,281 |
| 5. Total | $391,449,065 | $26,637,612 | $364,811,453 |
| **B. Determination of Unfunded Actuarial Accrued Liability** | | | |
| 1. Actuarial Accrued Liability | | | $364,811,453 |
| 2. Actuarial Value of Assets | | | 279,255,559 |
| 3. Unfunded Actuarial Accrued Liability: (1) – (2) | | | $85,555,894 |
| **C. Determination of Supplemental Contribution Rate** | | | |
| 1. Present value of future payrolls through the amortization date of June 30, 2035 | | | $895,661,745 |
| 2. Supplemental contribution rate: (B.3) / (C.1) | | | 9.55% |

## EXHIBIT II
### Actuarial Balance Sheet

| | | | | |
|---|---|---|---|---|
| A. Current Assets | | | | $279,255,559 |
| B. Expected Future Assets | | | | |
| 1. Present Value of Expected Future Statutory Supplemental Contributions | | | | $31,119,573 |
| 2. Present Value of Future Normal Costs | | | | 26,637,612 |
| 3. Total Expected Future Assets | | | | $57,757,185 |
| C. Total Current and Expected Future Assets | | | | $337,012,744 |
| D. Current Benefit Obligations | | **Non-Vested** | **Vested** | **Total** |
| 1. Benefit recipients: | | | | |
| | (a) Retirement annuities | - - | $210,976,680 | $210,976,680 |
| | (b) Disability benefits | - - | 3,005,190 | 3,005,190 |
| | (c) Beneficiaries | - - | 12,756,411 | 12,756,411 |
| 2. Vested terminated members | | - - | 15,175,898 | 15,175,898 |
| 3. Other non-vested terminated members | | - - | 884,522 | 884,522 |
| 4. Active members: | | | | |
| | (a) Retirement benefits | $292,021 | $86,684,963 | $86,976,984 |
| | (b) Disability benefits | 3,787 | 862,518 | 866,305 |
| | (c) Death benefits | 7,214 | 1,252,044 | 1,259,258 |
| | (d) Withdrawal benefits | 116,344 | 2,998,043 | 3,114,387 |
| 5. Total Current Benefit Obligations | | $419,366 | $334,596,269 | $335,015,635 |
| E. Expected Future Benefit Obligations | | | | $56,433,430 |
| F. Total Current and Expected Future Benefit Obligations - Present Value of Benefits: (D.5 + E) | | | | $391,449,065 |
| G. Current Unfunded Actuarial Liability (D.5 - A) | | | | $55,760,076 |
| H. Current and Future Unfunded Actuarial Liability (F - C) | | | | $54,436,321 |

## EXHIBIT III

### Supplementary Information Required by the GASB – Schedule of Employer Contributions

| Plan Year Ended June 30 | Actuarially Required Contribution Rate (a) | Actual Covered Payroll (b) | Actual Member Contributions (c) | Annual Required Employer Contributions [(a) x (b)] – (c) = (d) | Actual Employer Contributions* (e) | Percentage Contributed (e) / (d) |
|---|---|---|---|---|---|---|
| 1991 | 10.70% | $42,297,000 | $2,043,000 | $2,483,000 | $2,449,000 | 98.63% |
| 1992 | 11.09 | 42,884,000 | 2,124,000 | 2,632,000 | 2,483,000 | 94.34 |
| 1993 | 11.42 | 43,282,000 | 2,126,000 | 2,817,000 | 2,506,000 | 88.96 |
| 1994 | 10.21 | 43,109,000 | 2,230,000 | 2,171,000 | 2,496,000 | 114.97 |
| 1995 | 10.36 | 46,528,000 | 2,144,000 | 2,676,000 | 2,694,000 | 100.67 |
| 1996 | 13.23 | 44,870,000 | 2,570,000 | 3,366,000 | 2,598,000 | 77.18 |
| 1997 | 13.60 | 46,770,000 | 2,644,000 | 3,717,000 | 2,708,000 | 72.85 |
| 1998 | 12.87 | 47,064,000 | 2,664,000 | 3,393,000 | 3,211,000 | 94.64 |
| 1999 | 10.24 | 52,176,000 | 3,118,000 | 2,225,000 | 3,507,000 | 157.62 |
| 2000 | 9.16 | 52,270,000 | 3,152,000 | 1,636,000 | 3,512,000 | 214.67 |
| 2001 | 8.51 | 51,996,000 | 3,141,000 | 1,284,000 | 3,497,000 | 272.35 |
| 2002 | 7.49 | 51,054,000 | 3,275,000 | 549,000 | 3,442,000 | 626.96 |
| 2003** | 9.85 | 50,656,000 | 3,299,000 | 1,691,000 | 2,933,000 | 173.45 |
| 2004 | 11.27 | 48,820,898 | 2,991,801 | 2,510,314 | 2,826,730 | 112.60 |
| 2005 | 12.11 | 49,148,256 | 2,924,264 | 3,027,590 | 2,845,684 | 93.99 |
| 2006 | 14.16 | 49,521,572 | 3,030,418 | 3,981,837 | 2,867,299 | 72.01 |
| 2007 | 15.19 | 50,789,240 | 2,978,435 | 4,736,451 | 2,940,697 | 62.09 |
| 2008 | 14.53 | 51,711,330 | 2,954,062 | 4,559,594 | 2,994,086 | 65.67 |
| 2009 | 15.87 | 51,019,447 | 2,927,260 | 5,169,526 | 3,300,026 | 63.84 |

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

** *Actuarially Required Contribution Rate prior to change in actuarial assumptions and plan provisions is 7.62%.*

## EXHIBIT IV

### Supplementary Information Required by the GASB – Schedule of Funding Progress

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded/ (Overfunded) AAL (UAAL) (b) – (a) | Funded Ratio (a) / (b) | Actual Covered Payroll (Previous FY) (c) | UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c) |
|---|---|---|---|---|---|---|
| 07/01/1991 | $105,087,000 | $117,582,000 | $12,495,000 | 89.37% | $42,297,000 | 29.54% |
| 07/01/1992 | 116,492,000 | 124,140,000 | 7,648,000 | 93.84 | 42,884,000 | 17.83 |
| 07/01/1993 | 130,856,000 | 132,700,000 | 1,844,000 | 98.61 | 43,282,000 | 4.26 |
| 07/01/1994 | 133,632,000 | 137,042,000 | 3,410,000 | 97.51 | 43,109,000 | 7.91 |
| 07/01/1995 | 142,852,000 | 173,965,000 | 31,113,000 | 82.12 | 46,528,000 | 66.87 |
| 07/01/1996 | 157,007,000 | 189,518,000 | 32,511,000 | 82.85 | 44,870,000 | 72.46 |
| 07/01/1997 | 170,059,000 | 197,820,000 | 27,761,000 | 85.97 | 46,770,000 | 59.36 |
| 07/01/1998 | 187,482,000 | 197,078,000 | 9,596,000 | 95.13 | 47,064,000 | 20.39 |
| 07/01/1999 | 218,699,000 | 220,540,000 | 1,841,000 | 99.17 | 52,176,000 | 3.53 |
| 07/01/2000 | 251,007,000 | 241,899,000 | -9,108,000 | 103.77 | 52,270,000 | -17.42 |
| 07/01/2001 | 273,618,000 | 254,255,000 | -19,363,000 | 107.62 | 51,996,000 | -37.24 |
| 07/01/2002 | 280,515,000 | 279,428,000 | -1,087,000 | 100.39 | 51,054,000 | -2.13 |
| 07/01/2003 | 278,467,000 | 291,109,000 | 12,642,000 | 95.66 | 50,656,000 | 24.96 |
| 07/01/2004 | 276,949,052 | 301,704,445 | 24,755,393 | 91.79 | 48,820,898 | 50.71 |
| 07/01/2005 | 268,480,821 | 310,923,929 | 42,443,108 | 86.35 | 49,148,256 | 86.36 |
| 07/01/2006 | 270,925,689 | 322,229,167 | 51,303,478 | 84.08 | 49,521,572 | 103.60 |
| 07/01/2007 | 288,264,749 | 332,216,981 | 43,952,232 | 86.77 | 50,789,240 | 86.54 |
| 07/01/2008 | 298,067,085 | 363,044,284 | 64,977,199 | 82.10 | 51,711,330 | 125.65 |
| 07/01/2009 | 279,255,559 | 364,811,453 | 85,555,894 | 76.55 | 51,019,447 | 167.69 |

## Exhibit V
### Determination of Contribution Sufficiency – Total

| | July 1, 2009 | |
|---|---|---|
| **A. Statutory Contributions – Chapter 354A** | **Percent of Payroll** | **Dollar Amount** |
| 1. Member contributions | 5.50% | $3,043,968 |
| 2. Employer contributions | 5.79% | 3,204,468 |
| 3. Direct State aid* | 0.63% | 346,000 |
| 4. Total | 11.92% | $6,594,436 |
| **B. Required Contributions – Chapter 356** | **Percent of Payroll** | **Dollar Amount** |
| 1. Normal Cost: | | |
| (a) Retirement | 6.22% | $3,444,520 |
| (b) Disability | 0.12% | 69,123 |
| (c) Death | 0.15% | 80,861 |
| (d) Withdrawal | 0.93% | 514,444 |
| (e) Total | 7.42% | $4,108,948 |
| 2. Supplemental contribution amortization | 9.55% | $5,285,435 |
| 3. Allowance for administrative expenses | 0.85% | 470,431 |
| 4. Total | 17.82% | $9,864,814 |
| **C. Contribution Sufficiency / (Deficiency): (A.4) – (B.4)** | -5.90% | -$3,270,378 |
| **Projected annual payroll for fiscal year beginning on the valuation date**** | | $55,344,873 |

** A direct State aid payment of $346,000 is made each year on October 1st, with the first payment made in 2008.*
*** Projected payroll includes annualized pay for new hires and increases to current fiscal year.*

## Exhibit VI
## Determination of Contribution Sufficiency – Old Plan

| | July 1, 2009 | |
|---|---|---|
| **A. Statutory Contributions – Chapter 354A** | **Percent of Payroll** | **Dollar Amount** |
| 1. Member contributions | 5.50% | $362,203 |
| 2. Employer contributions | 5.79% | 381,301 |
| 3. Direct State aid* | 0.63% | 41,171 |
| 4. Total | 11.92% | $784,675 |

| **B. Required Contributions – Chapter 356** | **Percent of Payroll** | **Dollar Amount** |
|---|---|---|
| 1. Normal Cost: | | |
| (a) Retirement | 5.77% | $380,082 |
| (b) Disability | 0.11% | 7,536 |
| (c) Death | 0.14% | 9,463 |
| (d) Withdrawal | 1.20% | 79,243 |
| (e) Total | 7.22% | $476,324 |

| | |
|---|---|
| **Projected annual payroll for fiscal year beginning on the valuation date**** | $6,585,515 |

** $41,171 represents a pro-rata portion of the $346,000 direct State aid payment, allocated by projected payroll.*
*** Projected payroll includes annualized pay for new hires and increases to current fiscal year.*

## Exhibit VII

## Determination of Contribution Sufficiency – New Plan Tier I

| | July 1, 2009 | |
|---|---|---|
| **A. Statutory Contributions – Chapter 354A** | **Percent of Payroll** | **Dollar Amount** |
| 1. Member contributions | 5.50% | $905,067 |
| 2. Employer contributions | 5.79% | 952,789 |
| 3. Direct State aid* | 0.63% | 102,877 |
| 4. Total | 11.92% | $1,960,733 |

| **B. Required Contributions – Chapter 356** | **Percent of Payroll** | **Dollar Amount** |
|---|---|---|
| 1. Normal Cost: | | |
| (a) Retirement | 6.40% | $1,053,243 |
| (b) Disability | 0.13% | 21,624 |
| (c) Death | 0.14% | 22,251 |
| (d) Withdrawal | 0.96% | 157,753 |
| (e) Total | 7.63% | $1,254,871 |

| | |
|---|---|
| **Projected annual payroll for fiscal year beginning on the valuation date**** | $16,455,767 |

** $102,877 represents a pro-rata portion of the $346,000 direct State aid payment, allocated by projected payroll.*
*** Projected payroll includes annualized pay for new hires and increases to current fiscal year.*

## Exhibit VIII

## Determination of Contribution Sufficiency – New Plan Tier II

| | July 1, 2009 | |
|---|---|---|
| **A. Statutory Contributions – Chapter 354A** | **Percent of Payroll** | **Dollar Amount** |
| 5. Member contributions | 5.50% | $1,776,698 |
| 6. Employer contributions | 5.79% | 1,870,378 |
| 7. Direct State aid* | 0.63% | 201,952 |
| 8. Total | 11.92% | $3,849,028 |

| **B. Required Contributions – Chapter 356** | **Percent of Payroll** | **Dollar Amount** |
|---|---|---|
| 2. Normal Cost: | | |
| (a) Retirement | 6.23% | $2,011,195 |
| (b) Disability | 0.12% | 39,963 |
| (c) Death | 0.15% | 49,147 |
| (d) Withdrawal | 0.86% | 277,448 |
| (e) Total | 7.36% | $2,377,753 |

| | |
|---|---|
| **Projected annual payroll for fiscal year beginning on the valuation date**** | $32,303,591 |

** $201,952 represents a pro-rata portion of the $346,000 direct State aid payment, allocated by projected payroll.*
*** Projected payroll includes annualized pay for new hires and increases to current fiscal year.*

## EXHIBIT IX

### Supplementary Information Required by the GASB

| | |
|---|---|
| **Valuation date** | July 1, 2009 |
| **Actuarial cost method** | Entry Age Normal |
| **Amortization method** | Level percentage of payroll, assuming payroll increases of 4.50% per annum |
| **Remaining amortization period** | 26 years remaining as of July 1, 2009 |
| **Asset valuation method** | Market Value, adjusted for amortization obligations receivable at the end of each fiscal year, less a percentage of the Unrecognized Asset Return determined at the close of each of the four preceding fiscal years. Unrecognized Asset Return is the difference between actual net return on Market Value of Assets and the asset return expected during that fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year). |
| **Actuarial assumptions:** | |
| Investment rate of return: | |
| Pre-retirement | 8.50% per annum |
| Post-retirement | 6.50% per annum |
| Projected salary increases | Select and ultimate rates by age, with ultimate rates of 3.50% - 7.00% |
| **Plan membership:** | |
| Pensioners and beneficiaries receiving benefits | 1,264 |
| Terminated vested members entitled to, but not yet receiving benefits | 348 |
| Other terminated non-vested members | 750 |
| Active members | 1,016 |
| Total | 3,378 |

## EXHIBIT X
### Actuarial Assumptions and Actuarial Cost Method

**Mortality Rates:**

*Healthy:*

Male: 1994 Group Annuity Mortality Table for Males set back 2 years

Female: 1994 Group Annuity Mortality Table for Females set back 2 years

Rates for sample ages are shown on the next page.

*Disabled:*

Male and Female tables apply:

| Age | Table |
|---|---|
| 54 and younger | Disabled Eligible for Social Security Disability – ERISA Sec. 4044 for 2006 |
| 55 – 64 | Graded from table for ages 54 and younger to table for ages 65 and older |
| 65 and older | 1994 Group Annuity Mortality Table set back 2 years |

**Summary of Rates:** Shown below for selected ages:

| | Rate (%) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Mortality | | | | Retirement | | Ultimate Rate of Salary Increases |
| Age | Male | Female | Withdrawal | Disability | Old | New | |
| 20 | 0.05% | 0.03% | 3.50% | - - | - - | - - | 6.90% |
| 25 | 0.06 | 0.03 | 3.25 | - - | - - | - - | 6.75 |
| 30 | 0.08 | 0.03 | 3.00 | - - | - - | - - | 6.50 |
| 35 | 0.08 | 0.04 | 2.75 | 0.01% | - - | - - | 6.25 |
| 40 | 0.09 | 0.06 | 2.50 | 0.03 | - - | - - | 6.00 |
| 45 | 0.14 | 0.09 | 2.00 | 0.06 | - - | - - | 5.50 |
| 50 | 0.21 | 0.12 | 1.50 | 0.10 | - - | - - | 5.00 |
| 55 | 0.36 | 0.19 | 0.75 | 0.15 | 15.00% | 15.00% | 4.50 |
| 60 | 0.63 | 0.34 | - - | 0.21 | 15.00 | 15.00 | 4.00 |
| 65 | 1.15 | 0.67 | - - | - - | 40.00 | 40.00 | 3.50 |
| 67* | 1.45 | 0.86 | - - | - - | 100.00 | 100.00 | - - |

* Last Retirement Age

| | |
|---|---|
| **Retirement Rates:** | Rates are shown for selected ages on the previous page. In addition, 40% of the members are assumed to retire each year that they are eligible for Rule of 90. |
| **Withdrawal Rates:** | Select and ultimate rates are based on recent plan experience. Ultimate rates after the third year are shown for sample ages on the previous page. Select rates are as follows: |
| First year: | 60.00% |
| Second year: | 20.00% |
| Third year: | 15.00% |
| **Retirement Age for Inactive Vested Members:** | 60 |
| **Unknown Data for Members:** | Same as those exhibited by members with similar known characteristics. |
| **Percent Married:** | 80% of members are assumed to be married. |
| **Age of Spouse:** | Females three years younger than males. |
| **Net Investment Return:** | |
| *Pre-Retirement:* | 8.50% per annum |
| *Post-Retirement:* | 6.50% per annum |
| **Salary Increases:** | Reported salary for prior fiscal year, with new hires annualized, increased to current fiscal year and annually for each future year according to the ultimate rate table on the prior page. This table includes a 10-year select period. For service from hire through 7 completed years, an 8.00% salary increase is assumed. With 8 completed years, a 7.25% increase is assumed. With 9 completed years, a 6.50% increase is assumed. |
| **Administrative Expenses:** | Prior year administrative expenses expressed as percentage of prior year projected payroll. |
| **Allowance for Combined Service Annuity:** | 10% load on liabilities for active members and 25% load on benefits for deferred vested participants in a Combined Service arrangement as of the valuation date. |

| | |
|---|---|
| **Return of Contributions:** | All employees withdrawing after becoming eligible for a deferred benefit were assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit. |
| **Special Consideration:** | Annual 2.00% increase for annuitants is accounted for by using a 6.50% post-retirement interest rate. Members in the Old Plan are assumed to receive their retirement benefits from the New Plan. Members who terminated under the Old Plan are assumed to take refund under the New Plan. |
| | Married Members assumed to elect subsidized joint and survivor form of annuity as follows: |
| Males: | 30% elect 50% J&S option |
| | 40% elect 100% J&S option |
| Females: | 15% elect 50% J&S option |
| | 15% elect 100% J&S option |
| **Asset Valuation Method:** | Market Value, adjusted for amortization obligations receivable at the end of each fiscal year, less a percentage of the Unrecognized Asset Return determined at the close of each of the four preceding fiscal years. Unrecognized Asset Return is the difference between actual net return on Market Value of Assets and the asset return expected during the fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year). Each year's Unrecognized Asset Return is being amortized over 5 years on a straight-line basis. |
| **Actuarial Cost Method:** | Entry Age Normal Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are expressed as a level percentage of payroll, with Normal Cost determined as if the current benefit accrual rate had always been in effect. |
| **Payment on the Unfunded Actuarial Accrued Liability:** | A level percentage of payroll each year to the statutory amortization date assuming payroll increases of 4.50% per annum. If the Actuarial Value of Assets exceeds the Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll. |

## EXHIBIT XI
### Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

| | |
|---|---|
| **Plan Year:** | July 1 through June 30 |
| **Eligibility (Old Plan and New Plan):** | Licensed full-time and part-time teachers who are employed by the Duluth Public Schools other than a charter school teacher, and eligible licensed staff at Lake Superior College, who have elected to retain their membership in the DTRFA. Also includes any employees of the Retirement Fund Association. Employees in the Old Plan are those first hired before July 1, 1981. Employees in the New Plan, Tier I are those first hired on or after July 1, 1981. Employees in the New Plan, Tier II are those first hired on or after July 1, 1989. |
| **Credited Service (Old Plan and New Plan):** | Earned while employed in a covered position and employee contributions are deducted. May also include extended or mid-career leaves of absence, medical leave of absence, sabbatical leave, and military service. Credit for less than a full year is granted on a prorated basis. |
| **Salary (Old Plan and New Plan):** | Total Compensation. Excludes any lump-sum annual leave or sick leave payments and lump-sum payments at time of separation from employment. |
| **Average Salary (Old Plan):** | Average of the five highest years of annual salary. |
| **Average Salary (New Plan):** | Average of the five highest successive years of salary. Average Salary is based on all Credited Service if less than five years. |

**Retirement (Old Plan):**

<u>*Normal Retirement:*</u>

| | |
|---|---|
| *Age Requirement:* | Age 60, and |
| *Service Requirement:* | 10 years of Credited Service |
| *Amount:* | 1.45% of Average Salary for each year of Credited Service |

<u>*Early Retirement:*</u>

| | |
|---|---|
| *Age Requirement:* | Age 55, and |
| *Service Requirement:* | 10 years of Credited Service, or |
| *Age/Service Requirement:* | The sum of age and Credited Service equals 90, if earlier. |
| *Amount:* | 1.45% of Average Salary for each year of Credited Service with reduction of 0.25% for each month the member is under age 60. No reduction if the sum of age and years of Credited Service equals 90. |
| *Form of Payment:* | Life annuity. Actuarially equivalent options are:<br>(a) 5, 10, 15 or 20-year certain and life, or<br>(b) 50% or 100% joint and survivor with bounce back feature without additional reduction.<br>(c) Other equivalent options approved by the Board. |
| *Benefit Increases:* | <u>Annual Cost-of-Living Adjustment (COLA):</u><br>Increase all benefits by 2.00% each January 1. An additional increase will be allowed when the 5-year average rate of return of the fund exceeds the Fund's assumed rate of return, currently 8.50%. To be eligible for a COLA, a retiree or beneficiary must have received a payment for at least 12 months as of the adjustment date. |

**Note: A member who is eligible for normal or early benefits under the Old Plan may instead receive a benefit under New Plan Tier I or New Plan Tier II if it is greater than the benefit from the Old Plan.**

**Retirement (New Plan Tier I):**

<u>*Normal Retirement:*</u>

*Age/Service Requirement:* Members first hired before July 1, 1989:

(a) Age 65, or

(b) Age 62 and 30 years of Credited Service.

*Amount:* 1.20% of Average Salary for each of the first ten years of Credited Service and 1.70% of Average Salary for each subsequent year.

<u>*Early Retirement:*</u>

*Age/Service Requirement:*

(a) Age 55 and three years of Credited Service, or

(b) Any age with 30 years of Credited Service, or

(c) The sum of age and Credited Service equals 90.

*Amount:* 1.20% of Average Salary for the first ten years of Credited Service and 1.70% of Average Salary for each subsequent year with reduction of 0.25% for each month the member is under Normal Retirement Age. No reduction if the sum of age and years of Credited Service equals 90.

*Form of Payment:* Life annuity. Actuarially equivalent options are:

(a) 5, 10, 15 or 20-year certain and life, or

(b) 50% or 100% joint and survivor with bounce back feature without additional reduction.

(c) A larger life annuity before age 62 and reduced thereafter.

*Benefit Increases:* Annual Cost-of-Living Adjustment (COLA):

Increase all benefits by 2.00% each January 1. An additional increase will be allowed when the 5-year average rate of return of the fund exceeds the Fund's assumed rate of return, currently 8.50%. To be eligible for a COLA, a retiree or beneficiary must have received a payment for at least 12 months as of the adjustment date.

*Note:* ***A member who is eligible for normal or early benefits under the New Plan Tier I may instead receive a benefit under New Plan Tier II if it is greater than the benefit from New Plan Tier I.***

**Retirement (New Plan Tier II):**

*Normal Retirement:*

*Age/Service Requirement:* Members first hired after June 30, 1989:

The greater of age 65 or the age eligible for full Social Security retirement benefits but not higher than age 66.

*Amount:* 1.70% of Average Salary for each year of Credited Service.

*Early Retirement:*

*Age/Service Requirement:* Age 55 and three years of Credited Service.

*Amount:* 1.70% of Average Salary for each year of Credited Service with augmentation to the age eligible for full social security retirement benefits at 3.00% per year and actuarial reduction for each month the member is under the Social Security Retirement Age.

*Form of Payment:* Life annuity. Actuarially equivalent options are:

(a) 5, 10, 15 or 20-year certain and life, or

(b) 50% or 100% joint and survivor with bounce back feature without additional reduction.

(c) A larger life annuity before age 62 and reduced thereafter.

*Benefit Increases:* Annual Cost-of-Living Adjustment (COLA):

Increase all benefits by 2.00% each January 1. An additional increase will be allowed when the 5-year average rate of return of the fund exceeds the Fund's assumed rate of

| | |
|---|---|
| | return, currently 8.50%. To be eligible for a COLA, a retiree or beneficiary must have received a payment for at least 12 months as of the adjustment date. |
| **Disability (Old Plan):** | |
| *Age/Service Requirement:* | Totally and permanently disabled as a teacher before the age of 60 with five years of Credited Service. |
| *Amount:* | (a) Normal Retirement benefit based on Credited Service and Average Salary at disability date without reduction for early commencement. Amount is reduced for Workers' Compensation. |
| | (b) Payment stops at age 60, or earlier if disability ceases or death occurs. |
| *Form of Payment:* | Same as for Normal Retirement. |
| *Benefit Increases:* | Same as for Normal Retirement. |
| **Disability (New Plan):** | |
| *Age/Service Requirement:* | Totally and permanently disabled under Normal Retirement Age with three years of Credited Service. Also, at least two of the years of Credited Service must have been uninterrupted. |
| *Amount:* | (a) Normal Retirement benefit based on Credited Service and Average Salary at disability without reduction commencement before retirement age. Benefit is reduced by Workers' Compensation. |
| | (b) Payments may begin 90 days after disability and stops at Normal Retirement Age, or earlier if disability ceases or death occurs. Benefits paid while partially employed may be reduced. |
| *Form of Payment:* | Same as for Normal Retirement. |
| *Benefit Increases:* | Same as for Normal Retirement. |
| *Retirement After Disability:* | |
| *Age/Service Requirement:* | Normal Retirement Age if still totally and permanently disabled. |
| *Amount:* | Optional annuity continues, otherwise the larger of the disability benefit paid before Normal Retirement Age or the Normal Retirement benefit available at Normal Retirement Age, or an actuarial equivalent optional annuity. |
| *Benefit Increases:* | Same as for retirement. |

**Withdrawal (Old Plan):**

*Refund of Member's Contributions:*

| | |
|---|---|
| *Age/Service Requirement:* | Termination from Teaching Service. |
| *Amount:* | Member's contributions with 5.00% interest compounded annually if termination occurred before May 16, 1989, and 6.00% interest if termination occurred on or after May 16, 1989. |

*Deferred Annuity:*

| | |
|---|---|
| *Age/Service Requirement:* | Ten years of Credited Service. |
| *Amount:* | Benefit computed under law in effect at termination and increased by the following annual percentage: 3.00% until January 1 of the year following attainment of age 55 and 5.00% thereafter until the annuity begins. Amount is payable as a Normal or Early Retirement. |

**Withdrawal (New Plan):**

*Refund of Member's Contributions:*

| | |
|---|---|
| *Age/Service Requirement:* | Termination from Teaching Service. |
| *Amount:* | Member's contributions with 5.00% interest compounded annually if termination occurred before May 16, 1989, and 6.00% interest if termination occurred on or after May 16, 1989. |

*Deferred Annuity:*

| | |
|---|---|
| *Age/Service Requirement:* | Three years of Credited Service. |
| *Amount:* | For members hired before July 1, 2006, the benefit is computed under law in effect at termination and increased by the following annual percentage:<br>(a) 3.00% until January 1 of the year following attainment of age 55, and<br>(b) 5.00% thereafter until the annuity begins.<br><br>For members hired after June 30, 2006, the benefit is computed under law in effect at termination and increased by 2.50% for all years.<br>Amount is payable as a Normal or Early Retirement. |

**Pre-Retirement Death Benefit (Old Plan):**

| | |
|---|---|
| *Age/Service Requirement:* | None. |
| *Amount:* | Refund of two times member's contributions accumulated with 5.00% interest compounded annually if death occurred before May 16, 1989, and 6.00% interest if death occurred on or after May 16, 1989. |

**Post-Retirement Death Benefit (Old Plan):**

| | |
|---|---|
| *Age/Service Requirement:* | None. |
| *Amount:* | Refund the excess of member's contributions over total benefits paid, accumulated with 5.00% interest compounded annually if death occurred before May 16, 1989, and 6.00% interest compounded annually if death occurred on or after May 16, 1989. |

**Surviving Spouse Benefit (Old Plan):**

*Optional Annuity I:*

| | |
|---|---|
| *Age/Service Requirement:* | Death of active member with ten years of Credited Service. |
| *Amount:* | In lieu of the Pre-Retirement Death Benefit Refund, an annuity to surviving spouse equivalent to 120% of the refund amount. |

*Optional Annuity II:*

| | |
|---|---|
| *Age/Service Requirement:* | Death of active member who is age 55 with ten years of Credited Service. |
| *Amount:* | In lieu of Pre-Retirement Death Benefit Refund or Surviving Spouse Optional Annuity I, spouse may elect survivor portion of the 100% joint and survivor annuity the member could have elected if terminated. |

| | |
|---|---|
| **Pre-Retirement Death Benefit (New Plan):** | |
| *Surviving Spouse Optional Annuity:* | |
| *Age/Service Requirement:* | Member who dies before retirement benefits commence with three years of Credited Service. |
| *Amount:* | Survivor's payment of the 100% joint and survivor benefit or an actuarial equivalent term certain annuity. If commencement is prior to Normal Retirement Age, the benefit is reduced at the early retirement reduction factors, with half the applicable reduction factor used from age 55 to the actual commencement age. If no surviving spouse, then an actuarial equivalent dependent child benefit is paid to age 20 or for five years if longer. |
| *Benefit Increases:* | Same as for Normal Retirement. |
| *Refund of Member's Contributions:* | |
| *Age/Service Requirement:* | Member or former member dies before receiving any disability or retirement benefits, and survivor benefits are not payable. |
| *Amount:* | Member's contributions with 5.00% interest compounded annually if death occurred before May 16, 1989, and 6.00% interest if death occurred on or after May 16, 1989. |
| **Contributions:** | |
| *Member:* | 5.50% of salary. |
| *Employer:* | 5.79% of salary. |
| *Direct State Aid:* | $346,000 per year each October 1, beginning in 2008. |
| **Changes in Plan Provisions:** | There have been no changes in the plan provisions since the prior valuation. |

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