

St. Paul Teachers' Retirement Fund Association

Actuarial Valuation as of July 1, 2023





October 23, 2023

Mr. Phillip Tencick, Executive Director
St. Paul Teachers' Retirement Fund Association
2550 University Avenue W, Suite 312N
St. Paul, Minnesota 55114

Dear Mr. Tencick:

We are pleased to present the report of the actuarial valuation of the St. Paul Teachers' Retirement Fund Association ("Fund") as of July 1, 2023. This report provides, among other things, the required annual contribution rate of the Fund for the Plan Year commencing July 1, 2023 and ending on June 30, 2024, according to prescribed assumptions. Note that the impact of GASB Statements No. 67 and No. 68 is provided in a separate report.

The valuation was based upon data and information through June 30, 2023 furnished by the Fund staff, concerning Retirement Fund benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. Their efforts in furnishing the materials needed are gratefully acknowledged. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Fund.

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

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section 4 of this report. This report includes risk metrics beginning on page 9, but does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

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

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation, and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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

Actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by Minnesota Statutes Section 356.215, the Legislative Commission on Pensions and Retirement (LCPR), and the Board of Trustees. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The combined effect of the assumptions, excluding prescribed assumptions or methods set by law, is expected to have no significant bias (i.e. not significantly optimistic or pessimistic). All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis of this report. The Fund is solely responsible for communicating to GRS any changes required thereto.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. Bonita J. Wurst and Sheryl L. Christensen are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

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

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Bonita J. Wurst, ASA, EA, FCA, MAAA



Sheryl L. Christensen, FSA, EA, FCA, MAAA



Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if there are no changes in benefits, Chapter 356 required contributions are made, and all actuarial assumptions are met (including the assumption of the plan earning 7.00% on an actuarial value of assets basis, as prescribed by statutes), it is expected that:

- (1) The normal cost of the plan is expected to remain approximately level as a percent of pay;
- (2) The funded status of the plan is expected to gradually improve and is expected to be 100% funded within the next 25 years; and
- (3) The unfunded liability will grow initially as a dollar amount before beginning to decline.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; in other words, of transferring the obligations to an unrelated third party in an arm's length market value type transaction.
- (2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).
- (3) The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets.



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Summary of Valuation Results

This report sets forth the results of the actuarial valuation of the St. Paul Teachers' Retirement Fund Association ("Fund") as of July 1, 2023. The purposes of this valuation are:

1. To develop the Actuarially Determined Contribution (ADC) rates.
2. To compare the ADC 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.

2023 Pension Bills

In May 2023, new laws with significant changes in benefits, contributions and assumptions were signed into law. These changes are first reflected in this valuation report.

Contribution Sufficiency/(Deficiency)

Statutory contributions are defined in Section 356 of Minnesota Statutes as a fixed percentage of payroll, plus any supplemental contributions, and represent the amount that is actually contributed to the fund. Required contributions are defined in statutes and the LCPR Standards for Actuarial Work, and represent the amount needed to fully fund the plan within 25 years (normal cost, expenses, and a payment to amortize the unfunded liability).

The required contribution rate increased, from 19.96% of payroll as of July 1, 2022 to 24.50% of payroll as of July 1, 2023, due to the changes in plan provisions and assumptions described on the next page. The statutory contribution rate increased from 25.13% of payroll as of July 1, 2022 to 30.86% of payroll as of July 1, 2023 (25.71% without the one-time state aid received in October 2023). Member contributions increased from 7.50% to 7.75%, effective July 1, 2023 and employer contributions increased from 8.80% to 9.00%, effective July 1, 2023.

The contribution sufficiency improved from 5.17% of payroll as of July 1, 2022 to 6.36% of payroll, due to the one-time state aid received in October 2023. Without this state aid, the contribution sufficiency is 1.21% of payroll. On a market value of assets basis, statutory contributions are sufficient by 5.98% of payroll (0.83% without the one-time direct state aid) of payroll.

The contribution sufficiency referenced above is based on a current snapshot of statutory contributions as of July 1, 2023. Additional contribution increases are effective July 1, 2025, ultimately increasing the statutory contribution rate (and the contribution sufficiency) an additional 2.00% of pay.



Summary of Valuation Results

Assets and Liabilities

On an actuarial value of assets basis, the funding ratio decreased, from 68.73% at July 1, 2022 to 65.25% at July 1, 2023. Total actuarial liabilities increased from \$1,750.4 million to \$1,891.6 million, primarily due to the changes in plan provisions and assumptions.

On a market value of assets basis, the funding ratio decreased from 65.95% at July 1, 2022 to 64.32% at July 1, 2023.

Market Value Compared to Actuarial Value of Assets

A 5-year smoothed value of assets (actuarial 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, 2023, the actuarial value of assets is 101.44% of market value.

The following table shows the July 1, 2023 valuation results, on both a market value and smoothed actuarial value basis:

| Results as of July 1, 2023 | | |
|---|------------------------|---------------------------|
| | Market Value of Assets | Actuarial Value of Assets |
| Actuarial Accrued Liability | \$1,891.6 million | \$1,891.6 million |
| Value of Assets | \$1,216.8 million | \$1,234.2 million |
| Unfunded Actuarial Accrued Liability | \$ 674.8 million | \$ 657.4 million |
| Funded Ratio | 64.32% | 65.25% |
| Statutory Contribution Rate | 30.86% of pay | 30.86% of pay |
| Required Contribution Rate | 24.88% of pay | 24.50% of pay |
| Sufficiency (with one-time direct state aid) | 5.98% of pay | 6.36% of pay |
| Sufficiency (without one-time direct state aid) | 0.83% of pay | 1.21% of pay |

Changes Reflected in the Valuation

Assumption and Method Changes

There were no change in actuarial methods since the prior valuation.

The statutory investment return was changed from 7.5% to 7.0% and the assumed wage inflation was changed from 3.0% to 2.5%. Additional demographic assumption changes, as recommended in the most recent experience study dated December 8, 2022, are reflected in this valuation, including changes to assumed rates of mortality, retirement, termination, disability and salary increases. The assumption changes increased the actuarial accrued liability \$84.2 million and increased the required contribution 2.49% of pay. See Table 12 for a full description of these changes and page 4 for the impact of these changes.



Summary of Valuation Results

Plan Provision Changes

The following plan changes are recognized in this valuation:

- Contribution increases as previously scheduled, effective July 1, 2023:
 - Member contributions increase from 7.50% of pay to 7.75% of pay.
 - Employer contributions increase from 8.80% to 9.00% of pay.
- Statutory changes to contribution rates, effective July 1, 2025:
 - Member contributions increase from 7.75% of pay to 9.00% of pay.
 - Employer contributions increase from 9.00% to 9.75% of pay.
- An additional one-time direct state aid contribution of \$15.7 million in October 2023.
- The Normal Retirement changes to age 65 for members hired after July 1, 1989, effective July 1, 2025.
- Benefits at age 62 and 30 years of service are unreduced, effective July 1, 2023.
- A one-time, non-compounding benefit increase of 1.5% for Coordinated members in payment status and 3.0% for Basic members in payment status is payable in a lump sum for calendar year 2024 by March 31, 2024.

The benefit changes increased the actuarial accrued liability \$42.4 million, which will be partially offset by a one-time state contribution of \$15.7 million (to be reflected in next year's valuation). The benefit changes increased the required contribution 1.87% of pay, which is offset by prospective contribution increase of 2.00% of pay, effective July 1, 2025. See page 4 for additional detail.



Summary of Valuation Results

Effects of Changes (Actuarial Value of Assets Basis)

Additional detail regarding the impact of the changes in plan provisions and assumptions are summarized in the following table.

| | Results as of July 1, 2023 (\$000s) | | |
|--|-------------------------------------|-------------------------|--|
| | Prior to Changes | Reflecting Plan Changes | Reflecting Plan and Assumption Changes |
| A. FUNDING RATIOS | | | |
| 1. Accrued Liability Funding Ratio | | | |
| a. Current Assets | \$ 1,234,225 | \$ 1,234,225 | \$ 1,234,225 |
| b. Actuarial Accrued Liability | 1,764,762 | 1,807,412 | 1,891,617 |
| c. Funding Ratio | 69.94% | 68.29% | 65.25% |
| 2. Projected Benefit Funding Ratio | | | |
| a. Current and Expected Future Assets | \$ 2,182,784 | \$ 2,267,361 | \$ 2,259,768 |
| b. Current and Expected Future Benefit Obligations | 1,981,207 | 2,047,075 | 2,155,864 |
| c. Funding Ratio | 110.17% | 110.76% | 104.82% |
| B. REQUIRED CONTRIBUTIONS - CHAPTER 356 | | | |
| 1. Normal Cost | 8.34% | 9.29% | 9.87% |
| 2. Supplemental Contribution Amortization | 11.42% | 12.34% | 14.25% |
| 3. Allowance for Administrative Expenses | 0.38% | 0.38% | 0.38% |
| 4. Total | 20.14% | 22.01% | 24.50% |

Participants

Active membership decreased 1.2% during fiscal year 2023, from 3,400 to 3,360 (figures exclude members on leave of absence). When members on leave of absence are included, active membership decreased 2.0%, from 3,528 to 3,456. Total participants receiving benefits under the Fund, including disabled retirees, beneficiaries, and alternate payees, increased 1.3% during fiscal year 2023 from 4,253 to 4,310. Total annuity expenditures for these benefits increased from \$120.7 million to \$122.3 million during fiscal year 2023, or 1.3%.

Covered payroll decreased 2.5% during fiscal year 2023, from \$304 million to \$297 million. Projected payroll for fiscal year 2024 is \$306 million.

Asset Valuation Method

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



Summary of Valuation Results

Experience Analysis

The experience analysis provides a comparison of actual experience to projected experience based on the actuarial assumptions over the past year. Overall, the Fund had an experience gain of \$6.2 million.

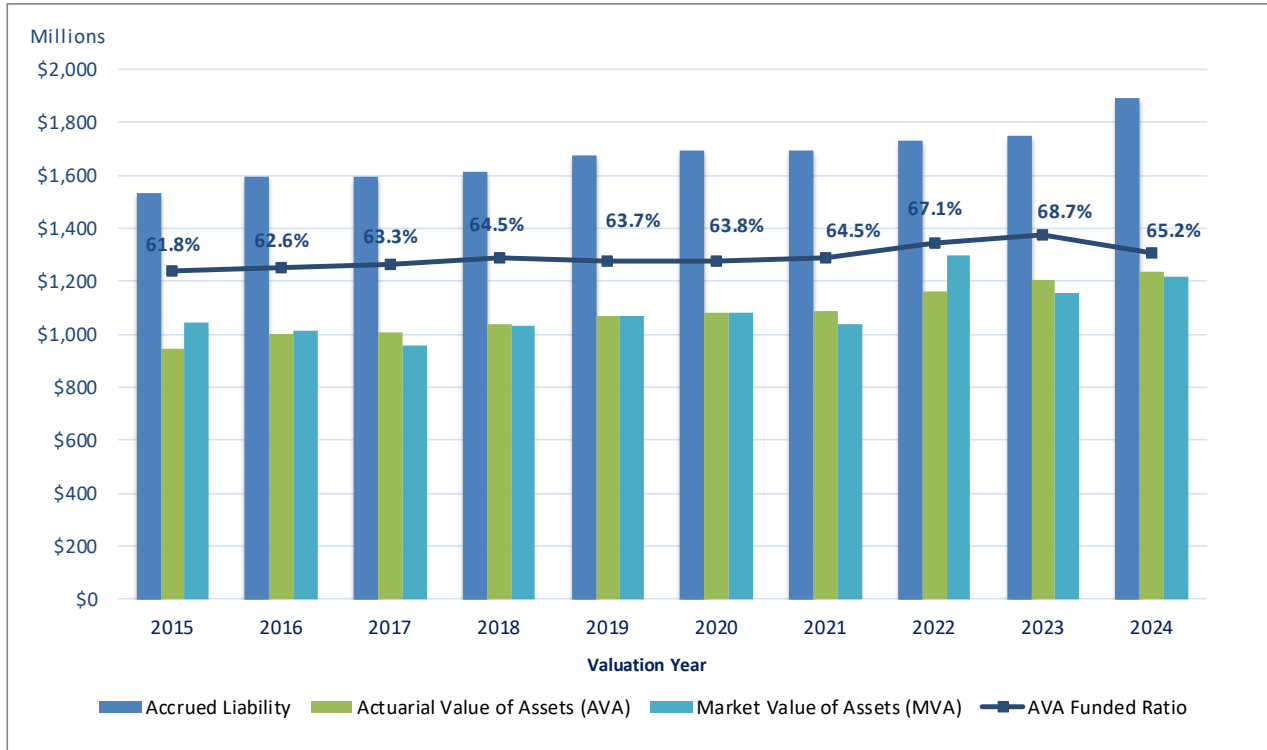
The Fund had an experience gain due to investments. The investment return on a market value of assets basis was 9.43% (net of fees) for the year ended June 30, 2023, more than the 7.50% assumption (prospectively, the assumed return will be 7.0%). However, only 20% of this asset gain was recognized in the actuarial value of assets. Investment gains and losses from previous years were also recognized this year. The net result is a loss of \$10.6 million on the actuarial value of assets. The investment return on an actuarial value of assets basis was 6.60% for the year ended June 30, 2023.

The actuarial accrued liability increased less than expected. Salaries did not increase as much as expected for continuing actives, resulting in an actuarial gain of \$8.4 million. Other demographic experience produced an additional gain of \$8.4 million, which includes an actuarial gain of \$4.7 million due to more terminations than expected.

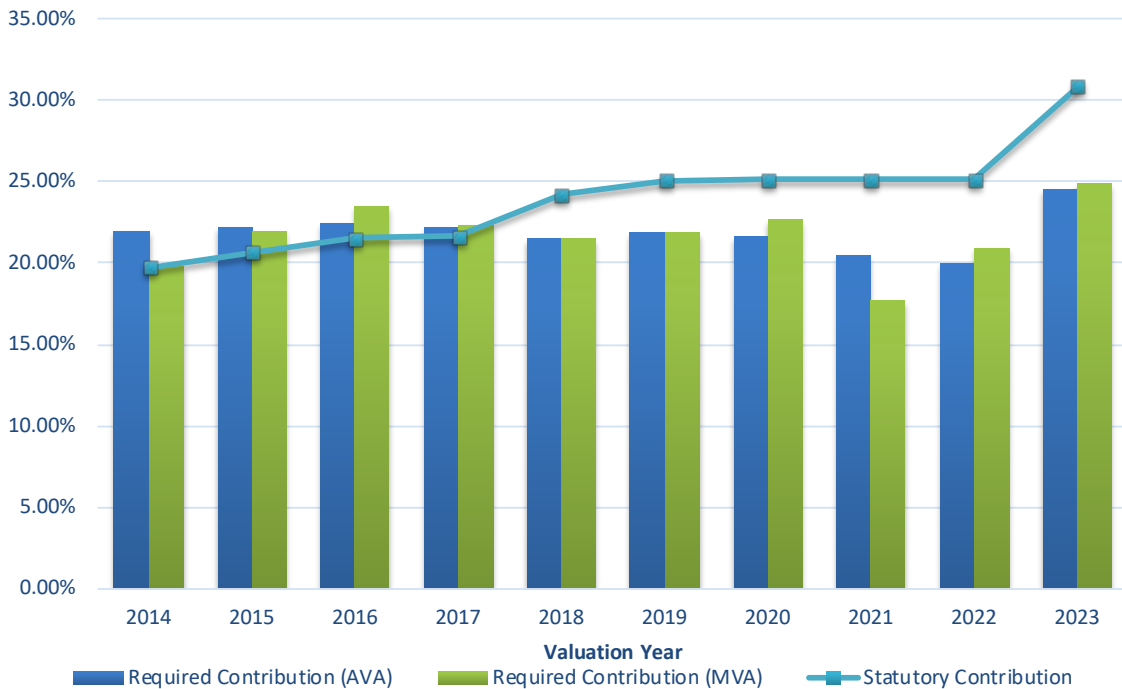
The changes in unfunded actuarial accrued liabilities are shown in Table 10 in Section 3.

Summary of Valuation Results

Funded Ratio History



Contribution Rate History (% of pay)



Note: 2023 statutory contribution includes one-time state aid (25.71% on a market value of assets basis without one-time state aid).



Summary of Valuation Results

Sensitivity Tests

During the 2017 legislative session, the Legislative Commission on Pensions and Retirement (LCPR) enacted a new sensitivity disclosure requirement for the Fund's valuations. Per the LCPR's requirement, we have calculated the liabilities associated with the following scenarios:

- 1) 6.0% interest rate assumption
- 2) 8.0% interest rate assumption

In each case, all other assumptions were unchanged from those used to develop the final valuation results in this report. Note that we believe the 8.0% interest rate assumption does not comply with Actuarial Standards of Practice.

| Interest rate: | (Statutory) | | |
|---|--------------------|--------------|--------------|
| | 7.00% | 6.00% | 8.00% |
| Normal Cost Rate, % of Pay | 9.87% | 12.16% | 8.21% |
| Amortization of Unfunded Accrued Liability, % of Pay | 14.25% | 17.53% | 11.01% |
| Expenses (% of Pay) | 0.38% | 0.38% | 0.38% |
| Total Required Contribution, % of Pay | 24.50% | 30.07% | 19.60% |
| Contribution Sufficiency/(Deficiency), % of Pay | 6.36% | 0.79% | 11.27% |
| Accrued Liability Funding Ratio (AVA basis) | 65.2% | 58.0% | 72.7% |
| Actuarial Accrued Liability (in millions) | \$1,891.6 | \$2,127.5 | \$1,696.6 |
| Unfunded Accrued Liability (in millions) | \$ 657.4 | \$ 893.3 | \$ 462.4 |



Summary of Valuation Results

(Dollars in Thousands)

| | July 1, 2022 Valuation | July 1, 2023 Valuation |
|--|---------------------------|---------------------------|
| A. CONTRIBUTIONS % OF PAYROLL (Table 11) | | |
| 1. Statutory Contributions - Chapter 354A | 25.13% | 30.86% ** |
| 2. Required Contributions - Chapter 356 | 19.96% | 24.50% |
| 3. Sufficiency / (Deficiency) | 5.17% | 6.36% |
| B. FUNDING RATIOS | | |
| 1. Accrued Liability Funding Ratio | | |
| a. Current Assets (Table 1) | \$ 1,203,096 | \$ 1,234,225 |
| b. Actuarial Accrued Liability (Table 9) | 1,750,421 | 1,891,617 |
| c. Funding Ratio | 68.73% | 65.25% |
| 2. Projected Benefit Funding Ratio (Table 8) | | |
| a. Current and Expected Future Assets | \$ 2,183,758 | \$ 2,259,768 |
| b. Current and Expected Future Benefit Obligations | 1,971,549 | 2,155,864 |
| c. Funding Ratio | 110.76% | 104.82% |
| C. PLAN PARTICIPANTS | | |
| 1. Active Members | | |
| a. Number (Table 3) | 3,400 | 3,360 |
| b. Projected Annual Earnings* | \$ 313,824 | \$ 305,719 |
| c. Average Annual Earnings (Projected dollars)* | \$ 87,941 | \$ 88,019 |
| d. Average Age | 44.6 | 45.1 |
| e. Average Service | 12.9 | 13.2 |
| f. Members on Leave of Absence | 128 | 96 |
| 2. Others | | |
| a. Service Retirements (Table 4) | 3,856 | 3,905 |
| b. Disability Retirements (Table 5) | 22 | 24 |
| c. Survivors (Table 6) | 375 | 381 |
| d. Deferred Retirements (Table 7) | 2,514 | 2,611 |
| e. Terminated Other Non-Vested (Table 7) | 2,915 | 3,007 |
| f. Total - Others | 9,682 | 9,928 |
| 3. Grand Total (1.a + 1.f + 2.f) | 13,210 | 13,384 |

* Projected Annual Earnings includes expected payroll for teachers hired after the valuation date to replace retirements in May and June prior to the valuation date; Average Annual Earnings excludes this new teacher payroll. See page 34 for additional information.

** Statutory contribution includes one-time state aid (25.71% without one-time state aid).



Summary of Valuation Results

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.



Summary of Valuation Results

The Required Contribution rate shown on page 8 may be considered as a minimum contribution rate that complies with Minnesota Statutes and the requirements of the Standards for Actuarial work published by the LCPR. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following. Additional maturity measures are shown on page 10.

| | <u>2022</u> | <u>2023</u> |
|--|-------------|-------------|
| Ratio of market value of assets to total payroll | 3.79 | 4.10 |
| Ratio of actuarial accrued liability to total payroll | 5.75 | 6.38 |
| Ratio of actives to retirees and beneficiaries | 0.8 | 0.8 |
| Ratio of non-investment cash flow to market value of assets* | -3.9% | -3.9% |

* Cash flow ratio does not reflect contribution increases to be phased in over future years.

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Summary of Valuation Results

RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES

A young plan with many active members and few retirees will have a high ratio of actives to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A very mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

RATIO OF NON-INVESTMENT CASH FLOW TO MARKET VALUE OF ASSETS

A positive non-investment cash flow means contributions exceed benefits and expenses. A negative non-investment cash flow means benefits and expenses exceed contributions, and existing funds may be used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a very mature plan or a need for additional contributions. The cash flow ratio for this fund will improve as future contribution increases are phased in.

ADDITIONAL RISK ASSESSMENT

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Summary of Valuation Results

Risk Measures Summary (Dollars in Thousands)

| Valuation Date (July 1) | (1) Accrued Liabilities (AAL) | (2) Market Value of Assets | (3) Market Value Unfunded AAL (1) - (2) | (4) Valuation Payroll | (5) Market Value Funded Ratio (2) / (1) | (6) Retiree Liabilities | (7) RetLiab/ AAL (6) / (1) | (8) AAL/ Payroll (1) / (4) | (9) Assets/ Payroll (2) / (4) |
|-------------------------|----------------------------------|-------------------------------|--|--------------------------|--|----------------------------|-------------------------------|-------------------------------|----------------------------------|
| 2014 | \$ 1,533,603 | \$ 1,045,435 | \$ 488,168 | \$ 259,740 | 68.2% | \$ 1,015,617 | 66.2% | 590.4% | 402.5% |
| 2015 | 1,596,770 | 1,014,969 | 581,801 | 263,844 | 63.6% | 1,053,824 | 66.0% | 605.2% | 384.7% |
| 2016 | 1,592,570 | 959,666 | 632,904 | 258,787 | 60.3% | 1,052,827 | 66.1% | 615.4% | 370.8% |
| 2017 | 1,611,208 | 1,032,249 | 578,959 | 264,342 | 64.1% | 1,068,690 | 66.3% | 609.5% | 390.5% |
| 2018 | 1,676,193 | 1,070,572 | 605,621 | 263,122 | 63.9% | 1,129,864 | 67.4% | 637.0% | 406.9% |
| 2019 | 1,691,721 | 1,080,544 | 611,177 | 268,614 | 63.9% | 1,133,369 | 67.0% | 629.8% | 402.3% |
| 2020 | 1,691,236 | 1,037,613 | 653,623 | 274,667 | 61.4% | 1,135,360 | 67.1% | 615.7% | 377.8% |
| 2021 | 1,729,621 | 1,295,064 | 434,557 | 279,916 | 74.9% | 1,151,345 | 66.6% | 617.9% | 462.7% |
| 2022 | 1,750,421 | 1,154,427 | 595,994 | 304,227 | 66.0% | 1,161,360 | 66.3% | 575.4% | 379.5% |
| 2023 | 1,891,617 | 1,216,753 | 674,864 | 296,674 | 64.3% | 1,176,538 | 62.2% | 637.6% | 410.1% |

| Valuation Date (July 1) | (10) Portfolio StdDev | (11) Std Dev % of Pay (9) x (10) | (12) Unfunded / Payroll (3) / (4) | (13) Non-Investment Cash Flow (NICF) | (14) NICF/ Assets (13) / (2) | (15) Market Rate of Return | (16) 5-Year Average |
|-------------------------|--------------------------|-------------------------------------|--------------------------------------|---|---------------------------------|-------------------------------|------------------------|
| 2014 | | | 187.9% | (55,823) | (5.3%) | 18.4% | 13.7% |
| 2015 | | | 220.5% | (56,223) | (5.5%) | 2.7% | 11.5% |
| 2016 | 13.4% | 49.7% | 244.6% | (56,778) | (5.9%) | 0.3% | 6.7% |
| 2017 | 13.4% | 52.3% | 219.0% | (56,136) | (5.4%) | 13.9% | 9.5% |
| 2018 | 13.7% | 55.7% | 230.2% | (57,563) | (5.4%) | 9.8% | 8.8% |
| 2019 | 13.7% | 55.1% | 227.5% | (50,237) | (4.6%) | 5.7% | 6.4% |
| 2020 | 13.7% | 51.8% | 238.0% | (48,657) | (4.7%) | 0.1% | 5.8% |
| 2021 | 13.7% | 63.4% | 155.2% | (47,781) | (3.7%) | 32.7% | 11.9% |
| 2022 | 13.8% | 52.4% | 195.9% | (44,649) | (3.9%) | (9.4%) | 6.9% |
| 2023 | 13.8% | 56.6% | 227.5% | (47,971) | (3.9%) | 9.4% | 6.8% |

Notes pertaining to numbered columns:

- (5) The Funded ratio is the most widely known measure of a plan's financial strength, but the trend in the funded ratio is much more important than the absolute ratio. The funded ratio should trend to 100%. As it approaches 100%, it is important to re-evaluate the level of investment risk in the portfolio and potentially to re-evaluate the assumed rate of return.
- (6) and (7) The ratio of Retiree liabilities to total accrued liabilities gives an indication of the maturity of the system. As the ratio increases, cash flow needs increase, and the liquidity needs of the portfolio change. A ratio on the order of 50% indicates a maturing system.
- (8) and (9) The ratios of liabilities and assets to payroll gives an indication of both maturity and volatility. Many systems have ratios between 500% and 700%. Ratios significantly above that range may indicate difficulty in supporting the benefit level as a level % of payroll.
- (10) and (11) The portfolio standard deviation measures the volatility of investment return. When multiplied by the ratio of assets to payroll it gives the effect of a one standard deviation asset move as a percent of payroll. This figure helps users understand the difficulty of dealing with investment volatility and the challenges volatility brings to sustainability.
- (12) The ratio of unfunded liability to payroll gives an indication of the plan sponsor's ability to actually pay off the unfunded liability. A ratio above approximately 300% or 400% may indicate difficulty in discharging the unfunded liability within a reasonable time frame.
- (13) and (14) The ratio of non-investment cash flow to assets is an important measure of sustainability. Negative ratios are common and expected for a maturing system. In the longer term, this ratio should be on the order of approximately (4)%. A ratio that is significantly more negative than that for an extended period could be a leading indicator of potential exhaustion of assets.
- (15) and (16) Investment return is probably the largest single risk that most systems face. The year by year return and the 5-year geometric average give an indicator of past performance. Of course, past performance is not a guarantee of future results, may not even be reflective of potential future results, and historical averages are very sensitive to the time period chosen.

Summary of Valuation Results

Low-Default-Risk Obligation Measure

Actuarial Standards of Practice No. 4 (ASOP No. 4) was revised and reissued in December 2021 by the Actuarial Standards Board (ASB). It includes a new calculation called a Low-Default-Risk Obligation Measure (LDRM) to be prepared and issued annually for defined benefit pension plans. The transmittal memorandum for ASOP No. 4 includes the following explanation:

“The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure is not intended to suggest that this is the “right” liability measure for a pension plan. However, the ASB does believe that this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.”

The following information has been prepared in compliance with this new requirement. Unless otherwise noted, the measurement date, actuarial cost methods, and assumptions used are the same as for the funding valuation covered in this actuarial valuation report.

- A. Low-Default-Risk Obligation Measure of benefits earned as of the measurement date: \$ 2,440,404,000
- B. Discount rate used to calculate the LDRM: 4.92%
- C. Other significant assumptions that differ from those used for the funding valuation: none
- D. Actuarial cost method used to calculate the LDRM: Entry Age Actuarial Cost Method
- E. Valuation procedures to value any significant plan provisions that are difficult to measure using traditional valuation procedures, and that differ from the procedures used in the funding valuation: none
- F. The LDRM is a market-based measurement of the pension obligation. It estimates the amount the plan would need to invest in low risk securities to provide the benefits with greater certainty. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation.

The difference between the two measures (Valuation and LDRM) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.



SECTION 1

ASSET INFORMATION

Assets of the Plan

The market value of the plan assets increased from \$1,154.4 million as of June 30, 2022 to \$1,216.8 million as of June 30, 2023. The expected return on assets using the valuation investment return rate assumption of 7.5 percent was \$84.8 million. The actual plan experience was a gain on assets of \$110.3 million. Twenty percent of the asset return above the expected \$84.8 million is recognized as an actuarial gain in the development of the actuarial value of assets. The recognized gain from the current year, along with the portion of prior gains and losses recognized this year, results in an overall loss of \$10.6 million on the actuarial value of assets as shown in Table 10.

The 2022 and 2020 asset losses as well as the 2023 and 2021 asset gains (investment returns that fell above (gain) or below (loss) the expected return – amounts shown on the next page) will be recognized incrementally over the next four years. As of July 1, 2023, there are more unrecognized asset losses than gains, and the Actuarial Value of Assets (AVA) is greater than the Market Value of Assets (MVA) by \$17.5 million, or 1.4%.

Table 1 shows the composition of assets as of June 30, 2023 and the development of the actuarial value of assets as of June 30, 2023. Table 2 details the development of asset values during fiscal year 2023.

Table 1

Accounting Balance Sheet

as of June 30, 2023

(Dollars in Thousands)

| | Market Value |
|--|---------------------|
| A. ASSETS | |
| 1. Cash, Equivalents, Short-Term Securities | \$ 9,692 |
| 2. Investments | |
| a. Fixed Income | 169,178 |
| b. Equity | 714,327 |
| c. Real Assets | 79,692 |
| d. Alternative | 187,133 |
| e. Cash and Cash Equivalents | 56,541 |
| 3. Other Assets | 7,051 |
| B. TOTAL ASSETS | \$ 1,223,614 |
| C. AMOUNTS CURRENTLY PAYABLE | \$ 6,861 |
| D. ASSETS AVAILABLE FOR BENEFITS | |
| 1. Member Reserves | \$ 252,145 |
| 2. Employer Reserves | 964,608 |
| 3. Total Assets Available for Benefits | \$ 1,216,753 |
| E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS | \$ 1,223,614 |
| F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS | |
| 1. Market Value of Assets Available for Benefits (D.3) | \$ 1,216,753 |
| 2. Unrecognized Asset Returns (UAR) | |
| a. June 30, 2023 | \$ 25,514 |
| b. June 30, 2022 | (191,444) |
| c. June 30, 2021 | 229,203 |
| d. June 30, 2020 | (73,490) |
| 3. UAR Adjustment: $.80 * 2(a) + .60 * 2(b) + .40 * 2(c) + .20 * 2(d)$ | (17,472) |
| 4. Actuarial Value of Assets: (F.1 - F.3) | \$ 1,234,225 |
| DERIVATION OF OTHER ASSETS * | Market Value |
| Accounts Receivable | |
| Employer Contribution | \$ 438 |
| Employee Contribution | 229 |
| Service Purchases Receivable | 55 |
| Pensions Receivable | 37 |
| State Contributions | 838 |
| Real Estate Income Receivable | 60 |
| Commission Recapture Receivable | 1,196 |
| Interest Receivable | 202 |
| Dividend Receivable | - |
| Misc. Receivable | - |
| Sale of Securities | 3,996 |
| Total Accounts Receivable | \$ 7,051 |
| Fixed Assets | - |
| Total Other Assets | \$ 7,051 |

**Numbers may not add due to rounding.*



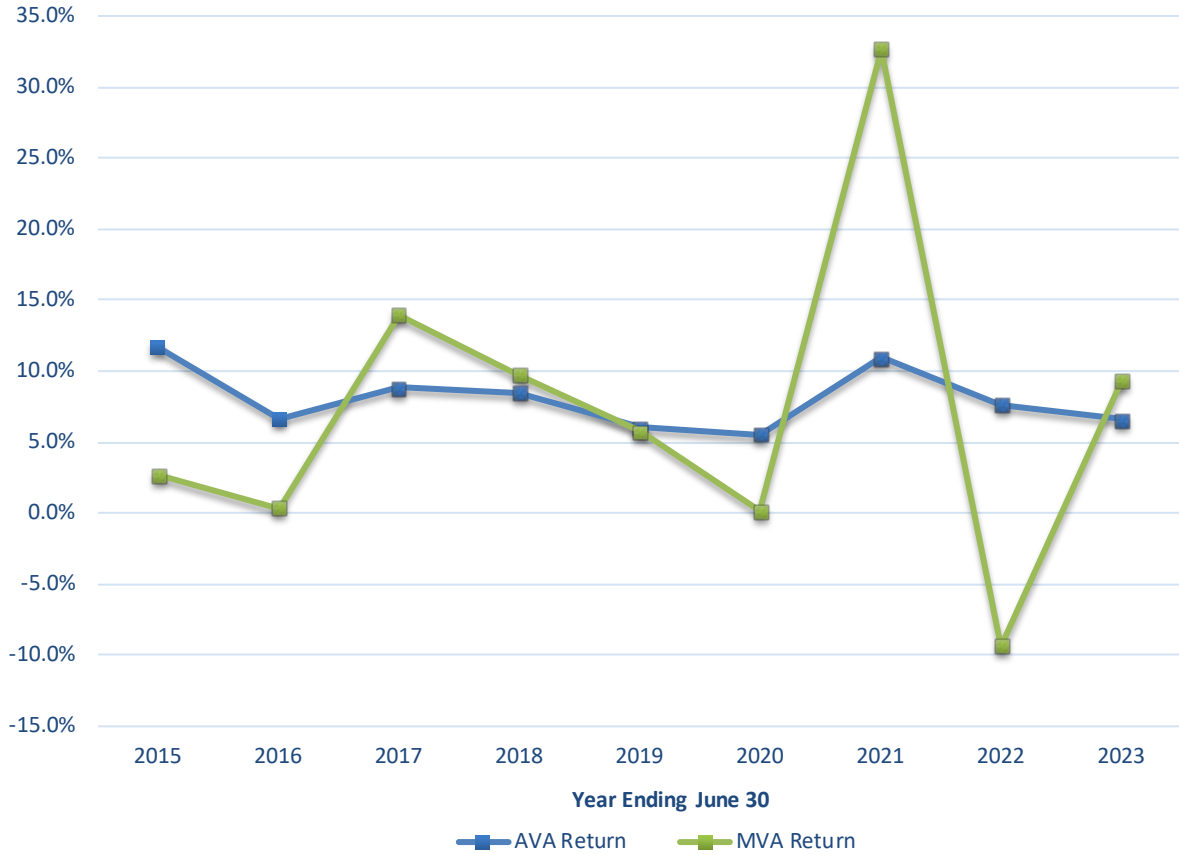
Table 2
Plan Assets
as of June 30, 2023
(Dollars in Thousands)

| | Market Value |
|--|---------------------|
| A. ASSETS AVAILABLE AT BEGINNING OF PERIOD | \$ 1,154,427 |
| | |
| B. OPERATING REVENUES | |
| 1. Member Contributions | \$ 22,420 |
| 2. Employer Contributions | 38,586 |
| 3. Supplemental Contributions | 15,665 |
| 4. Reemployed Annuitant Employer Contributions | 437 |
| 5. Investment Income | 15,599 |
| 6. Investment Expenses | (4,523) |
| 7. Net Realized Gain / (Loss) | 6,796 |
| 8. Other | 0 |
| 9. Net Change in Unrealized Gain / (Loss) | 92,425 |
| 10. Total Operating Revenue | \$ 187,405 |
| | |
| C. OPERATING EXPENSES | |
| 1. Service Retirements | \$ 109,272 |
| 2. Disability Benefits | 470 |
| 3. Survivor Benefits | 12,577 |
| 4. Refunds | 1,539 |
| 5. Benefit Payment Adjustment | 28 |
| 6. Administrative Expenses | 1,193 |
| 7. Total Operating Expenses | \$ 125,079 |
| | |
| D. OTHER CHANGES IN RESERVES | \$ 0 |
| | |
| E. ASSETS AVAILABLE AT END OF PERIOD | \$ 1,216,753 |
| | |
| F. DETERMINATION OF CURRENT YEAR UNRECOGNIZED ASSET RETURN | |
| 1. Average Balance | |
| (a) Assets available at BOY | \$ 1,154,427 |
| (b) Assets available at EOY | 1,216,753 |
| (c) Average balance $\{[(a) + (b) - \text{Net Investment Income}] / 2\}$ | \$ 1,130,442 |
| {Net investment income: B.5+B.6+B.7+B.9} | |
| 2. Expected Return: $.075 * F.1$ | 84,783 |
| 3. Actual Return | 110,297 |
| 4. Current Year Gross Asset Gain/(Loss): $F.3 - F.2$ | \$ 25,514 |



Historical Asset Returns

History of AVA and MVA Asset Returns



| Valuation Year | AVA | MVA |
|-----------------------|------------|------------|
| 2015 | 11.7% | 2.7% |
| 2016 | 6.6% | 0.3% |
| 2017 | 8.8% | 13.9% |
| 2018 | 8.5% | 9.8% |
| 2019 | 6.0% | 5.7% |
| 2020 | 5.6% | 0.1% |
| 2021 | 10.9% | 32.7% |
| 2022 | 7.6% | -9.4% |
| 2023 | 6.6% | 9.4% |

SECTION 2

TOTAL MEMBERSHIP DATA

Table 3

Active Members as of June 30, 2023*

| Age | Years of Service | | | | | | | | ALL |
|-------|------------------|-----|-------|-------|-------|-------|-------|-----|-------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | |
| < 25 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 25-29 | 217 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 230 |
| 30-34 | 212 | 156 | 26 | 0 | 0 | 0 | 0 | 0 | 394 |
| 35-39 | 166 | 134 | 141 | 19 | 0 | 0 | 0 | 0 | 460 |
| 40-44 | 130 | 116 | 137 | 141 | 19 | 0 | 0 | 0 | 543 |
| 45-49 | 82 | 63 | 73 | 112 | 158 | 24 | 0 | 0 | 512 |
| 50-54 | 68 | 49 | 58 | 54 | 132 | 179 | 19 | 0 | 559 |
| 55-59 | 38 | 25 | 30 | 32 | 90 | 138 | 66 | 4 | 423 |
| 60-64 | 23 | 13 | 20 | 21 | 41 | 59 | 44 | 20 | 241 |
| 65+ | 15 | 5 | 3 | 6 | 10 | 11 | 9 | 9 | 68 |
| ALL | 977 | 574 | 488 | 385 | 450 | 411 | 138 | 33 | 3,456 |

AVERAGE ANNUAL EARNINGS

| Age | Years of Service | | | | | | | | ALL |
|-------|------------------|--------|--------|--------|---------|---------|---------|---------|--------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | |
| < 25 | 45,264 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45,264 |
| 25-29 | 54,232 | 66,576 | 0 | 0 | 0 | 0 | 0 | 0 | 54,930 |
| 30-34 | 61,386 | 75,559 | 89,394 | 0 | 0 | 0 | 0 | 0 | 68,846 |
| 35-39 | 64,598 | 80,364 | 89,298 | 94,154 | 0 | 0 | 0 | 0 | 77,983 |
| 40-44 | 70,737 | 85,434 | 93,473 | 97,029 | 96,121 | 0 | 0 | 0 | 87,328 |
| 45-49 | 73,214 | 84,034 | 88,968 | 91,677 | 99,290 | 102,310 | 0 | 0 | 90,241 |
| 50-54 | 65,902 | 88,011 | 92,454 | 95,547 | 99,888 | 101,649 | 108,383 | 0 | 94,375 |
| 55-59 | 62,484 | 88,567 | 88,967 | 87,448 | 100,000 | 102,174 | 105,859 | 110,601 | 95,946 |
| 60-64 | 49,986 | 91,186 | 92,566 | 86,395 | 93,515 | 98,831 | 103,970 | 105,230 | 92,718 |
| 65+ | 26,305 | 70,220 | 90,964 | 90,867 | 87,094 | 104,672 | 100,211 | 102,227 | 79,530 |
| ALL | 61,701 | 81,340 | 90,925 | 93,650 | 98,676 | 101,540 | 105,236 | 105,062 | 84,353 |

Total Earnings (IN THOUSANDS) by Years of Service

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35 & Over | ALL |
|-----|--------|--------|--------|--------|--------|--------|--------|-----------|---------|
| ALL | 60,282 | 46,689 | 44,371 | 36,055 | 44,404 | 41,733 | 14,523 | 3,467 | 291,524 |

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



Table 4

Service Retirements as of June 30, 2023

| Member 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 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 60-64 | 256 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 335 |
| 65-69 | 320 | 293 | 121 | 0 | 0 | 0 | 0 | 0 | 0 | 734 |
| 70-74 | 94 | 362 | 338 | 186 | 0 | 0 | 0 | 0 | 0 | 980 |
| 75-79 | 10 | 70 | 270 | 336 | 157 | 1 | 0 | 0 | 0 | 844 |
| 80-84 | 2 | 16 | 33 | 134 | 232 | 94 | 1 | 0 | 0 | 512 |
| 85-89 | 0 | 4 | 5 | 10 | 87 | 136 | 40 | 0 | 0 | 282 |
| 90+ | 0 | 0 | 2 | 3 | 3 | 57 | 42 | 35 | 3 | 145 |
| ALL | 755 | 824 | 769 | 669 | 479 | 288 | 83 | 35 | 3 | 3,905 |

AVERAGE ANNUAL BENEFIT

| Member 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 | 27,569 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27,569 |
| 60-64 | 29,835 | 19,241 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27,337 |
| 65-69 | 22,463 | 23,520 | 22,193 | 0 | 0 | 0 | 0 | 0 | 0 | 22,841 |
| 70-74 | 12,963 | 20,842 | 25,900 | 34,525 | 0 | 0 | 0 | 0 | 0 | 24,428 |
| 75-79 | 20,771 | 16,481 | 26,197 | 34,963 | 35,088 | 20,949 | 0 | 0 | 0 | 30,464 |
| 80-84 | 7,183 | 14,760 | 21,612 | 25,791 | 35,144 | 35,234 | 30,121 | 0 | 0 | 31,084 |
| 85-89 | 0 | 8,103 | 5,914 | 19,745 | 39,370 | 44,064 | 34,181 | 0 | 0 | 39,165 |
| 90+ | 0 | 0 | 16,691 | 2,608 | 16,148 | 48,691 | 32,715 | 30,161 | 22,788 | 36,987 |
| ALL | 24,211 | 21,090 | 25,083 | 32,631 | 35,774 | 42,018 | 33,390 | 30,161 | 22,788 | 28,146 |

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|-----------|----------------|
| ALL | 18,279 | 17,379 | 19,288 | 21,830 | 17,136 | 12,101 | 2,771 | 1,056 | 68 | 109,908 |



Table 5 Disability Retirements as of June 30, 2023*

| Member 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 50-54 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 55-59 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 60-64 | 4 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 10 |
| 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 | 4 | 9 | 0 | 1 | 1 | 0 | 0 | 0 | 24 |

AVERAGE ANNUAL BENEFIT

| Member 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 | 20,179 | 0 | 3,632 | 0 | 0 | 0 | 0 | 0 | 0 | 11,906 |
| 50-54 | 11,959 | 7,718 | 35,397 | 0 | 0 | 0 | 0 | 0 | 0 | 15,798 |
| 55-59 | 5,972 | 27,015 | 17,173 | 0 | 0 | 0 | 0 | 0 | 0 | 16,979 |
| 60-64 | 30,662 | 22,908 | 22,377 | 0 | 25,928 | 5,925 | 0 | 0 | 0 | 24,507 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70-74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75-79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80-84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 85-89 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ALL | 20,519 | 20,137 | 18,850 | 0 | 25,928 | 5,925 | 0 | 0 | 0 | 19,447 |

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| ALL | 184 | 81 | 170 | 0 | 26 | 6 | 0 | 0 | 0 | 467 |

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



Table 6 Survivors as of June 30, 2023

| Age | Years Since Member Death | | | | | | | | | ALL |
|-------|--------------------------|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | |
| <45 | 13 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 45-49 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 50-54 | 4 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 |
| 55-59 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 60-64 | 3 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 65-69 | 11 | 5 | 6 | 2 | 1 | 0 | 0 | 0 | 1 | 26 |
| 70-74 | 13 | 4 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 23 |
| 75-79 | 28 | 15 | 9 | 7 | 4 | 3 | 1 | 0 | 4 | 71 |
| 80-84 | 26 | 13 | 12 | 9 | 6 | 2 | 1 | 1 | 7 | 77 |
| 85-89 | 23 | 19 | 12 | 14 | 2 | 5 | 2 | 0 | 3 | 80 |
| 90+ | 18 | 10 | 13 | 5 | 7 | 3 | 2 | 0 | 2 | 60 |
| ALL | 146 | 79 | 59 | 38 | 22 | 13 | 6 | 1 | 17 | 381 |

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 | 12,115 | 6,982 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,152 |
| 45-49 | 5,875 | 8,830 | 7,797 | 0 | 0 | 0 | 0 | 0 | 0 | 7,008 |
| 50-54 | 21,233 | 5,882 | 0 | 564 | 0 | 0 | 0 | 0 | 0 | 15,230 |
| 55-59 | 3,057 | 8,304 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5,305 |
| 60-64 | 12,681 | 20,894 | 308 | 0 | 0 | 0 | 0 | 0 | 0 | 15,869 |
| 65-69 | 31,689 | 28,203 | 16,512 | 16,914 | 729 | 0 | 0 | 0 | 1,086 | 24,012 |
| 70-74 | 23,215 | 26,193 | 34,594 | 0 | 10,031 | 0 | 0 | 0 | 0 | 24,565 |
| 75-79 | 32,366 | 31,684 | 38,849 | 18,801 | 30,563 | 30,994 | 22,878 | 0 | 27,326 | 31,129 |
| 80-84 | 39,944 | 42,403 | 30,887 | 36,445 | 56,104 | 21,542 | 33,055 | 16,239 | 27,915 | 37,829 |
| 85-89 | 38,000 | 43,594 | 28,349 | 41,014 | 43,920 | 46,636 | 35,178 | 0 | 20,349 | 38,364 |
| 90+ | 42,151 | 47,220 | 37,880 | 42,895 | 41,220 | 30,978 | 35,694 | 0 | 40,462 | 41,194 |
| ALL | 31,084 | 34,656 | 30,615 | 33,755 | 38,911 | 35,552 | 32,946 | 16,239 | 26,339 | 32,401 |

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

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-----------|--------|
| ALL | 4,538 | 2,738 | 1,806 | 1,283 | 856 | 462 | 198 | 16 | 448 | 12,345 |



Table 7
Reconciliation of Members
as of June 30, 2023

| | Active Participants | Leave of Absence | Vested Terminated | Other Non-Vested | Retired Participants | Disableds | Survivors and Beneficiaries | Alternate Payees ² | Total |
|----------------------------------|------------------------|---------------------|----------------------|---------------------|-------------------------|-----------|--------------------------------|----------------------------------|--------|
| A. Number as of June 30, 2022 | 3,400 | 128 | 2,514 | 2,915 | 3,813 | 21 | 365 | 54 | 13,210 |
| B. Additions | 262 | 8 | 215 | 131 | 120 | 3 | 33 | 4 | 776 |
| C. Deletions | | | | | | | | | |
| 1. Retirements | (46) | (3) | (71) | | | | | | (120) |
| 2. Disability | - | (1) | (2) | | | | | | (3) |
| 3. Died with Beneficiary | - | - | - | - | (33) | | | | (33) |
| 4. Died without Beneficiary | - | - | - | | (48) | | (25) | - | (73) |
| 5. Terminated - Deferred | (190) | (25) | | | | | | | (215) |
| 6. Terminated - Not Vested | (126) | (5) | | | | | | | (131) |
| 7. Refunds | (6) | (3) | (32) | (78) | | | | | (119) |
| 8. Rehired as Active | 118 | (55) | (21) | (42) | | | | | - |
| 9. Leave of Absence | (52) | 52 | | | | | | | - |
| 10. Repayment of Refund | | | | | | | | | - |
| 11. Expired Benefits | | | | | | | (2) | | (2) |
| 12. Disability to Retirement | | | | | 1 | (1) | | | - |
| D. Data Adjustments ¹ | | | 8 | 81 | 5 | | | | 94 |
| E. Total on June 30, 2023 | 3,360 | 96 | 2,611 | 3,007 | 3,858 | 23 | 371 | 58 | 13,384 |

¹ Includes members not valued in prior valuation who repaid refunds or otherwise restored prior service.

² Includes alternate payees of retired participants (47), disabled participants (1), and survivors (10).



SECTION 3

FUNDING STATUS

Table 8

Actuarial Balance Sheet

as of July 1, 2023

(Dollars in Thousands)

| | | |
|---|----|---------------------|
| A. CURRENT ASSETS (TABLE 1; Line F.4) | \$ | 1,234,225 |
| B. EXPECTED FUTURE ASSETS | | |
| 1. Present Value of Expected Future Statutory Supplemental Contributions* | \$ | 761,296 |
| 2. Present Value of Future Normal Costs | | 264,247 |
| 3. Total Expected Future Assets | | <u>\$ 1,025,543</u> |
| C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS | | <u>\$ 2,259,768</u> |
| D. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS | | <u>\$ 2,155,864</u> |
| E. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (D - C) | | \$ (103,904) |

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

Table 9

Determination of Unfunded Actuarial Accrued Liability (UAAL) and Supplemental Contribution Rate as of July 1, 2023 (Dollars in Thousands)

| | <u>Actuarial Present Value of Projected Benefits</u> | <u>Actuarial Present Value of Future Normal Costs</u> | <u>Actuarial Accrued Liability</u> |
|---|--|---|--|
| A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL) | | | |
| 1. Active Members* | | | |
| a. Retirement Benefits | \$ 793,507 | \$ 184,633 | \$ 608,874 |
| b. Disability Benefits | \$ 11,915 | \$ 4,112 | \$ 7,803 |
| c. Surviving Spouse and Child Benefits | \$ 6,181 | \$ 1,876 | \$ 4,305 |
| d. Vested Withdrawals | \$ 37,304 | \$ 52,429 | \$ (15,125) |
| e. Refund Liability Due to Death or Withdrawal | \$ 2,120 | \$ 21,197 | \$ (19,077) |
| f. Total | <u>\$ 851,027</u> | <u>\$ 264,247</u> | <u>\$ 586,780</u> |
| 2. Deferred Retirements | \$ 125,048 | \$ 0 | \$ 125,048 |
| 3. Former Members without Vested Rights | \$ 3,252 | \$ 0 | \$ 3,252 |
| 4. Annuitants | \$ 1,173,727 | \$ 0 | \$ 1,173,727 |
| 5. One-Time Non-Compounding Benefit Increase | \$ 2,810 | \$ 0 | \$ 2,810 |
| 6. Total | <u>\$ 2,155,864</u> | <u>\$ 264,247</u> | <u>\$ 1,891,617</u> |
| B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) | | | |
| 1. Actuarial Accrued Liability (A.6) | | | \$ 1,891,617 |
| 2. Current Assets (Table 1; Line F.4) | | | <u>\$ 1,234,225</u> |
| 3. Unfunded Actuarial Accrued Liability (B.1 - B.2) | | | <u>\$ 657,392</u> |
| C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE** | | | |
| 1. Present Value of Future Payrolls Through the Amortization Date of June 30, 2048*** | | | \$ 4,613,907 |
| 2. Supplemental Contribution Rate (B.3 / C.1) | | | 14.25% |

* Includes members on leave of absence.

** The amortization of the unfunded actuarial accrued liability (UAAL) using the current amortization method would result in initial payments less than the "interest only" payment on the UAAL; however, expected contributions to the plan are projected to reduce the UAAL due to the current contribution sufficiency. Payments less than the interest only amount would result in the UAAL increasing for an initial period of time.

*** Calculated using 7.0% annual investment return rate.



Table 10

Changes in Unfunded Actuarial Accrued Liability (UAAL) as of July 1, 2023 (Dollars in Thousands)

| | Year Ending June 30, 2023 | | |
|---|--------------------------------|------------------|---|
| | Actuarial Accrued Liability | Current Assets | Unfunded Actuarial Accrued Liability |
| A. UAAL AT BEGINNING OF YEAR | \$ 1,750,421 | \$ 1,203,096 | \$ 547,325 |
| B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING | | | |
| 1. Normal Cost and Expenses | 27,366 | - | 27,366 |
| 2. Benefit Payments | (123,886) | (123,886) | - |
| 3. Contributions | - | 77,108 | (77,108) |
| 4. Interest on A., B.1., B.2. and B.3. | 127,662 | 88,478 | 39,184 |
| 5. Total (B.1. + B.2. + B.3. + B.4.) | <u>\$ 31,142</u> | <u>\$ 41,700</u> | <u>\$ (10,558)</u> |
| C. EXPECTED VALUES AT END OF YEAR (A + B.5) | \$ 1,781,563 | \$ 1,244,796 | \$ 536,767 |
| D. INCREASE / (DECREASE) DUE TO ACTUARIAL LOSSES / (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED | | | |
| 1. Age and Service Retirements | | | \$ 1,692 |
| 2. Disability Retirements | | | (354) |
| 3. Death-in-Service Benefits | | | 111 |
| 4. Withdrawals | | | (4,653) |
| 5. Salary Increases | | | (8,405) |
| 6. Investment Income | | | 10,571 |
| 7. Mortality of Annuitants | | | 105 |
| 8. Other Items | | | (5,297) |
| 9. Total | | | <u>\$ (6,230)</u> |
| E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTIONS (C + D.9) | | | \$ 530,537 |
| F. CHANGE IN UAAL DUE TO PLAN AMENDMENTS | | | 42,650 |
| G. CHANGE IN UAAL DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS | | | 84,205 |
| H. UAAL AT END OF YEAR (E + F + G) | | | <u>\$ 657,392</u> |

Table 11
Determination of Contribution Sufficiency
as of July 1, 2023
(Dollars in Thousands)

| | <u>Percent-of- Payroll</u> | <u>Dollar Amount</u> |
|--|--------------------------------|----------------------|
| A. STATUTORY CONTRIBUTIONS - CHAPTER 354A | | |
| 1. Employee Contributions | 7.75% | \$ 23,693 |
| 2. Employer Contributions | | |
| a. Regular | 9.00% | 27,515 |
| b. Additional | 3.84% | 11,740 |
| 3. Supplemental Contribution | | |
| a. 1996 Legislation | 0.27% | 838 |
| b. 1997 Legislation | 0.92% | 2,827 |
| c. 2014 Legislation | 2.29% | 7,000 |
| d. 2018 Legislation | 1.64% | 5,000 |
| 4. One-Time, Direct State Aid | 5.15% | 15,747 |
| 5. Total | <u>30.86%</u> | <u>\$ 94,360</u> |
| B. REQUIRED CONTRIBUTIONS - CHAPTER 356 | | |
| 1. Normal Cost | | |
| a. Retirement Benefits | 7.03% | \$ 21,492 |
| b. Disability Benefits | 0.15% | 459 |
| c. Surviving Spouse and Child Benefits | 0.07% | 214 |
| d. Vested Withdrawals | 1.86% | 5,686 |
| e. Refund Liability Due to Death or Withdrawal | 0.76% | 2,323 |
| f. Total | <u>9.87%</u> | <u>\$ 30,174</u> |
| 2. Supplemental Contribution Amortization | 14.25% | 43,565 |
| 3. Allowance for Administrative Expenses | 0.38% | 1,162 |
| 4. Total | <u>24.50%</u> | <u>\$ 74,901</u> |
| C. CONTRIBUTION SUFFICIENCY / (DEFICIENCY) (A.4 - B.4)* | 6.36% | 19,459 |

Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date (determined by increasing reported pay for each member by one full year of assumed pay increase, according to the actuarial salary scale, as prescribed by the LCPR Standards for Actuarial Work), plus replacement payroll (described in Table 12) \$ 305,719

* Contribution sufficiency without one-time direct state aid is 1.21%.

SECTION 4

ACTUARIAL METHODS AND ASSUMPTIONS

Table 12

Actuarial Methods and Assumptions as of July 1, 2023

I. ACTUARIAL COST METHOD

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

To the extent that current assets and future Normal Costs do not support participants' expected future benefits, an Unfunded Actuarial Accrued liability ("UAAL") develops. The UAAL is amortized over the closed statutory amortization period ending June 30, 2048 using level percent-of-payroll assuming total payroll increases 2.50% 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

Assumptions are based on an experience study for the five-year period of July 1, 2016 to June 30, 2021, as well as a legislated change to the investment return assumption effective July 1, 2023. Note that significant plan changes effective July 1, 2023 and July 1, 2025 may ultimately result in behavior changes not anticipated in the actuarial assumptions.

A. Demographic Assumptions

Mortality:

1. Healthy and Disabled Annuitant Mortality:

- a. Male: Pub-2010 Male Healthy Teacher Retiree Mortality Table, adjusted for mortality improvements using projection scale MP-2021 from 2010. Rates are multiplied by a factor of 1.03.
- b. Female: Pub-2010 Female Healthy Teacher Retiree Mortality Table, adjusted for mortality improvements using projection scale MP-2021 from 2010. Rates are multiplied by a factor of 1.03.

2. Employee Mortality:

- a. Male: Pub-2010 Male Healthy Teacher Employee Mortality Table, adjusted for mortality improvements using projection scale MP-2021 from 2010.
- b. Female: Pub-2010 Female Healthy Teacher Employee Mortality Table, adjusted for mortality improvements using projection scale MP-2021 from 2010.

Table 12

Actuarial Methods and Assumptions as of July 1, 2023

| Age in <u>2023</u> | Post-Retirement Mortality | |
|-----------------------|------------------------------|---------------|
| | <u>Male</u> | <u>Female</u> |
| 55 | 22 | 20 |
| 56 | 24 | 22 |
| 57 | 27 | 24 |
| 58 | 30 | 26 |
| 59 | 34 | 28 |
| 60 | 38 | 31 |
| 61 | 42 | 33 |
| 62 | 46 | 35 |
| 63 | 51 | 38 |
| 64 | 56 | 41 |
| 65 | 61 | 44 |
| 66 | 67 | 47 |
| 67 | 74 | 51 |
| 68 | 82 | 56 |
| 69 | 91 | 62 |
| 70 | 102 | 69 |
| 71 | 114 | 78 |
| 72 | 128 | 88 |
| 73 | 144 | 100 |
| 74 | 163 | 115 |
| 75 | 185 | 131 |
| 76 | 210 | 151 |
| 77 | 239 | 174 |
| 78 | 272 | 200 |
| 79 | 310 | 230 |
| 80 | 353 | 264 |
| 81 | 402 | 303 |
| 82 | 458 | 347 |
| 83 | 523 | 398 |
| 84 | 597 | 455 |
| 85 | 681 | 520 |
| 86 | 775 | 594 |
| 87 | 881 | 676 |
| 88 | 999 | 769 |
| 89 | 1,130 | 873 |
| 90 | 1,274 | 989 |
| 91 | 1,432 | 1,120 |
| 92 | 1,600 | 1,263 |
| 93 | 1,778 | 1,420 |
| 94 | 1,963 | 1,587 |

Table 12

Actuarial Methods and Assumptions as of July 1, 2023

| Age in <u>2023</u> | Pre-Retirement Mortality | |
|-----------------------|-----------------------------|---------------|
| | <u>Male</u> | <u>Female</u> |
| 25 | 2 | 1 |
| 26 | 2 | 1 |
| 27 | 2 | 1 |
| 28 | 3 | 1 |
| 29 | 3 | 2 |
| 30 | 3 | 2 |
| 31 | 3 | 2 |
| 32 | 4 | 2 |
| 33 | 4 | 2 |
| 34 | 4 | 3 |
| 35 | 5 | 3 |
| 36 | 5 | 3 |
| 37 | 5 | 3 |
| 38 | 5 | 3 |
| 39 | 6 | 4 |
| 40 | 6 | 4 |
| 41 | 6 | 4 |
| 42 | 6 | 4 |
| 43 | 7 | 4 |
| 44 | 7 | 4 |
| 45 | 7 | 5 |
| 46 | 8 | 5 |
| 47 | 8 | 5 |
| 48 | 9 | 6 |
| 49 | 10 | 6 |
| 50 | 10 | 7 |
| 51 | 11 | 7 |
| 52 | 12 | 8 |
| 53 | 14 | 9 |
| 54 | 15 | 10 |
| 55 | 16 | 11 |
| 56 | 18 | 12 |
| 57 | 20 | 13 |
| 58 | 22 | 14 |
| 59 | 24 | 15 |
| 60 | 27 | 17 |
| 61 | 30 | 18 |
| 62 | 33 | 20 |
| 63 | 36 | 22 |
| 64 | 40 | 24 |

Table 12

Actuarial Methods and Assumptions as of July 1, 2023

Rates of Disability for males and females:

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 | 6 |
| 26 | 1 | 51 | 6 |
| 27 | 1 | 52 | 6 |
| 28 | 1 | 53 | 6 |
| 29 | 1 | 54 | 6 |
| 30 | 2 | 55 | 12 |
| 31 | 2 | 56 | 12 |
| 32 | 2 | 57 | 12 |
| 33 | 2 | 58 | 12 |
| 34 | 2 | 59 | 12 |
| 35 | 2 | 60 | 20 |
| 36 | 2 | 61 | 20 |
| 37 | 2 | 62 | 20 |
| 38 | 2 | 63 | 20 |
| 39 | 2 | 64 | 20 |
| 40 | 2 | | |
| 41 | 2 | | |
| 42 | 2 | | |
| 43 | 2 | | |
| 44 | 2 | | |

Table 12

Actuarial Methods and Assumptions as of July 1, 2023

Rates of Termination:

| Year | Number of Terminations per 1,000 Active Members | |
|-----------|--|--------|
| | Male | Female |
| 1 | 450 | 450 |
| 2 | 235 | 200 |
| 3 | 160 | 120 |
| 4 | 75 | 95 |
| 5 | 65 | 75 |
| 6 | 55 | 70 |
| 7 | 40 | 60 |
| 8 | 35 | 50 |
| 9 | 30 | 50 |
| 10 | 30 | 50 |
| 11 | 30 | 40 |
| 12 | 30 | 30 |
| 13 | 30 | 25 |
| 14 | 25 | 20 |
| 15 | 25 | 20 |
| 16 | 25 | 20 |
| 17 | 20 | 20 |
| 18 | 10 | 18 |
| 19 | 10 | 15 |
| 20 & Over | 10 | 10 |

Rates of Retirement:

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

| Age | Male Coordinated Members Eligible for Unreduced Early Retirement | Female Coordinated Members Eligible for Unreduced Early Retirement | Male Coordinated Members Not Eligible for Unreduced Early Retirement | Female Coordinated Members Not Eligible for Unreduced Early Retirement |
|-----------|---|---|---|---|
| 55 | 2,500 | 3,500 | 500 | 500 |
| 56 | 3,500 | 3,000 | 500 | 500 |
| 57 | 3,000 | 2,000 | 500 | 500 |
| 58 | 2,500 | 2,500 | 700 | 500 |
| 59 | 2,500 | 3,000 | 700 | 700 |
| 60 | 2,500 | 3,000 | 1,200 | 900 |
| 61 | 3,000 | 3,000 | 800 | 1,000 |
| 62 | 5,000 | 3,500 | 2,000 | 1,800 |
| 63 | 3,000 | 3,000 | 2,500 | 2,100 |
| 64 | 2,500 | 2,500 | 2,500 | 2,100 |
| 65 | 10,000 | 10,000 | 3,000* | 4,500* |
| 66 | 10,000 | 10,000 | 3,500 | 5,000 |
| 67 | 10,000 | 10,000 | 4,000 | 4,500 |
| 68 | 10,000 | 10,000 | 3,500 | 3,000 |
| 69 | 10,000 | 10,000 | 3,500 | 2,500 |
| 70 & Over | 10,000 | 10,000 | 10,000 | 10,000 |

* 2,800 for male members and 3,200 for female members hired after June 30, 1989 with a Normal Retirement Age equal to 66.

Note: Members reaching age 62 with 30 years of service prior to age 65 are assumed to retire at the same rate as Rule of 90 retirements.



Table 12

Actuarial Methods and Assumptions as of July 1, 2023

B. Economic Assumptions

| | |
|----------------------------------|----------------------------------|
| Investment Return Rate: | 7.00% |
| Price Inflation: | 2.50% per year |
| Payroll Growth (Wage Inflation): | 2.50% per year |
| Future Salary Increases: | Service-based rates shown below: |

Annual Salary Increases

| Year | Ultimate Rate of Annual Salary Increases | Year | Ultimate Rate of Annual Salary Increases |
|------|--|-----------|--|
| 1 | 8.00% | 21 | 2.70% |
| 2 | 6.75% | 22 | 2.50% |
| 3 | 6.50% | 23 & Over | 2.50% |
| 4 | 6.25% | | |
| 5 | 6.00% | | |
| 6 | 5.75% | | |
| 7 | 5.50% | | |
| 8 | 5.25% | | |
| 9 | 5.00% | | |
| 10 | 4.75% | | |
| 11 | 4.50% | | |
| 12 | 4.25% | | |
| 13 | 4.00% | | |
| 14 | 3.75% | | |
| 15 | 3.50% | | |
| 16 | 3.40% | | |
| 17 | 3.30% | | |
| 18 | 3.20% | | |
| 19 | 3.10% | | |
| 20 | 2.90% | | |

Asset Value: The assets are valued based on a five-year moving average of expected and market values (five-year average actuarial value). At the end of each plan year, an average asset value is calculated as the average of the market asset value at the beginning and end of the fiscal year net of investment income for the fiscal year. The investment gain or (loss) is taken as the excess of actual investment income over the expected investment income based on the average asset value as calculated above. The investment gain or (loss) is recognized over five years at 20% per year. The asset value is the sum of the market asset value plus the scheduled recognition of investment gains or (losses) during the current and the preceding four fiscal years.

Table 12

Actuarial Methods and Assumptions as of July 1, 2023

C. Other Assumptions

| | |
|---|---|
| Marital Status: | It is assumed that 75% of male members and 60% of female members have an eligible spouse. The male spouse is assumed to be two years older than the female spouse. Married members are assumed to have two dependent children. |
| Deferred Benefit Commencement: | Basic Plan members who terminate vested are assumed to commence benefits at age 61. Coordinated Plan members are assumed to commence benefits at age 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) are expressed as a percentage-of-payroll and then applied to current projected payroll. |
| Refund of Contributions: | All employees withdrawing after becoming eligible for a deferred benefit take the larger of their contributions accumulated with interest or the value of their deferred benefit. Account balances for deferred members accumulate interest until the assumed benefit commencement date and are discounted back to the valuation date. |
| Allowance for Combined Service Annuity: | 20.0% load on liabilities for former, vested members. 9.0% load on liabilities for former, non-vested members. |
| Missing Salary and Salary Minimums: | Active members with reported salaries of \$100 or less were assumed to have the average non-zero active salary. Active members with salaries less than those reported at the prior valuation date are valued using their prior salary amount. Active members who have been hired within one year of the valuation date have had their pay annualized by dividing by months of service credited, not to exceed the average non-zero active salary. For members on leave of absence at valuation date who were not on leave at the prior valuation date, the prior year's valuation pay was used. |
| Missing Data for Deferred Vested Members: | Deferred vested members without a reported benefit and without salary information were assumed to have a final average salary of \$40,000. |
| Decrement Timing: | Retirement and Termination: end of valuation year – consistent with retirements and terminations occurring at the end of the school year. Death and Disability: middle of valuation year. |
| Eligibility Testing: | Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur. |
| Service Credit Accruals: | It is assumed that members accrue one year of service credit per year. Exact fractional service is used to determine the amount of benefit payable. |

Table 12

Actuarial Methods and Assumptions as of July 1, 2023

Supplemental Contributions: 1996 legislation provides for a variable amortization aid contribution paid annually on July 15. We assumed the annual amortization aid contribution will equal \$838,000, which was the actual contribution for the most recent fiscal year. Additionally, annual supplemental contributions equal to \$14,827,000 are scheduled to be paid each October 1.

The contributions described herein will continue until the plan is 100% funded or until June 30, 2048, whichever occurs earlier.

Projected Annual Payroll Calculation:

The census data as of July 1, 2023 reflects retirements and terminations occurring during the months of May and June; however, it does not necessarily reflect the replacements hired to fill their positions who may have hire dates in August and September. We assumed that May and June retirements are replaced by members coming in at the B.A. entry salary level of \$49,181; the Projected Annual Payroll for the fiscal year ending June 30, 2024 includes this replacement salary amount.

Changes in Actuarial Methods and Assumptions Since the Prior Valuation:

The statutory investment return rate was changed from 7.5% to 7.0%.

The assumed wage inflation assumption was changed from 3.0% to 2.5%.

Additional demographic assumption changes, as recommended in the most recent experience study, dated December 8, 2022:

- The base mortality table was changed from RP-2014 mortality table with adjustments to Pub-2010 for Teachers, with adjustments, and future improvement projected using MP-2021.
- Revised rates of retirement which generally result in more expected normal retirements and fewer early retirements.
- Revised rates of termination are generally lower, especially after the first year of employment for males and females.
- Reduced rates of disability.
- Retirement age assumption for Coordinated deferred members was changed from age 62 to age 63.
- Revised merit and seniority salary increase rates are 19 basis points lower in total. When combined with the change in wage inflation, gross salary increase rates are 69 basis points lower in total.

Members reaching age 62 with 30 years of service prior to age 65 are assumed to retire at the same rate as Rule of 90 retirements.

SECTION 5

BASIC PLAN

Table 3A

Basic Active Members as of June 30, 2023

There are no remaining Basic Active Members.

Table 4A

Basic Service Retirements as of June 30, 2023

| Member Age | Years Retired | | | | | | | | | |
|------------|---------------|-----|-------|-------|-------|-------|-------|-------|-----------|-------|
| | <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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65-69 | 2 | 11 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 70-74 | 0 | 26 | 70 | 109 | 0 | 0 | 0 | 0 | 0 | 205 |
| 75-79 | 1 | 4 | 50 | 194 | 123 | 0 | 0 | 0 | 0 | 372 |
| 80-84 | 0 | 2 | 7 | 39 | 163 | 76 | 1 | 0 | 0 | 288 |
| 85-89 | 0 | 0 | 0 | 1 | 55 | 112 | 36 | 0 | 0 | 204 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 43 | 35 | 34 | 3 | 115 |
| ALL | 3 | 43 | 145 | 343 | 341 | 231 | 72 | 34 | 3 | 1,215 |

AVERAGE ANNUAL BENEFIT

| Member Age | Years Retired | | | | | | | | | |
|------------|---------------|--------|--------|--------|--------|--------|--------|--------|-----------|--------|
| | <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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65-69 | 20,309 | 35,827 | 45,658 | 0 | 0 | 0 | 0 | 0 | 0 | 40,534 |
| 70-74 | 0 | 41,539 | 45,536 | 47,123 | 0 | 0 | 0 | 0 | 0 | 45,873 |
| 75-79 | 152,286 | 34,683 | 50,770 | 46,512 | 40,754 | 0 | 0 | 0 | 0 | 45,338 |
| 80-84 | 0 | 75,334 | 47,403 | 48,034 | 42,687 | 41,170 | 30,121 | 0 | 0 | 43,308 |
| 85-89 | 0 | 0 | 0 | 58,627 | 53,276 | 50,131 | 36,980 | 0 | 0 | 48,700 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 57,686 | 36,718 | 30,866 | 22,788 | 42,464 |
| ALL | 64,301 | 41,012 | 47,446 | 46,915 | 43,698 | 48,589 | 36,757 | 30,866 | 22,788 | 45,117 |

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-------|-------|--------|--------|--------|-------|-------|-----------|--------|
| ALL | 193 | 1,764 | 6,880 | 16,092 | 14,901 | 11,224 | 2,647 | 1,049 | 68 | 54,817 |



Table 5A

Basic Disability Retirements as of June 30, 2023

There are no remaining Basic Disability Retirees.

Table 6A

Basic Survivors as of June 30, 2023

| Age | Years Since Member Death | | | | | | | | | ALL |
|------------|--------------------------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|------------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | |
| <45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-54 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 55-59 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 60-64 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 65-69 | 3 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 1 | 10 |
| 70-74 | 7 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 11 |
| 75-79 | 16 | 7 | 7 | 5 | 3 | 3 | 1 | 0 | 3 | 45 |
| 80-84 | 23 | 13 | 8 | 5 | 6 | 2 | 1 | 1 | 5 | 64 |
| 85-89 | 22 | 18 | 12 | 12 | 2 | 5 | 2 | 0 | 3 | 76 |
| 90+ | 18 | 10 | 13 | 5 | 7 | 3 | 2 | 0 | 2 | 60 |
| ALL | 93 | 56 | 45 | 28 | 19 | 13 | 6 | 1 | 14 | 275 |

AVERAGE ANNUAL BENEFIT

| Age | Years Since Member Death | | | | | | | | | ALL |
|------------|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | |
| <45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-54 | 68,702 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 68,702 |
| 55-59 | 3,573 | 4,763 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,970 |
| 60-64 | 3,573 | 15,746 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,312 |
| 65-69 | 44,640 | 35,160 | 25,927 | 14,725 | 0 | 0 | 0 | 0 | 1,086 | 29,783 |
| 70-74 | 29,636 | 49,634 | 45,350 | 0 | 3,350 | 0 | 0 | 0 | 0 | 31,921 |
| 75-79 | 45,182 | 50,639 | 44,870 | 20,700 | 37,277 | 30,994 | 22,878 | 0 | 24,830 | 39,937 |
| 80-84 | 42,681 | 42,403 | 35,935 | 53,076 | 56,104 | 21,542 | 33,055 | 16,239 | 30,633 | 41,686 |
| 85-89 | 39,656 | 45,596 | 28,349 | 44,237 | 43,920 | 46,636 | 35,178 | 0 | 20,349 | 39,692 |
| 90+ | 42,151 | 47,220 | 37,880 | 42,895 | 41,220 | 30,978 | 35,694 | 0 | 40,462 | 41,194 |
| ALL | 40,393 | 42,613 | 35,615 | 40,319 | 43,589 | 35,552 | 32,946 | 16,239 | 26,480 | 39,089 |

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

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|------------|--------------|--------------|--------------|--------------|------------|------------|------------|-----------|------------|---------------|
| ALL | 3,757 | 2,386 | 1,603 | 1,129 | 828 | 462 | 198 | 16 | 371 | 10,749 |



Table 11A
Basic Determination of Contribution Sufficiency
as of July 1, 2023
(Dollars in Thousands)

There are no remaining Basic Active Members.

Summary of Benefit Provisions for Basic Members as of July 1, 2023

PARTICIPANTS

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

As of July 1, 2023, there are no remaining active Basic Members.

ACCREDITED SERVICE

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

ALLOWABLE ST. PAUL SERVICE

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

SALARY

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

Summary of Benefit Provisions for Basic Members as of July 1, 2023

AVERAGE SALARY

Average of the highest 5 years of salary during the last 10 years of St. Paul service while making contributions.

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.

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 percent reduction for each month the member is under age 65. If the member has 25 years of Accredited Service, the reduction is taken from age 60, therefore no reduction is required if the member is age 60 or older. No reduction is taken if age plus years of Accredited Service totals at least 90.
- 2.50 percent of Average Salary per year of Accredited Service, subject to a maximum of 40 years, reduced for each month the member is under age 65 using linear interpolation of the table listed below. The ultimate factors shown below for retirements on or after July 1, 2024 will be phased-in over a 60-month period starting July 1, 2019.

| Age at Retirement | Retirements Prior to July 1, 2019 | Retirements on or after July 1, 2024 |
|-------------------|--------------------------------------|---|
| 55 | 0.5376 | 0.4200 |
| 56 | 0.5745 | 0.4600 |
| 57 | 0.6092 | 0.5000 |
| 58 | 0.6419 | 0.5400 |
| 59 | 0.6726 | 0.5800 |
| 60 | 0.7354 | 0.6500 |
| 61 | 0.7947 | 0.7200 |
| 62 | 0.8507 | 0.7900 |
| 63 | 0.9035 | 0.8600 |
| 64 | 0.9533 | 0.9300 |
| 65 | 1.0000 | 1.0000 |



Summary of Benefit Provisions for Basic Members as of July 1, 2023

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

Benefit computed under law in effect at termination and payable as a normal or early retirement benefit. For members hired on or before June 30, 2006, the benefit is augmented at 3.00 percent compounded annually from the 1st of the month following termination until the January 1st after turning age 55 and then augmented at 5.00 percent compounded annually from that date to July 1, 2012. For members hired after June 30, 2006, the benefit is augmented at 2.50 percent compounded annually from the 1st of the month following termination to July 1, 2012. Augmentation for all members, regardless of hire date, changed to 2.00 percent as of July 1, 2012 for the portion of benefit deferral which occurs after June 30, 2012 to June 30, 2019. After June 30, 2019, benefits are not augmented.

PRE-RETIREMENT SURVIVOR BENEFIT (Family Benefit)

Eligibility

Active member with five years of Accredited Service.

Benefit

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



Summary of Benefit Provisions for Basic Members as of July 1, 2023

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 death or retirement.

Benefit

Retirement benefit earned at the time of death or retirement, whichever is earlier, reduced by the use of 100 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.

Benefit

Member contributions with 6.00 percent interest accrued through June 30, 2011, 4.00 percent interest accrued through June 30, 2018, and 3.00 percent interest thereafter.

REEMPLOYED ANNUITANTS

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

NORMAL FORM OF RETIREMENT BENEFITS

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

BENEFIT INCREASES

1.0 percent per year on January 1.

An additional one-time, non-compounding benefit increase of 3.0 percent, payable for calendar year 2024 in a lump sum by March 31, 2024, to benefit recipients who have been receiving a benefit for at least 12 full months as of June 30, 2023.

For retirements on and after July 1, 2024, the first benefit increase is delayed until the retiree reaches Normal Retirement Age (not applicable to Rule of 90 retirees, Rule of 62/30 retirees, disability benefit recipients, or survivors).



Summary of Benefit Provisions for Basic Members as of July 1, 2023

CHANGES IN PLAN PROVISIONS

A one-time, non-compounding benefit increase of 3.00 percent will be payable in a lump sum for calendar year 2024 by March 31, 2024.

SECTION 6

COORDINATED PLAN

Table 3B

Coordinated Active Members as of June 30, 2023

All remaining active members are Coordinated. Please refer to Table 3 for active member statistics.

Table 4B

Coordinated Service Retirements as of June 30, 2023

| 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 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 60-64 | 256 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 335 |
| 65-69 | 318 | 282 | 103 | 0 | 0 | 0 | 0 | 0 | 0 | 703 |
| 70-74 | 94 | 336 | 268 | 77 | 0 | 0 | 0 | 0 | 0 | 775 |
| 75-79 | 9 | 66 | 220 | 142 | 34 | 1 | 0 | 0 | 0 | 472 |
| 80-84 | 2 | 14 | 26 | 95 | 69 | 18 | 0 | 0 | 0 | 224 |
| 85-89 | 0 | 4 | 5 | 9 | 32 | 24 | 4 | 0 | 0 | 78 |
| 90+ | 0 | 0 | 2 | 3 | 3 | 14 | 7 | 1 | 0 | 30 |
| ALL | 752 | 781 | 624 | 326 | 138 | 57 | 11 | 1 | 0 | 2,690 |

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 | 27,569 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27,569 |
| 60-64 | 29,835 | 19,241 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27,337 |
| 65-69 | 22,477 | 23,040 | 18,093 | 0 | 0 | 0 | 0 | 0 | 0 | 22,060 |
| 70-74 | 12,963 | 19,241 | 20,771 | 16,691 | 0 | 0 | 0 | 0 | 0 | 18,755 |
| 75-79 | 6,158 | 15,377 | 20,613 | 19,183 | 14,593 | 20,949 | 0 | 0 | 0 | 18,742 |
| 80-84 | 7,183 | 6,107 | 14,669 | 16,659 | 17,326 | 10,169 | 0 | 0 | 0 | 15,368 |
| 85-89 | 0 | 8,103 | 5,914 | 15,425 | 15,469 | 15,752 | 8,992 | 0 | 0 | 14,228 |
| 90+ | 0 | 0 | 16,691 | 2,608 | 16,148 | 21,067 | 12,700 | 6,194 | 0 | 15,989 |
| ALL | 24,051 | 19,994 | 19,887 | 17,603 | 16,196 | 15,385 | 11,352 | 6,194 | 0 | 20,480 |

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|------------|---------------|---------------|---------------|--------------|--------------|------------|------------|----------|-----------|---------------|
| ALL | 18,086 | 15,615 | 12,409 | 5,738 | 2,235 | 877 | 125 | 6 | 0 | 55,091 |



Table 5B

Coordinated Disability Retirements as of June 30, 2023

All remaining disability retirements are Coordinated. Please refer to Table 5 for disability retirement statistics.

Table 6B

Coordinated Survivors as of June 30, 2023

| Age | Years Since Member Death | | | | | | | | | ALL |
|-------|--------------------------|-----|-------|-------|-------|-------|-------|-------|-----------|-----|
| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | |
| <45 | 13 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 45-49 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 50-54 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 |
| 55-59 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 60-64 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 65-69 | 8 | 3 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 16 |
| 70-74 | 6 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| 75-79 | 12 | 8 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 26 |
| 80-84 | 3 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 2 | 13 |
| 85-89 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ALL | 53 | 23 | 14 | 10 | 3 | 0 | 0 | 0 | 3 | 106 |

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 | 12,115 | 6,982 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,152 |
| 45-49 | 5,875 | 8,830 | 7,797 | 0 | 0 | 0 | 0 | 0 | 0 | 7,008 |
| 50-54 | 5,410 | 5,882 | 0 | 564 | 0 | 0 | 0 | 0 | 0 | 4,535 |
| 55-59 | 2,541 | 10,074 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,307 |
| 60-64 | 17,235 | 41,485 | 308 | 0 | 0 | 0 | 0 | 0 | 0 | 19,066 |
| 65-69 | 26,832 | 23,564 | 7,097 | 19,102 | 729 | 0 | 0 | 0 | 0 | 20,404 |
| 70-74 | 15,724 | 18,379 | 23,838 | 0 | 16,712 | 0 | 0 | 0 | 0 | 17,823 |
| 75-79 | 15,278 | 15,099 | 17,778 | 14,053 | 10,421 | 0 | 0 | 0 | 34,815 | 15,886 |
| 80-84 | 18,960 | 0 | 20,791 | 15,656 | 0 | 0 | 0 | 0 | 21,120 | 18,839 |
| 85-89 | 1,587 | 7,550 | 0 | 21,675 | 0 | 0 | 0 | 0 | 0 | 13,122 |
| 90+ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ALL | 14,749 | 15,281 | 14,542 | 15,374 | 9,288 | 0 | 0 | 0 | 25,685 | 15,051 |

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

| | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & Over | ALL |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-----------|-------|
| ALL | 782 | 351 | 203 | 154 | 28 | 0 | 0 | 0 | 77 | 1,595 |



Table 11B
Coordinated Determination of Contribution Sufficiency
as of July 1, 2023
(Dollars in Thousands)

All remaining active members are Coordinated. Please refer to Table 11 for Normal Cost and payroll of active members.

Summary of Benefit Provisions for Coordinated Members as of July 1, 2023

STATUTORY CONTRIBUTIONS

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

| <u>Contribution after June 30,</u> | <u>Member</u> | <u>Employer Regular</u> | <u>Employer Additional</u> |
|------------------------------------|---------------|-----------------------------|--------------------------------|
| 2022 | 7.50% | 8.80% | 3.84% |
| 2023 | 7.75% | 9.00% | 3.84% |
| 2025 | 9.00% | 9.75% | 3.84% |

SUPPLEMENTAL CONTRIBUTIONS

1996 legislation provides for a variable amortization aid contribution paid annually on July 15. The actual contribution during the past fiscal year was \$838,000.

Annual supplemental contributions of \$14,827,000 will be contributed by the State of Minnesota each October 1. The contributions will continue until the plan is 100% funded or until June 30, 2048, whichever occurs earlier.

2023 legislation provides for a one-time state aid contribution in the amount of \$15,746,887, to be paid on October 1, 2023.

PARTICIPANTS

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

ALLOWABLE SERVICE

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



Summary of Benefit Provisions for Coordinated Members as of July 1, 2023

SALARY

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

AVERAGE SALARY

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

NORMAL RETIREMENT BENEFIT

Eligibility

Three years of Allowable Service. The eligibility age is 65 for those hired before July 1, 1989. The eligibility age is the earlier of eligibility for full Social Security retirement benefits to a maximum of age 66 for those hired on or after July 1, 1989 and retired prior to July 1, 2025. Beginning July 1, 2025, the eligibility age is 65 for all members. A Proportionate Retirement Annuity is available at Normal Retirement Age with one year of Allowable Service.

Benefit

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

Summary of Benefit Provisions for Coordinated Members as of July 1, 2023

EARLY RETIREMENT BENEFIT

Eligibility

Attainment of age 55 and 3 years of Allowable Service.

Benefit

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

- a) For the first 10 years of Allowable Service, 1.20 percent of Average Salary for each year of Allowable Service rendered prior to July 1, 2015, plus 1.40 percent of Average Salary for each year of Allowable Service rendered after June 30, 2015. Additionally, for each subsequent year of Allowable Service in excess of 10 years, 1.70 percent of Average Salary for each year rendered prior to July 1, 2015, plus 1.90 percent of Average Salary for each year rendered after June 30, 2015. There is a reduction of 0.25 percent for each month the member is under age 65, or under age 62 with 30 years of Allowable Service. No reduction applies if the age plus years of service totals at least 90.

- b) 1.70 percent of Average Salary per year of Allowable Service rendered before July 1, 2015 and 1.90 percent of Average Salary for each year of service rendered after June 30, 2015 reduced for each month the member is under the Normal Retirement Age using linear interpolation of the factors in the tables listed below. The ultimate factors shown below for retirements on or after July 1, 2024 will be phased in over a sixty-month period starting July 1, 2019. Effective July 1, 2023, no reduction applies if the member is at least age 62 with at least 30 years of service.

| Normal Retirement Age: Age at Retirement | <u>Under Age 62 or Less than 30 Years of Service</u> | | | | <u>Prior to July 1, 2023</u> | |
|---|--|--------|---|--------|---|--------|
| | Retirements Prior to July 1, 2019 | | Retirements on or after July 1, 2024 | | Age 62 or Older with 30 Years of Service | |
| | 65 | 66 | 65 | 66 | 65 | 66 |
| 55 | 0.5376 | 0.4592 | 0.4200 | 0.3500 | | |
| 56 | 0.5745 | 0.4992 | 0.4600 | 0.3900 | | |
| 57 | 0.6092 | 0.5370 | 0.5000 | 0.4300 | | |
| 58 | 0.6419 | 0.5726 | 0.5400 | 0.4700 | | |
| 59 | 0.6726 | 0.6062 | 0.5800 | 0.5100 | | |
| 60 | 0.7354 | 0.6726 | 0.6500 | 0.5800 | | |
| 61 | 0.7947 | 0.7354 | 0.7200 | 0.6500 | | |
| 62 | 0.8507 | 0.7947 | 0.7900 | 0.7200 | 0.8831 | 0.8389 |
| 63 | 0.9035 | 0.8507 | 0.8600 | 0.7900 | 0.9246 | 0.8831 |
| 64 | 0.9533 | 0.9035 | 0.9300 | 0.8600 | 0.9635 | 0.9246 |
| 65 | 1.0000 | 0.9533 | 1.0000 | 0.9300 | 1.0000 | 0.9635 |
| 66 | | 1.0000 | | 1.0000 | | 1.0000 |



Summary of Benefit Provisions for Coordinated Members as of July 1, 2023

DISABILITY RETIREMENT BENEFIT

Eligibility

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

Benefit

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

DEFERRED RETIREMENT BENEFIT

Eligibility

Three years of Allowable Service.

Benefit

Benefit computed under law in effect at termination and payable as a normal or early retirement benefit. For members hired on or before June 30, 2006, the benefit is augmented at 3.00 percent compounded annually from the 1st of the month following termination until the January 1st after turning age 55 and then augmented at 5.00 percent compounded annually from that date to July 1, 2012. For members hired after June 30, 2006, the benefit is augmented at 2.50 percent compounded annually from the 1st of the month following termination to July 1, 2012. Augmentation for all members, regardless of hire date, changed to 2.00 percent as of July 1, 2012 for the portion of benefit deferral which occurs after June 30, 2012 to June 30, 2019. After June 30, 2019, benefits are not augmented.

SURVIVOR BENEFIT (Active Members)

Eligibility

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

Benefit

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

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



Summary of Benefit Provisions for Coordinated Members as of July 1, 2023

REFUND OF CONTRIBUTIONS

Eligibility

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

Benefit

Member contributions with 6.00 percent interest accrued through June 30, 2011, 4.00 percent interest accrued through June 30, 2018, and 3.00 percent interest thereafter.

REEMPLOYED ANNUITANTS

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

NORMAL FORM OF RETIREMENT BENEFITS

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

BENEFIT INCREASES

1.0 percent per year on January 1.

An additional one-time, non-compounding benefit increase of 1.5 percent, payable for calendar year 2024 in a lump sum by March 31, 2024, to benefit recipients who have been receiving a benefit for at least 12 full months as of June 30, 2023.

For retirements on and after July 1, 2024, the first benefit increase is delayed until the retiree reaches Normal Retirement Age (not applicable to Rule of 90 retirees, Rule of 62/30 retirees, disability benefit recipients, or survivors).

CHANGES IN PLAN PROVISIONS

Member contributions will increase from 7.50% of pay to 7.75% of pay effective July 1, 2023, and from 7.75% of pay to 9.00% of pay effective July 1, 2025. Employer contributions will increase from 8.80% to 9.00% of pay effective July 1, 2023, and from 9.00% to 9.75% of pay effective July 1, 2025.

An additional one-time direct state aid contribution of \$15.7 million will be contributed to the Plan on October 1, 2023.

The Normal Retirement will change to age 65 for members hired after July 1, 1989, effective July 1, 2025.

Benefits at age 62 and 30 years of service are unreduced, effective July 1, 2023.

A one-time, non-compounding benefit increase of 1.5 percent will be payable in a lump sum for calendar year 2024 by March 31, 2024.



SECTION 7

ADDITIONAL DISCLOSURES

Table 14
Additional Disclosures – Schedule of Funding Progress
(Dollars in Thousands)

| Actuarial Valuation Date | Actuarial Value of Assets (A) | Actuarial Accrued Liability (B) | Unfunded AAL (UAAL) (B)-(A) | Funded Ratio (A)/(B) | Actual Covered Payroll (Previous FY) (C) | UAAL as % of Covered Payroll ((B)-(A))/(C) |
|---------------------------------|--------------------------------------|--|------------------------------------|-----------------------------|---|---|
| 07/01/98 | \$ 625,053 | \$ 861,584 | \$ 236,531 | 72.55% | \$ 168,564 | 140.32% |
| 07/01/99 | 704,233 | 938,847 | 234,614 | 75.01% | 178,254 | 131.62% |
| 07/01/00 | 801,823 | 998,253 | 196,430 | 80.32% | 187,950 | 104.51% |
| 07/01/01 | 869,045 | 1,060,931 | 191,886 | 81.91% | 202,915 | 94.56% |
| 07/01/02 | 899,572 | 1,141,300 | 241,728 | 78.82% | 201,456 | 119.99% |
| 07/01/03 | 898,760 | 1,189,361 | 290,601 | 75.57% | 205,655 | 141.31% |
| 07/01/04 | 898,860 | 1,251,460 | 352,600 | 71.82% | 221,685 | 159.05% |
| 07/01/05 | 905,292 | 1,299,832 | 394,540 | 69.65% | 223,762 | 176.32% |
| 07/01/06 | 938,919 | 1,346,072 | 407,153 | 69.75% | 226,351 | 179.88% |
| 07/01/07 | 1,015,722 | 1,380,151 | 364,429 | 73.59% | 229,172 | 159.02% |
| 07/01/08 | 1,075,951 | 1,432,040 | 356,089 | 75.13% | 235,993 | 150.89% |
| 07/01/09 | 1,049,954 | 1,454,314 | 404,360 | 72.20% | 243,166 | 166.29% |
| 07/01/10 | 1,001,444 | 1,471,630 | 470,185 | 68.05% | 239,996 | 195.91% |
| 07/01/11 | 972,718 | 1,389,875 | 417,157 | 69.99% | 239,738 | 174.01% |
| 07/01/12 | 911,930 | 1,471,216 | 559,286 | 61.98% | 239,053 | 233.96% |
| 07/01/13 | 886,296 | 1,467,350 | 581,054 | 60.40% | 247,432 | 234.83% |
| 07/01/14 | 947,972 | 1,533,603 | 585,631 | 61.81% | 259,740 | 225.47% |
| 07/01/15 | 999,736 | 1,596,770 | 597,034 | 62.61% | 263,844 | 226.28% |
| 07/01/16 | 1,007,360 | 1,592,570 | 585,210 | 63.25% | 258,787 | 226.14% |
| 07/01/17 | 1,038,467 | 1,611,208 | 572,741 | 64.45% | 264,342 | 216.67% |
| 07/01/18 | 1,067,675 | 1,676,193 | 608,518 | 63.70% | 263,122 | 231.27% |
| 07/01/19 | 1,079,552 | 1,691,721 | 612,169 | 63.81% | 268,614 | 227.90% |
| 07/01/20 | 1,090,243 | 1,691,236 | 600,993 | 64.46% | 274,667 | 218.81% |
| 07/01/21 | 1,159,954 | 1,729,621 | 569,667 | 67.06% | 279,916 | 203.51% |
| 07/01/22 | 1,203,096 | 1,750,421 | 547,325 | 68.73% | 304,227 | 179.91% |
| 07/01/23 | 1,234,225 | 1,891,617 | 657,392 | 65.25% | 296,674 | 221.59% |

Table 15

Additional Disclosures – Schedule of Employer Contributions (Dollars in Thousands)

| Year Ended June 30 | Total Actuarially Required Contribution (ARC) Rate (A) | Actual Covered Payroll (B) | Actual Member Contributions (C) | Total ARC Net of Member Contributions (D) = [(A)*(B)]-(C) | Actual Employer Contributions ⁽¹⁾ (E) | Percentage Contributed (E) / (D) |
|-----------------------|--|-------------------------------------|---------------------------------------|--|--|--|
| 1999 | 18.82% | \$ 178,254 | \$ 11,649 | \$ 21,898 | \$ 21,066 | 96.20% |
| 2000 | 18.09% | 187,950 | 13,184 | 20,816 | 22,622 | 108.68 |
| 2001 | 16.57% | 202,915 | 13,170 | 20,453 | 23,569 | 115.23 |
| 2002 | 15.81% | 201,456 | 14,468 | 17,382 | 24,216 | 139.32 |
| 2003 | 18.56% ⁽²⁾ | 205,655 | 14,222 | 23,948 | 23,370 | 97.59 |
| 2004 | 20.36% | 221,685 | 14,308 | 30,827 | 23,771 | 77.11 |
| 2005 | 21.59% | 223,762 | 13,587 | 34,723 | 23,833 | 68.64 |
| 2006 | 23.78% | 226,351 | 13,453 | 40,373 | 24,015 | 59.48 |
| 2007 | 24.55% | 229,172 | 13,438 | 42,823 | 24,117 | 56.32 |
| 2008 | 23.40% | 235,993 | 13,642 | 41,580 | 24,285 | 58.40 |
| 2009 | 17.63% | 243,166 | 13,864 | 29,007 | 24,844 | 85.65 |
| 2010 | 18.40% | 239,996 | 13,832 | 30,328 | 25,126 | 82.85 |
| 2011 | 19.84% | 239,738 | 13,745 | 33,819 | 25,090 | 74.19 |
| 2012 | 18.37% | 239,053 | 14,117 | 29,797 | 25,109 | 84.27 |
| 2013 | 22.87% | 247,432 | 15,164 | 41,424 | 26,445 | 63.84 |
| 2014 | 22.13% | 259,740 | 16,564 | 40,916 | 35,197 | 86.02 |
| 2015 | 21.94% | 263,844 | 17,567 | 40,320 | 36,711 | 91.05 |
| 2016 | 22.26% | 258,787 | 18,538 | 39,068 | 37,228 | 95.29 |
| 2017 | 22.44% | 264,342 | 20,146 | 39,172 | 38,350 | 97.90 |
| 2018 | 22.16% | 263,122 | 20,112 | 38,196 | 39,209 | 102.65 |
| 2019 | 21.54% | 268,614 | 20,626 | 37,233 | 46,981 | 126.18 |
| 2020 | 21.87% | 274,667 | 20,889 | 39,181 | 49,804 | 127.11 |
| 2021 | 21.58% | 279,916 | 21,334 | 39,072 | 50,916 | 130.31 |
| 2022 | 20.51% | 304,227 | 23,099 | 39,298 | 54,735 | 139.28 |
| 2023 | 19.96% | 296,674 | 22,420 | 36,796 | 54,688 | 148.62 |

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

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

Table 16

Additional Disclosures – Development of the Fund (Dollars in Thousands)

| Year Ended June 30 | Employer Contributions | Employee Contributions | Supplemental Contributions* | Actuarial Net Investment Return | Administrative Expenses | Benefit Payments | Actuarial Value of Assets EOY |
|-----------------------|---------------------------|---------------------------|--------------------------------|---------------------------------------|----------------------------|---------------------|-------------------------------------|
| 2008 | \$ 20,775 | \$ 13,642 | \$ 3,509 | \$ 112,804 | \$ 691 | \$ 89,810 | \$ 1,075,951 |
| 2009 | 21,501 | 13,864 | 3,343 | 28,924 | 605 | 93,024 | 1,049,954 |
| 2010 | 21,018 | 13,832 | 4,108 | 9,496 | 602 | 96,362 | 1,001,444 |
| 2011 | 21,013 | 13,745 | 4,077 | 31,391 | 722 | 98,230 | 972,718 |
| 2012 | 21,452 | 14,117 | 3,658 | 3,447 | 736 | 102,726 | 911,930 |
| 2013 | 22,780 | 15,164 | 3,665 | 37,919 | 751 | 104,411 | 886,296 |
| 2014 | 24,532 | 16,564 | 10,665 | 117,499 | 739 | 106,845 | 947,972 |
| 2015 | 25,505 | 17,567 | 11,206 | 107,987 | 748 | 109,753 | 999,736 |
| 2016 | 26,433 | 18,538 | 10,795 | 64,402 | 749 | 111,795 | 1,007,360 |
| 2017 | 27,543 | 20,146 | 10,807 | 87,243 | 889 | 113,743 | 1,038,467 |
| 2018 | 28,199 | 20,112 | 11,010 | 86,771 | 786 | 116,098 | 1,067,675 |
| 2019 | 30,919 | 20,626 | 16,062 | 62,114 | 764 | 117,080 | 1,079,552 |
| 2020 | 33,861 | 20,889 | 15,943 | 59,348 | 788 | 118,562 | 1,090,243 |
| 2021 | 35,111 | 21,334 | 15,805 | 117,492 | 779 | 119,252 | 1,159,954 |
| 2022 | 38,731 | 23,099 | 16,004 | 87,791 | 927 | 121,556 | 1,203,096 |
| 2023 | 38,586 | 22,420 | 16,102 | 79,100 | 1,193 | 123,886 | 1,234,225 |

* Includes employer contributions for reemployed annuitants.

Table 17

Additional Disclosures – Supplementary Information

| | |
|-------------------------------------|--|
| Valuation Date | July 1, 2023 |
| Actuarial Cost Method | Entry Age Normal |
| Amortization Method | Level Percent of Pay, Closed, Assuming Two and a Half Percent Payroll Growth |
| Amortization Period | Closed Period ending June 30, 2048 |
| Asset Valuation Method | 5-Year Smoothed Market |
| Actuarial Assumptions: | |
| Investment rate of return | 7.00 percent |
| Projected salary increases | 2.50 percent - 8.00 percent; service based |
| Plan Membership: | |
| Active Members | 3,456 |
| Retirees and Beneficiaries | 4,310 |
| Terminated Vested Members | 2,611 |
| Other Non-Vested Terminated Members | <u>3,007</u> |
| Total | 13,384 |