St. Paul Teachers' Retirement Fund Association

Actuarial Valuation as of July 1, 2024

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November 12, 2024

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, 2024. This report provides, among other things, the required annual contribution rate of the Fund for the Plan Year commencing July 1, 2024 and ending on June 30, 2025, 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, 2024 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 methods and assumptions 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.

We have assessed that the contribution rate calculated under the current funding policy is a reasonable Actuarially Determined Employer Contribution (ADEC) and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

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.

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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

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

Sheryl Christensen

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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 24 years; and
(3) The unfunded liability will begin 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, 2024. 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.

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 24 years (normal cost, expenses, and a payment to amortize the unfunded liability).

The required contribution rate decreased, from 24.50% of payroll as of July 1, 2023 to 23.52% of payroll as of July 1, 2024, primarily due to the increase in plan assets as a result of the state aid received over the past year. The statutory contribution rate, before reflecting one-time state aid payments, decreased from 25.71% of payroll as of July 1, 2023 to 25.19% of payroll as of July 1, 2024. The 2024 Omnibus Bill, which reduced member contributions from 7.75% to 7.50%, is part of the reason for this decrease.

The contribution sufficiency (prior to reflecting state aid) increased from 1.21% of payroll as of July 1, 2023 to 1.67% of payroll as of July 1, 2024. In addition, the plan received 5.15% of pay in state aid in October 2023 and 0.48% of pay in state aid in October 2024. On a market value of assets basis, statutory contributions are sufficient by 2.89% of payroll (2.41% without the one-time direct state aid) of payroll as of July 1, 2024.

The contribution sufficiency referenced above is based on a current snapshot of statutory contributions as of July 1, 2024. Additional contribution increases are effective July 1, 2025 and July 1, 2026, ultimately increasing the statutory contribution rate (and the contribution sufficiency) an additional 2.25% of pay.

Assets and Liabilities

On an actuarial value of assets basis, the funding ratio increased, from 65.25% at July 1, 2023 to 67.24% at July 1, 2024, primarily due to the state aid received in October 2023. The Actuarial Accrued Liability increased approximately 0.4% more than expected, from $1,891.6 million to $1,933.1 million, due to demographic experience described later in this section.

On a market value of assets basis, the funding ratio increased from 64.32% at July 1, 2023 to 69.06% at July 1, 2024.

Summary of Valuation Results

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, 2024, the actuarial value of assets is 97.37% of market value.

The following table shows the July 1, 2024 valuation results, on both a market value and smoothed actuarial value basis:

Results as of July 1, 2024		
	Market Value of Assets	**Actuarial Value of Assets**
Actuarial Accrued Liability	$1,933.1 million	$1,933.1 million
Value of Assets	$1,335.0 million	$1,299.9 million
Unfunded Actuarial Accrued Liability	$ 598.1 million	$ 633.2 million
Funded Ratio	69.06%	67.24%
Statutory Contribution Rate	25.67% of pay	25.67% of pay
Required Contribution Rate	22.78% of pay	23.52% of pay
Sufficiency (with one-time direct state aid)	2.89% of pay	2.15% of pay
Sufficiency (without one-time direct state aid)	2.41% of pay	1.67% of pay

Changes Reflected in the Valuation

Assumption and Method Changes

There were no changes in actuarial assumptions or methods since the prior valuation.

Plan Provision Changes

The following plan changes are recognized in this valuation:

- Member contributions decreased from 7.75% of pay to 7.50% of pay effective July 1, 2024, and from 9.00% of pay to 8.75% of pay effective July 1, 2025. Effective July 1, 2026, the member contribution rate returns to 9.00% of pay.
- 2024 legislation provides for a one-time state aid contribution in the amount of $1,530,000 paid in October 2024.
- Annual supplemental contributions of $14,827,000 will continue until the earlier of the Plan achieving 100% funded ratio for three consecutive years, or June 30, 2048. This contribution was previously due to expire upon attainment of fully funded status on an actuarial value of assets basis for one year (or July 1, 2048, if earlier).

Summary of Valuation Results

Participants

Active membership increased 0.2% during fiscal year 2024, from 3,360 to 3,366 (figures exclude members on leave of absence). When members on leave of absence are included, active membership increased 0.5%, from 3,456 to 3,472. Total participants receiving benefits under the Fund, including disabled retirees, beneficiaries, and alternate payees, increased 1.6% during fiscal year 2024 from 4,310 to 4,378. Total annuity expenditures for these benefits increased from $122.3 million to $126.2 million during fiscal year 2024, or 3.2%, which includes a one-time non-compounding cost-of-living-adjustment payable in March 2024, estimated at approximately $2.8 million.

Covered payroll increased 7.7%, during fiscal year 2024, from $297 million to $320 million. Projected payroll for fiscal year 2025 is $323 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.

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 loss of $0.2 million.

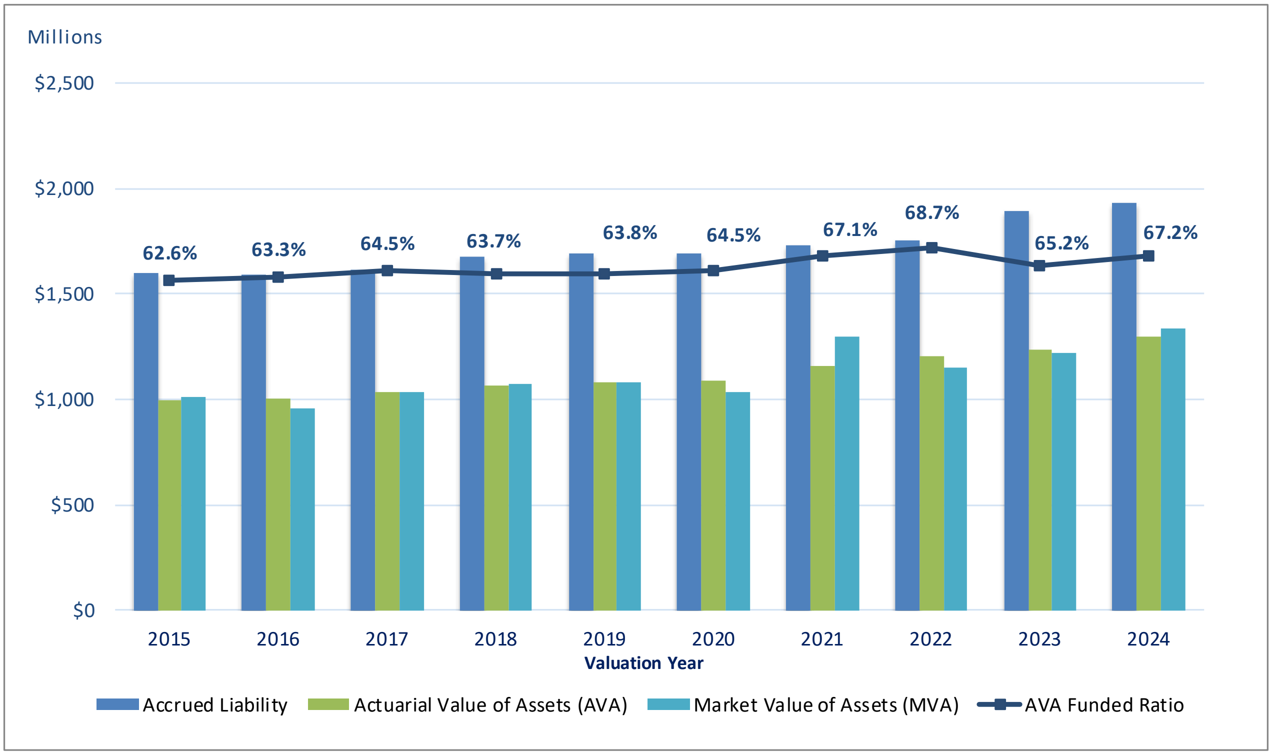
The Fund had an experience gain due to investments. The investment return on a market value of assets basis was 12.04% (net of fees) for the year ended June 30, 2024, more than the 7.00% assumption. However, only 20% of this asset gain was recognized in the actuarial value of assets. Investment gains and losses from previous years were also recognized this year. The net result is a gain of $8.5 million on the actuarial value of assets. The investment return on an actuarial value of assets basis was 7.70% for the year ended June 30, 2024.

The actuarial accrued liability increased more than expected. Salaries increased more than expected for continuing actives, resulting in an actuarial loss of $2.4 million. Other demographic experience produced an additional loss of $6.3 million, which includes an actuarial gain of $6.7 million due to more terminations than expected, and an actuarial loss of $5.2 million due to retirement experience.

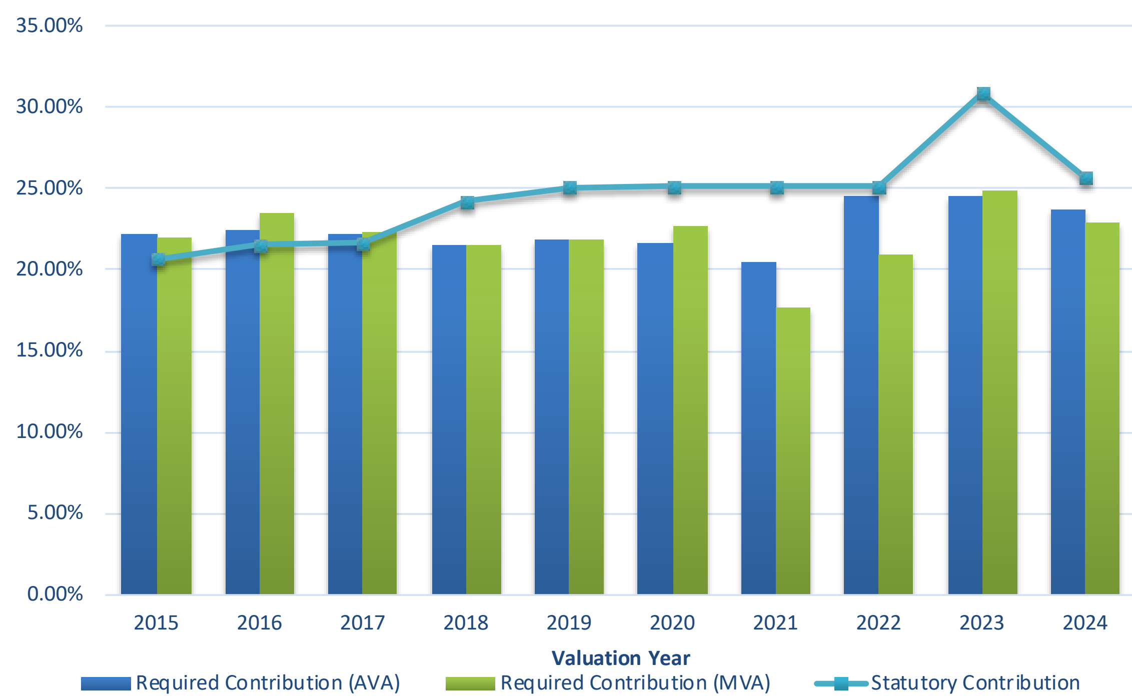
The changes in unfunded actuarial accrued liabilities are shown in Table 10 in Section 3.

Summary of Valuation Results

Funded Ratio History



Contribution Rate History (% of pay)



Note: 2023 and 2024 statutory contributions include one time state aid of 5.15% and 0.48% of pay, respectively; statutory contributions without one-time state aid are 25.71% and 25.19% of pay, respectively.

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	9.97%	12.31%	8.29%
Amortization of Unfunded Accrued Liability, % of Pay	13.28%	16.69%	9.95%
Expenses (% of Pay)	0.27%	0.27%	0.27%
Total Required Contribution, % of Pay	23.52%	29.27%	18.51%
Contribution Sufficiency/(Deficiency)*, % of	2.15%	-3.60%	7.16%
Accrued Liability Funding Ratio (AVA basis)	67.2%	59.8%	75.0%
Actuarial Accrued Liability (in millions)	$1,933.1	$2,175.5	$1,732.7
Unfunded Accrued Liability (in millions)	$ 633.2	$ 875.6	$ 432.8

** Includes one-time state aid.*

Summary of Valuation Results

(Dollars in Thousands)

	July 1, 2023 Valuation		July 1, 2024 Valuation	
A. CONTRIBUTIONS % OF PAYROLL (Table 11)				
1. Statutory Contributions - Chapter 354A	30.86%	**	25.67%	**
2. Required Contributions - Chapter 356	24.50%		23.52%	
3. Sufficiency / (Deficiency)	6.36%		2.15%	
B. FUNDING RATIOS				
1. Accrued Liability Funding Ratio				
a Current Assets (Table 1)	$ 1,234,225		$ 1,299,916	
b. Actuarial Accrued Liability (Table 9)	1,891,617		1,933,107	
c. Funding Ratio	65.25%		67.24%	
2. Projected Benefit Funding Ratio (Table 8)				
a. Current and Expected Future Assets	$ 2,259,768		$ 2,348,579	
b. Current and Expected Future Benefit Obligations	2,155,864		2,213,884	
c. Funding Ratio	104.82%		106.08%	
C. PLAN PARTICIPANTS				
1. Active Members				
a. Number (Table 3)	3,360		3,366	
b. Projected Annual Earnings*	$ 305,719		$ 323,288	
c. Average Annual Earnings (Projected dollars)*	$ 88,019		$ 92,434	
d. Average Age	45.1		45.3	
e. Average Service	13.2		13.2	
f. Members on Leave of Absence	96		106	
2. Others				
a. Service Retirements (Table 4)	3,905		3,956	
b. Disability Retirements (Table 5)	24		22	
c. Survivors (Table 6)	381		400	
d. Deferred Retirements (Table 7)	2,611		2,681	
e. Terminated Other Non-Vested (Table 7)	3,007		3,106	
f. Total - Others	9,928		10,165	
3. Grand Total (1.a + 1.f + 2.f)	13,384		13,637	

* *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 as of July 1, 2023 and 25.19% as of July 1, 2024).*

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.

	2023	2024
Ratio of market value of assets to total payroll	4.10	4.18
Ratio of actuarial accrued liability to total payroll	6.38	6.05
Ratio of actives to retirees and beneficiaries	0.8	0.8
Ratio of non-investment cash flow to market value of assets*	-3.9%	-2.2%

** 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.

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)
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%
2024	1,933,107	1,335,037	598,070	319,667	69.1%	1,186,511	61.4%	604.7%	417.6%

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
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%
2024	13.8%	57.6%	187.1%	(29,059)	(2.2%)	12.0%	8.1%

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 (LDROM) 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: $ 2,360,596,000

B. Discount rate used to calculate the LDROM: 5.35%
(Based on the FTSE Pension Liability Index as of the valuation date)

C. Other significant assumptions that differ from those used for the funding valuation: none

D. Actuarial cost method used to calculate the LDROM: 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 LDROM 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 LDROM) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.

Valuation Actuarial Accrued Liability	$	1,933,107,000
LDROM Actuarial Accrued Liability	$	2,360,596,000
Difference	$	(427,489,000)

SECTION 1

ASSET INFORMATION

Assets of the Plan

The market value of the plan assets increased from $1,216.8 million as of June 30, 2023 to $1,335.0 million as of June 30, 2024. The expected return on assets using the valuation investment return rate assumption of 7.0 percent was $84.2 million. The actual return on assets was approximately $147.3 million. Twenty percent of the asset return above the expected $84.2 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 gain of $8.5 million on the actuarial value of assets as shown in Table 10.

The 2022 asset loss as well as the 2024, 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, 2024, there are more unrecognized asset gains than losses, and the Actuarial Value of Assets (AVA) is lower than the Market Value of Assets (MVA) by $35.1 million, or 2.6%.

Table 1 shows the composition of assets as of June 30, 2024 and the development of the actuarial value of assets as of June 30, 2024. Table 2 details the development of asset values during fiscal year 2024.

Table 1
Accounting Balance Sheet
as of June 30, 2024
(Dollars in Thousands)

			Market Value
A.	ASSETS		
	1. Cash, Equivalents, Short-Term Securities		$ 13,085
	2. Investments		
	a. Fixed Income		281,608
	b. Equity		783,729
	c. Real Assets		78,351
	d. Alternative		166,356
	e. Cash and Cash Equivalents		19,310
	3. Other Assets		16,791
B.	TOTAL ASSETS		$ 1,359,230
C.	AMOUNTS CURRENTLY PAYABLE		$ 24,193
D.	ASSETS AVAILABLE FOR BENEFITS		
	1. Member Reserves		$ 264,303
	2. Employer Reserves		1,070,734
	3. Total Assets Available for Benefits		$ 1,335,037
E.	TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS		$ 1,359,230
F.	DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
	1. Market Value of Assets Available for Benefits (D.3)		$ 1,335,037
	2. Unrecognized Asset Returns (UAR)		
	a. June 30, 2024	$ 63,187	
	b. June 30, 2023	25,514	
	c. June 30, 2022	(191,444)	
	d. June 30, 2021	229,203	
	3. UAR Adjustment: .80 * 2(a) + .60 * 2(b) + .40 * 2(c) + .20 * 2(d)		35,121
	4. Actuarial Value of Assets: (F.1 - F.3)		$ 1,299,916

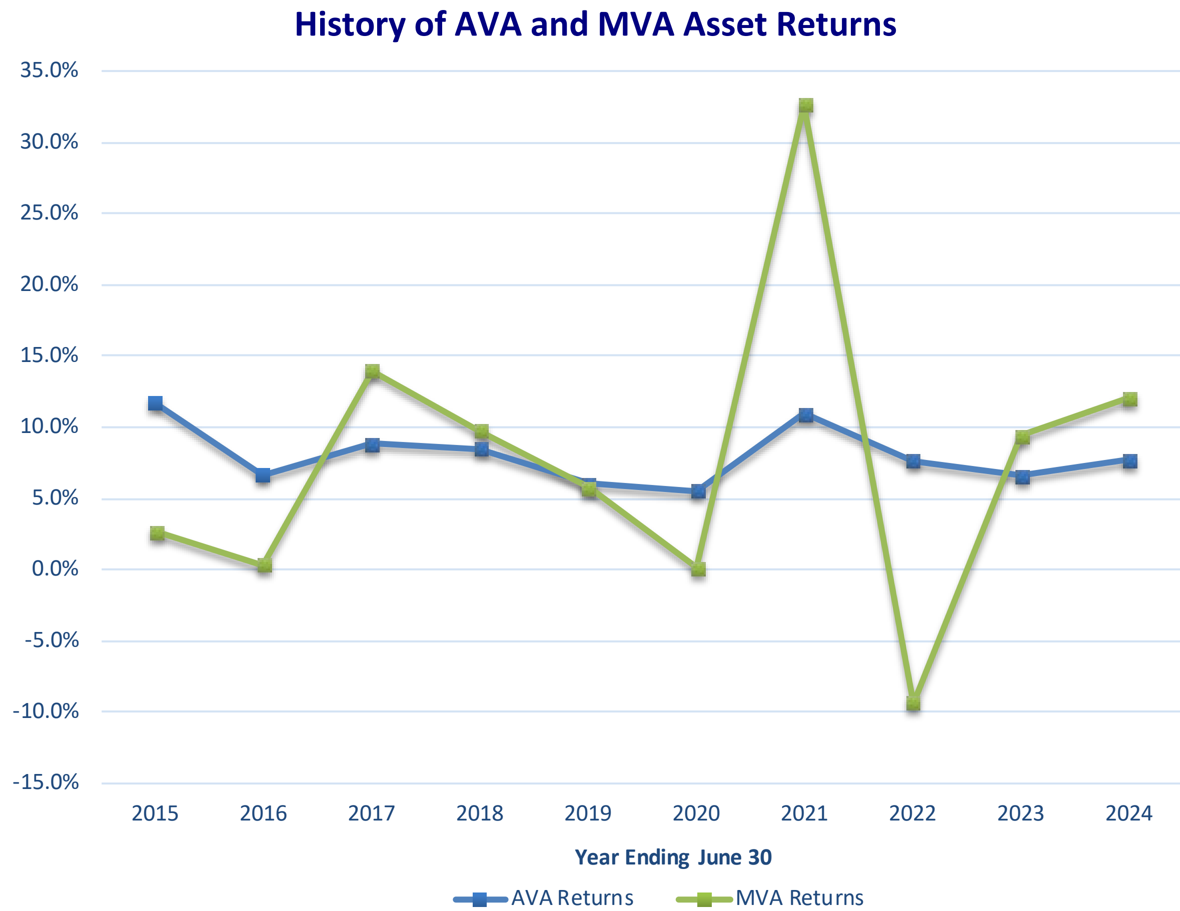
DERIVATION OF OTHER ASSETS *	Market Value
Accounts Receivable	
Employer Contribution	$ 437
Employee Contribution	236
Service Purchases Receivable	70
Pensions Receivable	74
State Contributions	838
Real Estate Income Receivable	185
Commission Recapture Receivable	1
Interest Receivable	54
Dividend Receivable	1,329
Misc. Receivable	0
Sale of Securities	13,567
Total Accounts Receivable	$16,791
Fixed Assets	0
Total Other Assets	$16,791

**Numbers may not add due to rounding.*

Table 2
Plan Assets
as of June 30, 2024
(Dollars in Thousands)

			Market Value
A.	ASSETS AVAILABLE AT BEGINNING OF PERIOD	$	1,216,753
B.	OPERATING REVENUES		
1.	Member Contributions	$	25,265
2.	Employer Contributions		41,954
3.	Supplemental Contributions		31,412
4.	Reemployed Annuitant Employer Contributions		426
5.	Investment Income		15,055
6.	Investment Expenses		(2,196)
7.	Net Realized Gain / (Loss)		91,085
8.	Other		0
9.	Net Change in Unrealized Gain / (Loss)		43,399
10.	Total Operating Revenue	$	246,400
C.	OPERATING EXPENSES		
1.	Service Retirements	$	112,603
2.	Disability Benefits		13,001
3.	Survivor Benefits		574
4.	Refunds		1,127
5.	Benefit Payment Adjustment		0
6.	Administrative Expenses		811
7.	Total Operating Expenses	$	128,116
D.	OTHER CHANGES IN RESERVES	$	0
E.	ASSETS AVAILABLE AT END OF PERIOD	$	1,335,037
F.	DETERMINATION OF CURRENT YEAR UNRECOGNIZED ASSET RETURN		
1.	Average Balance		
	(a) Assets available at BOY	$	1,216,753
	(b) Assets available at EOY		1,335,037
	(c) Average balance {[(a) + (b) - Net Investment Income] / 2}	$	1,202,224
	{Net investment income: B.5+B.6+B.7+B.9}		
2.	Expected Return: .070 * F.1		84,156
3.	Actual Return		147,343
4.	Current Year Gross Asset Gain/(Loss): F.3 - F.2	$	63,187

Historical 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%
2024	7.7%	12.0%

SECTION 2

TOTAL MEMBERSHIP DATA

Table 3
Active Members as of June 30, 2024*

Age	Years of Service <5	5-9	10-14	15-19	20-24	25-29	30-34	35+	ALL
< 25	27	0	0	0	0	0	0	0	27
25-29	210	26	0	0	0	0	0	0	236
30-34	201	150	21	0	0	0	0	0	372
35-39	150	144	149	19	0	0	0	0	462
40-44	136	103	156	118	31	0	0	0	544
45-49	99	72	72	96	152	32	0	0	523
50-54	61	48	54	63	128	181	21	0	556
55-59	35	28	35	34	79	139	89	6	445
60-64	21	15	23	21	38	57	39	17	231
65+	16	9	10	4	10	18	4	5	76
ALL	956	595	520	355	438	427	153	28	3,472

AVERAGE ANNUAL EARNINGS

Age	Years of Service <5	5-9	10-14	15-19	20-24	25-29	30-34	35+	ALL
< 25	50,932	0	0	0	0	0	0	0	50,932
25-29	60,260	66,630	0	0	0	0	0	0	60,961
30-34	66,123	78,063	93,210	0	0	0	0	0	72,467
35-39	74,634	82,358	91,918	98,599	0	0	0	0	83,601
40-44	81,145	89,392	95,395	101,407	99,794	0	0	0	92,251
45-49	78,880	88,345	94,063	96,561	103,254	104,676	0	0	94,181
50-54	77,286	88,654	95,330	92,324	103,000	105,172	105,877	0	97,801
55-59	61,226	89,031	91,856	93,051	100,657	103,963	108,250	121,262	98,380
60-64	57,983	92,094	89,013	87,630	97,036	104,686	101,407	106,576	94,839
65+	42,227	67,170	96,764	76,480	97,835	105,292	82,993	97,553	82,198
ALL	69,154	83,368	93,625	96,438	101,803	104,681	105,520	108,112	88,449

	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	66,111	49,604	48,685	34,236	44,590	44,699	16,145	3,027	307,095

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

Table 4
Service Retirements as of June 30, 2024

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	55	1	0	0	0	0	0	0	0	56
60-64	251	86	0	0	0	0	0	0	0	337
65-69	331	275	108	0	0	0	0	0	0	714
70-74	88	350	362	144	1	0	0	0	0	945
75-79	13	81	293	349	169	1	0	0	0	906
80-84	1	16	42	139	252	107	1	0	0	558
85-89	0	5	5	12	82	148	35	1	0	288
90+	0	0	1	3	6	57	51	31	3	152
ALL	739	814	811	647	510	313	87	32	3	3,956

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	23,652	11,093	0	0	0	0	0	0	0	23,428
60-64	33,412	23,108	0	0	0	0	0	0	0	30,783
65-69	22,282	23,249	21,937	0	0	0	0	0	0	22,602
70-74	17,187	19,538	26,029	29,797	65,785	0	0	0	0	23,418
75-79	10,698	17,324	25,005	35,186	37,546	21,159	0	0	0	30,370
80-84	444	26,639	17,845	27,743	33,628	32,650	30,423	0	0	30,521
85-89	0	6,968	4,410	31,269	36,372	42,741	38,143	71,427	0	38,704
90+	0	0	32,849	11,697	12,554	51,789	37,774	31,133	30,317	39,985
ALL	25,324	21,001	24,565	32,206	35,183	40,870	37,838	32,392	30,317	28,242

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	18,715	17,094	19,921	20,837	17,943	12,792	3,292	1,037	91	111,724

Table 5
Disability Retirements as of June 30, 2024*

Member Age	Years Disabled <5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
<45	0	0	0	0	0	0	0	0	0	0
45-49	1	0	1	0	0	0	0	0	0	2
50-54	3	1	1	0	0	0	0	0	0	5
55-59	1	1	1	0	0	0	0	0	0	3
60-64	3	2	4	2	0	0	0	0	0	11
65-69	1	0	0	0	0	0	0	0	0	1
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0
ALL	9	4	7	2	0	0	0	0	0	22

AVERAGE ANNUAL BENEFIT

Member Age	Years Disabled <5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
<45	0	0	0	0	0	0	0	0	0	0
45-49	20,724	0	3,668	0	0	0	0	0	0	12,196
50-54	11,078	7,796	35,751	0	0	0	0	0	0	15,356
55-59	32,973	6,032	16,381	0	0	0	0	0	0	18,462
60-64	25,340	36,847	21,836	13,818	0	0	0	0	0	24,063
65-69	21,820	0	0	0	0	0	0	0	0	21,820
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	20,530	21,881	20,449	13,818	0	0	0	0	0	20,140

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	88	143	28	0	0	0	0	0	443

** 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, 2024

Age	Years Since Member Death									
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
<45	15	1	1	0	0	0	0	0	0	17
45-49	3	1	2	0	0	0	0	0	0	6
50-54	3	2	1	0	0	0	0	0	0	6
55-59	6	3	1	1	0	0	0	0	0	11
60-64	3	3	2	0	0	0	0	0	0	8
65-69	8	8	2	1	1	0	0	0	0	20
70-74	18	6	6	1	2	0	0	0	1	34
75-79	26	13	9	7	3	2	1	0	4	65
80-84	33	13	13	9	6	2	2	1	3	82
85-89	27	21	11	11	3	3	2	0	5	83
90+	18	14	13	6	8	3	2	2	2	68
ALL	160	85	61	36	23	10	7	3	15	400

AVERAGE ANNUAL BENEFIT

Age	Years Since Member Death									
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
<45	11,224	5,352	8,919	0	0	0	0	0	0	10,743
45-49	16,058	527	8,397	0	0	0	0	0	0	10,916
50-54	34,598	1,563	7,875	0	0	0	0	0	0	19,133
55-59	7,749	7,883	2,039	570	0	0	0	0	0	6,614
60-64	7,775	4,811	24,747	0	0	0	0	0	0	10,906
65-69	25,173	33,391	13,647	7,929	736	0	0	0	0	25,223
70-74	28,812	15,479	26,316	14,873	10,115	0	0	0	1,097	23,694
75-79	32,544	27,462	51,096	14,193	31,146	42,754	23,107	0	27,600	31,920
80-84	37,684	37,888	29,852	37,890	53,968	27,840	20,895	16,401	35,639	36,705
85-89	38,342	36,704	37,275	39,192	39,806	35,184	50,885	0	21,888	37,149
90+	41,607	47,725	39,092	38,513	43,379	36,386	38,671	39,357	40,866	41,916
ALL	31,150	31,713	33,385	31,276	39,333	35,590	34,858	31,705	27,306	32,128

	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	4,984	2,696	2,036	1,126	905	356	244	95	410	12,851

Table 7
Reconciliation of Members
as of June 30, 2024

	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, 2023	3,360	96	2,611	3,007	3,858	23	371	58	13,384
B. Additions	251	72	203	234	144	3	49	3	959
C. Deletions									
1. Retirements	(66)	(2)	(75)	-	-	-	-	-	(143)
2. Disability	(1)	(2)	-	-	-	-	-	-	(3)
3. Died with Beneficiary	(2)	(1)	-	(3)	(48)	-	-	-	(54)
4. Died without Beneficiary	-	-	-	-	(52)	(1)	(27)	(3)	(83)
5. Terminated - Deferred	(164)	(33)	-	-	-	-	-	-	(197)
6. Terminated - Not Vested	(74)	(30)	-	-	-	-	-	-	(104)
7. Refunds	(5)	(1)	(53)	(63)	-	-	-	-	(122)
8. Rehired as Active	125	(51)	(39)	(35)	-	-	-	-	-
9. Leave of Absence	(58)	58	-	-	-	-	-	-	-
10. Repayment of Refund	-	-	-	-	-	-	-	-	-
11. Expired Benefits	-	-	-	-	-	-	-	-	-
12. Disability to Retirement	-	-	-	-	4	(4)	-	-	-
D. Data Adjustments[1]	-	-	34	(34)	-	-	-	-	-
E. Total on June 30, 2024	3,366	106	2,681	3,106	3,906	21	393	58	13,637

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

2 Includes alternate payees of retired participants (50), disabled participants (1), and survivors (7).

SECTION 3

FUNDING STATUS

Table 8
Actuarial Balance Sheet
as of July 1, 2024
(Dollars in Thousands)

A. CURRENT ASSETS (TABLE 1; Line F.4)	$	1,299,916
B. EXPECTED FUTURE ASSETS		
1. Present Value of Expected Future Statutory Supplemental Contributions*	$	767,886
2. Present Value of Future Normal Costs		280,777
3. Total Expected Future Assets	$	1,048,663
C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS	$	2,348,579
D. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS	$	2,213,884
E. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (D - C)	$	(134,695)

* *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, 2024
(Dollars in Thousands)

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
1. Active Members*			
a. Retirement Benefits	$ 825,963	$ 196,690	$ 629,273
b. Disability Benefits	$ 12,396	$ 4,344	$ 8,052
c. Surviving Spouse and Child Benefits	$ 6,362	$ 1,959	$ 4,403
d. Vested Withdrawals	$ 41,513	$ 55,603	$ (14,090)
e. Refund Liability Due to Death or Withdrawal	$ 2,500	$ 22,181	$ (19,681)
f. Total	$ 888,734	$ 280,777	$ 607,957
2. Deferred Retirements	$ 135,216	$ 0	$ 135,216
3. Former Members without Vested Rights	$ 3,423	$ 0	$ 3,423
4. Annuitants	$ 1,186,511	$ 0	$ 1,186,511
5. Total	$ 2,213,884	$ 280,777	$ 1,933,107
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. Actuarial Accrued Liability (A.5)			$ 1,933,107
2. Current Assets (Table 1; Line F.4)			$ 1,299,916
3. Unfunded Actuarial Accrued Liability (B.1 - B.2)			$ 633,191
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE**			
1. Present Value of Future Payrolls Through the Amortization Date of June 30, 2048***			$ 4,767,928
2. Supplemental Contribution Rate (B.3 / C.1)			13.28%

* *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, 2024
(Dollars in Thousands)

		Year Ending June 30, 2024		
		Actuarial Accrued Liability	Current Assets	Unfunded Actuarial Accrued Liability
A.	UAAL AT BEGINNING OF YEAR	$ 1,891,617	$ 1,234,225	$ 657,392
B.	CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING			
	1. Normal Cost and Expenses	30,985	-	30,985
	2. Benefit Payments	(127,305)	(127,305)	-
	3. Contributions	-	99,057	(99,057)
	4. Interest on A., B.1., B.2. and B.3.	129,042	85,407	43,635
	5. Total *(B.1. + B.2. + B.3. + B.4.)*	$ 32,722	$ 57,159	$ (24,437)
C.	EXPECTED VALUES AT END OF YEAR *(A + B.5)*	$ 1,924,339	$ 1,291,384	$ 632,955
D.	INCREASE / (DECREASE) DUE TO ACTUARIAL LOSSES / (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED			
	1. Age and Service Retirements			$ 5,191
	2. Disability Retirements			57
	3. Death-in-Service Benefits			(359)
	4. Withdrawals			(6,686)
	5. Salary Increases			2,425
	6. Investment Income			(8,532)
	7. Mortality of Annuitants			(557)
	8. Other Items			8,697
	9. Total			$ 236
E.	UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTIONS *(C + D.9)*			$ 633,191
F.	CHANGE IN UAAL DUE TO PLAN AMENDMENTS			-
G.	CHANGE IN UAAL DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS			-
H.	UAAL AT END OF YEAR *(E + F + G)*			$ 633,191

Table 11
Determination of Contribution Sufficiency
as of July 1, 2024
(Dollars in Thousands)

	Percent-of-Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	7.50%	$ 24,247
2. Employer Contributions		
a. Regular	9.00%	29,096
b. Additional	3.84%	12,414
3. Supplemental Contribution		
a. 1996 Legislation	0.26%	838
b. 1997 Legislation	0.87%	2,827
c. 2014 Legislation	2.17%	7,000
d. 2018 Legislation	1.55%	5,000
4. One-Time, Direct State Aid	0.48%	1,538
5. Total	25.67%	$ 82,960
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	7.12%	$ 23,018
b. Disability Benefits	0.15%	485
c. Surviving Spouse and Child Benefits	0.07%	226
d. Vested Withdrawals	1.87%	6,045
e. Refund Liability Due to Death or Withdrawal	0.76%	2,457
f. Total	9.97%	$ 32,231
2. Supplemental Contribution Amortization	13.28%	42,933
3. Allowance for Administrative Expenses	0.27%	873
4. Total	23.52%	$ 76,037
C. CONTRIBUTION SUFFICIENCY / (DEFICIENCY) (A.4 - B.4)*	2.15%	6,923
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)		$ 323,288

** Contribution sufficiency without one-time direct State aid is 1.67%.*

SECTION 4

ACTUARIAL METHODS AND ASSUMPTIONS

Table 12
Actuarial Methods and Assumptions
as of July 1, 2024

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, 2024

Age in 2024	Post-Retirement Mortality Male	Post-Retirement Mortality Female
55	22	19
56	24	21
57	27	23
58	30	26
59	34	28
60	37	30
61	41	33
62	46	35
63	50	38
64	55	40
65	61	43
66	67	47
67	74	51
68	82	56
69	91	62
70	101	69
71	113	77
72	127	87
73	143	99
74	162	113
75	184	130
76	209	149
77	237	172
78	270	198
79	307	227
80	349	261
81	398	300
82	455	344
83	519	394
84	592	452
85	676	517
86	770	590
87	875	672
88	993	765
89	1,124	869
90	1,268	985
91	1,425	1,115
92	1,593	1,259
93	1,770	1,415
94	1,955	1,582

Table 12
Actuarial Methods and Assumptions
as of July 1, 2024

Age in 2024	Pre-Retirement Mortality Male	Pre-Retirement Mortality Female
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	9
55	16	10
56	18	11
57	20	12
58	22	14
59	24	15
60	27	16
61	30	18
62	33	20
63	36	21
64	40	23

Table 12
Actuarial Methods and Assumptions
as of July 1, 2024

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, 2024

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, 2024

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, 2024

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, 2024

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 for three consecutive years or until June 30, 2048, whichever occurs earlier.
Projected Annual Payroll Calculation:	The census data as of July 1, 2024 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 $54,788; the Projected Annual Payroll for the fiscal year ending June 30, 2025 includes this replacement salary amount.
Changes in Actuarial Methods and Assumptions Since the Prior Valuation:	There were no changes since the prior valuation.

SECTION 5

BASIC PLAN

Table 3A
Basic Active Members as of June 30, 2024

There are no remaining Basic Active Members.

Table 4A
Basic Service Retirements as of June 30, 2024

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	2	12	0	0	0	0	0	0	16
70-74	0	9	64	71	1	0	0	0	0	145
75-79	0	5	49	179	134	0	0	0	0	367
80-84	0	4	5	41	171	83	1	0	0	305
85-89	0	0	1	4	43	119	29	1	0	197
90+	0	0	0	0	0	47	41	30	3	121
ALL	2	20	131	295	349	249	71	31	3	1,151

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	20,512	3,249	49,494	0	0	0	0	0	0	40,091
70-74	0	30,673	46,709	43,483	65,785	0	0	0	0	44,266
75-79	0	37,542	48,330	50,613	42,543	0	0	0	0	47,184
80-84	0	88,425	24,530	50,840	41,937	38,526	30,423	0	0	42,492
85-89	0	0	5,753	55,738	53,616	50,164	43,942	71,427	0	49,997
90+	0	0	0	0	0	57,814	43,125	31,962	30,317	45,745
ALL	20,512	41,198	46,411	48,998	43,677	47,729	43,280	33,235	30,317	45,805

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	41	824	6,080	14,455	15,243	11,884	3,073	1,030	91	52,721

Table 5A
Basic Disability Retirements as of June 30, 2024

There are no remaining Basic Disability Retirees.

Table 6A
Basic Survivors as of June 30, 2024

	Years Since Member Death									
Age	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	ALL
<45	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0
50-54	1	0	0	0	0	0	0	0	0	1
55-59	0	1	0	0	0	0	0	0	0	1
60-64	0	3	1	0	0	0	0	0	0	4
65-69	3	3	1	0	0	0	0	0	0	7
70-74	9	1	3	1	1	0	0	0	1	16
75-79	17	5	7	5	2	2	1	0	3	42
80-84	28	11	8	6	6	2	2	1	3	67
85-89	25	19	11	9	3	3	2	0	5	77
90+	18	14	13	5	8	3	2	2	2	67
ALL	101	57	44	26	20	10	7	3	14	282

AVERAGE ANNUAL BENEFIT

	Years Since Member Death									
Age	<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	69,389	0	0	0	0	0	0	0	0	69,389
55-59	0	4,811	0	0	0	0	0	0	0	4,811
60-64	0	4,811	49,183	0	0	0	0	0	0	15,904
65-69	26,832	35,854	25,360	0	0	0	0	0	0	30,488
70-74	42,145	1,741	32,701	14,873	3,350	0	0	0	1,097	31,154
75-79	42,176	54,100	57,294	14,193	41,456	42,754	23,107	0	25,078	41,102
80-84	41,495	42,724	36,549	47,217	53,968	27,840	20,895	16,401	35,639	41,076
85-89	40,932	40,082	37,275	44,147	39,806	35,184	50,885	0	21,888	39,330
90+	41,607	47,725	39,092	43,108	43,379	36,386	38,671	39,357	40,866	42,310
ALL	41,389	40,328	40,553	37,770	43,826	35,590	34,858	31,705	26,744	39,685

	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	4,180	2,299	1,784	982	877	356	244	95	374	11,191

Table 11A
Basic Determination of Contribution Sufficiency
as of July 1, 2024
(Dollars in Thousands)

There are no remaining Basic Active Members.

Summary of Benefit Provisions for Basic Members as of July 1, 2024

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.

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, 2024

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.

Age at Retirement	Reduction Factor
55	0.4200
56	0.4600
57	0.5000
58	0.5400
59	0.5800
60	0.6500
61	0.7200
62	0.7900
63	0.8600
64	0.9300
65	1.0000

Summary of Benefit Provisions for Basic Members as of July 1, 2024

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, 2024

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.

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, 2024

CHANGES IN PLAN PROVISIONS

There were no changes in plan provisions since the prior valuation.

SECTION 6

COORDINATED PLAN

Table 3B
Coordinated Active Members as of June 30, 2024

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

Table 4B
Coordinated Service Retirements as of June 30, 2024

	Years Retired									
Age	**<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	55	1	0	0	0	0	0	0	0	56
60-64	251	86	0	0	0	0	0	0	0	337
65-69	329	273	96	0	0	0	0	0	0	698
70-74	88	341	298	73	0	0	0	0	0	800
75-79	13	76	244	170	35	1	0	0	0	539
80-84	1	12	37	98	81	24	0	0	0	253
85-89	0	5	4	8	39	29	6	0	0	91
90+	0	0	1	3	6	10	10	1	0	31
ALL	737	794	680	352	161	64	16	1	0	2,805

AVERAGE ANNUAL BENEFIT

	Years Retired									
Age	**<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	23,652	11,093	0	0	0	0	0	0	0	23,428
60-64	33,412	23,108	0	0	0	0	0	0	0	30,783
65-69	22,293	23,396	18,492	0	0	0	0	0	0	22,201
70-74	17,187	19,244	21,587	16,485	0	0	0	0	0	19,639
75-79	10,698	15,993	20,320	18,942	18,414	21,159	0	0	0	18,921
80-84	444	6,044	16,941	18,080	16,086	12,329	0	0	0	16,089
85-89	0	6,968	4,074	19,034	17,360	12,280	10,115	0	0	14,256
90+	0	0	32,849	11,697	12,554	23,468	15,837	6,256	0	17,502
ALL	25,337	20,492	20,357	18,133	16,769	14,185	13,691	6,256	0	21,035

	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	18,674	16,270	13,842	6,382	2,700	908	219	6	0	59,003

Table 5B
Coordinated Disability Retirements as of June 30, 2024

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

Table 6B
Coordinated Survivors as of June 30, 2024

	Years Since Member Death									
Age	**<5**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**ALL**
<45	15	1	1	0	0	0	0	0	0	17
45-49	3	1	2	0	0	0	0	0	0	6
50-54	2	2	1	0	0	0	0	0	0	5
55-59	6	2	1	1	0	0	0	0	0	10
60-64	3	0	1	0	0	0	0	0	0	4
65-69	5	5	1	1	1	0	0	0	0	13
70-74	9	5	3	0	1	0	0	0	0	18
75-79	9	8	2	2	1	0	0	0	1	23
80-84	5	2	5	3	0	0	0	0	0	15
85-89	2	2	0	2	0	0	0	0	0	6
90+	0	0	0	1	0	0	0	0	0	1
ALL	59	28	17	10	3	0	0	0	1	118

AVERAGE ANNUAL BENEFIT

	Years Since Member Death									
Age	**<5**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**ALL**
<45	11,224	5,352	8,919	0	0	0	0	0	0	10,743
45-49	16,058	527	8,397	0	0	0	0	0	0	10,916
50-54	17,203	1,563	7,875	0	0	0	0	0	0	9,081
55-59	7,749	9,419	2,039	570	0	0	0	0	0	6,794
60-64	7,775	0	311	0	0	0	0	0	0	5,909
65-69	24,177	31,913	1,934	7,929	736	0	0	0	0	22,388
70-74	15,480	18,227	19,931	0	16,879	0	0	0	0	17,063
75-79	14,351	10,813	29,403	14,193	10,525	0	0	0	35,163	15,154
80-84	16,342	11,290	19,137	19,236	0	0	0	0	0	17,179
85-89	5,965	4,614	0	16,894	0	0	0	0	0	9,158
90+	0	0	0	15,536	0	0	0	0	0	15,536
ALL	13,623	14,173	14,833	14,392	9,380	0	0	0	35,163	14,068

	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	804	397	251	144	28	0	0	0	35	1,660

Table 11B
Coordinated Determination of Contribution Sufficiency
as of July 1, 2024
(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, 2024

STATUTORY CONTRIBUTIONS

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

Contribution after June 30,	Member	Employer Regular	Employer Additional
2023	7.75%	9.00%	3.84%
2024	7.50%	9.00%	3.84%
2025	8.75%	9.75%	3.84%
2026	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 earlier of the Plan achieving 100% funded ratio for three consecutive years, or June 30, 2048.

2024 legislation provides for a one-time state aid contribution in the amount of $1,538,000, to be paid by October 1, 2024.

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, 2024

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, 2024

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.

	Reduction Factor Under Age 62 or Less than 30 Years of Service	
Normal Retirement Age:	**65**	**66**
Age at Retirement		
55	0.4200	0.3500
56	0.4600	0.3900
57	0.5000	0.4300
58	0.5400	0.4700
59	0.5800	0.5100
60	0.6500	0.5800
61	0.7200	0.6500
62	0.7900	0.7200
63	0.8600	0.7900
64	0.9300	0.8600
65	1.0000	0.9300
66		1.0000

Summary of Benefit Provisions for Coordinated Members as of July 1, 2024

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, 2024

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.

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 decrease from 7.75% of pay to 7.50% of pay effective July 1, 2024, and from 9.00% of pay to 8.75% of pay effective July 1, 2025. Effective July 1, 2026, the member contribution rate returns to 9.00% of pay.

An additional one-time direct state aid contribution of $1.5 million will be contributed to the Plan by October 1, 2024.

Annual supplemental contributions of $14,827,000 will continue until the earlier of the Plan achieving 100% funded ratio for three consecutive years, or June 30, 2048. This contribution was previously due to expire upon attainment of fully funded status on an actuarial value of assets basis for one year (or July 1, 2048, if earlier).

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%
07/01/24	1,299,916	1,933,107	633,191	67.24%	319,667	198.08%

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
2024	24.50%	319,667	25,265	53,053	73,792	139.09

[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
2024	41,954	25,265	31,838	94,750	811	127,305	1,299,916

** Includes employer contributions for re-employed annuitants.*

Table 17
Additional Disclosures – Supplementary Information

Valuation Date	July 1, 2024
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Pay, Closed, Assuming 2.50 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	3,472
Retirees and Beneficiaries	4,378
Terminated Vested Members	2,681
Other Non-Vested Terminated Members	3,106
Total	13,637