

Minnesota State Retirement System

State Patrol Retirement Fund

GASB Statement Nos. 67 and 68

Accounting and Financial Reporting for Pensions

June 30, 2025





November 24, 2025

Minnesota State Retirement System
State Patrol Retirement Fund
St. Paul, Minnesota

Dear Board of Directors:

This report provides accounting and financial reporting information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 for the State Patrol Retirement Fund, as amended by GASB Statement No. 82. These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

GASB Statement No. 67 is the accounting standard that applies to the financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust. GASB Statement No. 82 is an amendment to GASB Statements No. 67, No. 68, and No. 73, intended to improve consistency in the application of the accounting standards.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of providing financial reporting and disclosure information that satisfies the requirements of GASB Statements No. 67 and No. 68. The Net Pension Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net Pension Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. The calculation of the plan's liability for this report may not be applicable for purposes of funding the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statements No. 67 and No. 68 may produce significantly different results. The information in this report is calculated on a total plan basis. Minnesota State Retirement System (MSRS) is responsible for preparing the Schedule of Employer Allocations and the Schedule of Pension Amounts by Employer, as applicable. This report may be provided to parties other than the MSRS only in its entirety and only with the permission of MSRS. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by MSRS, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not audited.

This report complements the actuarial valuation report for funding purposes that was or will be provided to the System and should be considered in conjunction with that report. Please see the actuarial valuation report as of June 30, 2025 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, the information contained within this report is accurate and fairly represents the actuarial position of the State Patrol Retirement Fund as of the measurement date. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

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.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

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.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



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



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

BJW/SLC:dj



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SECTION A

EXECUTIVE SUMMARY

Executive Summary

as of June 30, 2025 (Dollars in Thousands)

	2025
Actuarial Valuation Date	June 30, 2025
Measurement Date of the Net Pension Liability	June 30, 2025

Membership

Number of	
- Service Retirements	945
- Survivors	156
- Disability Retirements	99
- Deferred Retirements	81
- Terminated Other Non-Vested	69
- Active Members	1,008
- Total	<u>2,358</u>
Covered-employee Payroll ⁽¹⁾	<u>\$ 127,240</u>

Net Pension Liability

Total Pension Liability	\$ 1,316,790
Plan Fiduciary Net Position	<u>1,155,556</u>
Net Pension Liability	<u>\$ 161,234</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	87.76%
Net Pension Liability as a Percentage of Covered-employee Payroll	126.72%

Development of the Single Discount Rate

Single Discount Rate	7.00%
Long-Term Expected Rate of Investment Return	7.00%
Long-Term Municipal Bond Rate ⁽²⁾	5.20%
Last year ending June 30 in the 2026 to 2125 projection period for which projected benefit payments are fully funded	2125

Total Pension Expense / (Income)	<u><u>\$ 42,344</u></u>
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Deferred Outflows and Deferred Inflows of Resources by Source Arising from Current and Prior Periods to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience in the measurement of Total Pension Liability	\$ 50,955	\$ 2,684
Changes in assumptions	15,024	36,955
Net difference between projected and actual earnings on pension plan investments	<u>24,228</u>	<u>69,614</u>
Totals	<u><u>\$ 90,207</u></u>	<u><u>\$ 109,253</u></u>

⁽¹⁾ Assumed equal to actual member contributions divided by employee contribution rate.

⁽²⁾ Based on the 20-Year Municipal GO Index of mixed maturity general obligation municipal bonds as of the weekly rate closest to but not later than the Measurement Date.

Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans*, establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements. GASB Statement No. 82, *Pension Issues*, is an amendment to GASB Statements No. 67, No. 68, and No. 73, intended to improve consistency in the application of the accounting standards.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state and local governmental employers to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Paragraph 57 of GASB Statement No. 68 states, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to the State Patrol Retirement Fund subsequent to the measurement date of June 30, 2025.

The pension expense or income recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the difference between expected and actual experience in the measurement of the total pension liability, assumption changes, and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position in accordance with GASB Statement No. 67. The *Statement of Fiduciary Net Position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *Statement of Changes in Fiduciary Net Position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans to include certain descriptive information about the pension plans through which the pension benefits are provided. The list of disclosure items should include:

- A description of benefits provided by the plan;
- The classes of employees and number of members covered by the pension plan;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The pension plan's investment policies;
- The pension plan's fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability;
- The net pension liability using a discount rate that is 1% higher and 1% lower than the current discount rate used to calculate the total pension liability and net pension liability for financial reporting purposes;
- Significant assumptions and methods used to calculate the total pension liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- The composition of the pension plan's Board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

MSRS' comprehensive annual financial report, which contains the basic financial statements and related note disclosures for the State Patrol Retirement Fund, can be found online at

<https://www.mnretire.gov/annual-reports-fy-2025> or obtained from MSRS at 60 Empire Drive, Suite 300, St. Paul, Minnesota, 55103 or requested via email at info@mnretire.gov or telephone at 1.800.657.5757.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- Sources of changes in the net pension liability;
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- A comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.



Measurement of the Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

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), then the following outcomes are expected:

1. The employer normal cost is expected to remain approximately level as a percentage of payroll;
2. The funded status of the plan is expected to gradually improve and is expected to be 100% funded within the next 23 years; and
3. The unfunded liability will grow initially as a dollar amount for two years (based on the current layered amortization schedule and if contributions are equal to the required amount) before beginning to decline.

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

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 market 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 actuarial value of assets were used instead of the market value of assets.

Limitation of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

Timing of the Valuation

GASB Statement Nos. 67 and 68 require that an actuarial valuation to determine the total pension liability is required to be performed at least every two years. For employer reporting, the net pension liability and pension expense should be measured as of a date (measurement date) no earlier than the end of the employer's prior fiscal year, consistently applied from period to period. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2025 and a measurement date of June 30, 2025.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 5.20%*; and the resulting single discount rate is 7.00%.

** Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in The Bond Buyer's Index's '20-Bond GO Index' as of June 30, 2025.*

SECTION B

FINANCIAL STATEMENTS

Statement of Pension Expense Under GASB Statement No. 68

Fiscal Year Ended June 30, 2025 (Dollars in Thousands)

A. Expense

1. Service Cost	\$ 31,757
2. Interest on the Total Pension Liability	83,191
3. Current-Period Benefit Changes	34,447
4. Employee Contributions	(19,595)
5. Projected Earnings on Plan Investments	(73,313)
6. Pension Plan Administrative Expense	250
7. Other Changes in Plan Fiduciary Net Position	-
8. Recognition of Outflow (Inflow) of Resources due to differences between expected and actual experience in the measurement of the Total Pension Liability	
<i>Arising from Current Reporting Period</i>	6,506
9. Recognition of Outflow (Inflow) of Resources due to assumption changes	
<i>Arising from Current Reporting Period</i>	(1,534)
10. Recognition of Outflow (Inflow) of Resources due to the difference between projected (7.00%) and actual earnings on Pension Plan Investments	
<i>Arising from Current Reporting Period</i>	(8,112)
11. Increases/(Decreases) from Experience in the Current Reporting Period	\$ 53,597
12. Recognition of Outflow (Inflow) of Resources due to differences between expected and actual experience in the measurement of the Total Pension Liability	
<i>Arising from Prior Reporting Periods</i>	\$ 8,509
13. Recognition of Outflow (Inflow) of Resources due to assumption changes	
<i>Arising from Prior Reporting Periods</i>	3,291
14. Recognition of Outflow (Inflow) of Resources due to the difference between projected and actual earnings on Pension Plan Investments	
<i>Arising from Prior Reporting Periods</i>	(23,053)
15. Total Pension Expense / (Income)	\$ 42,344

Differences between expected and actual experience and changes in assumptions are recognized in pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with pension through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 12,916 years. Additionally, the total plan membership (active employees and inactive employees) was 2,302. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 6.0000 years (rounded).

Additionally, differences between projected and actual earnings on plan investments should be recognized in pension expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.



Statement of Outflows and Inflows

Arising from Current Reporting Period

Fiscal Year Ended June 30, 2025 (Dollars in Thousands)

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 39,037
2. Assumption Changes (gains) or losses	(9,206)
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years, rounded to the nearest whole number}	6
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	6,506
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	(1,534)
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	<u>\$ 4,972</u>
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	\$ 32,531
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	(7,672)
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	<u>\$ 24,859</u>

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (40,562)
2. Recognition period for Assets {in years}	5
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	<u>(8,112)</u>
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	<u>\$ (32,450)</u>

Statement of Outflows and Inflows

Arising from Current and Prior Reporting Periods

Fiscal Year Ended June 30, 2025 (Dollars in Thousands)

A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows/(Inflows) of Resources
1. Due to Liabilities	\$ 30,875	\$ 14,103	\$ 16,772
2. Due to Assets	24,227	55,392	(31,165)
3. Total	<u>\$ 55,102</u>	<u>\$ 69,495</u>	<u>\$ (14,393)</u>

B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows/(Inflows) of Resources
1. Differences between expected and actual experience	\$ 15,851	\$ 836	\$ 15,015
2. Assumption Changes	15,024	13,267	1,757
3. Net Difference between projected and actual earnings on pension plan investments	24,227	55,392	(31,165)
4. Total	<u>\$ 55,102</u>	<u>\$ 69,495</u>	<u>\$ (14,393)</u>

C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows/ (Inflows) of Resources
1. Differences between expected and actual experience	\$ 50,955	\$ 2,684	\$ 48,271
2. Assumption Changes	15,024	36,955	(21,931)
3. Net Difference between projected and actual earnings on pension plan investments*	24,228	69,614	(45,386)
4. Total	<u>\$ 90,207</u>	<u>\$ 109,253</u>	<u>\$ (19,046)</u>

D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending June 30	Net Deferred Outflows/ (Inflows) of Resources
2026	\$ 19,368
2027	(20,149)
2028	(19,648)
2029	(3,589)
2030	4,972
Thereafter	-
Total	<u>\$ (19,046)</u>

* Paragraph 71(b) of GASB Statement No. 68 requires deferred outflows and inflows arising from differences between projected and actual earnings on pension plan investments to be aggregated and shown as a net amount. For purposes of this valuation, amounts are shown separately for calculation purposes.

Recognition of Deferred Outflows and Inflows of Resources

Fiscal Year Ended June 30, 2025 (Dollars in Thousands)

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) Due to Differences Between Expected and Actual Experience on Liabilities					
2020	\$ (535)	6.0000	\$ (90)	\$ 0	0.0000
2021	1,596	6.0000	266	266	1.0000
2022	54,474	6.0000	9,079	18,158	2.0000
2023	(1,787)	6.0000	(298)	(893)	3.0000
2024	(2,687)	6.0000	(448)	(1,791)	4.0000
2025	39,037	6.0000	6,506	32,531	5.0000
Total			\$ 15,015	\$ 48,271	
Deferred Outflow (Inflow) Due to Assumption Changes					
2021	\$ 90,144	6.0000	\$ 15,024	\$ 15,024	1.0000
2022	(35,484)	6.0000	(5,914)	(11,828)	2.0000
2023	(34,912)	6.0000	(5,819)	(17,455)	3.0000
2025	(9,206)	6.0000	(1,534)	(7,672)	5.0000
Total			\$ 1,757	\$ (21,931)	
Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments					
2021	\$ (168,354)	5.0000	\$ (33,670)	\$ 0	0.0000
2022	121,136	5.0000	24,227	24,228	1.0000
2023	(18,325)	5.0000	(3,665)	(7,330)	2.0000
2024	(49,724)	5.0000	(9,945)	(29,834)	3.0000
2025	(40,562)	5.0000	(8,112)	(32,450)	4.0000
Total			\$ (31,165)	\$ (45,386)	
Deferred Outflow (Inflow) Due to All Sources					
Total			\$ (14,393)	\$ (19,046)	

Statement of Fiduciary Net Position as of June 30, 2025 (Dollars in Thousands)

Assets	<u>June 30, 2025</u>
Cash & Short-term Investments	\$ 34,769
Receivables	2,218
Investment Pools (at fair value)	1,119,795
Securities Lending Collateral	42,609
Capital Assets	<u>-</u>
Total Assets	\$ 1,199,391
 Total Deferred Outflows of Resources	 \$ -
Total Liabilities	\$ (43,835)
Total Deferred Inflows of Resources	\$ <u>-</u>
 Net Position Restricted for Pensions	 \$ <u><u>1,155,556</u></u>

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2025 (Dollars in Thousands)

1. Net Position at market value at beginning of year	\$ 1,052,966
Additions	
2. Contributions	
a. Employee	\$ 19,595
b. Employer	38,365
c. Other sources - Supplemental State Aid	1,000
d. Total contributions	<u>\$ 58,960</u>
3. Investment income	
a. Investment income/(loss)	\$ 118,056
b. Investment expenses	(4,181)
c. Net investment income/(loss)	<u>\$ 113,875</u>
4. Other Additions	<u>\$ -</u>
5. Total Additions (2.d.) + (3.c.) + (4.)	<u>\$ 172,835</u>
Deductions	
6. Benefits Paid	
a. Annuity benefits	\$ (69,687)
b. Refunds	(308)
c. Total benefits paid	<u>\$ (69,995)</u>
7. Expenses	
a. Other deductions	\$ -
b. Administrative	(250)
c. Total expenses	<u>\$ (250)</u>
8. Total Deductions (6.c.) + (7.c.)	<u>\$ (70,245)</u>
9. Net increase/(decrease) in fiduciary net position (5.) + (8.)	<u>\$ 102,590</u>
10. Net position at market value at end of year (1.) + (9.)	<u><u>\$ 1,155,556</u></u>
11. State Board of Investment calculated annual investment return for the State Patrol Retirement Fund*	10.9%

* The fiscal year 2025 investment return for the Combined Funds is 10.9%.

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability and Related Ratios

Current Period

Fiscal Year Ended June 30, 2025 (Dollars in Thousands)

A. Total pension liability

1. Service cost	\$ 31,757
2. Interest on the total pension liability	83,191
3. Changes of benefit terms	34,447
4. Difference between expected and actual experience of the total pension liability	39,037
5. Changes of assumptions	(9,206)
6. Benefit payments, including refunds of employee contributions	(69,995)
7. Net change in total pension liability	\$ 109,231
8. Total pension liability – beginning	1,207,559
9. Total pension liability – ending	<u><u>\$ 1,316,790</u></u>

B. Plan fiduciary net position

1. Contributions – employer ⁽¹⁾	\$ 39,365
2. Contributions – employee	19,595
3. Net investment income	113,875
4. Benefit payments, including refunds of employee contributions	(69,995)
5. Pension plan administrative expense	(250)
6. Other changes	-
7. Net change in plan fiduciary net position	\$ 102,590
8. Plan fiduciary net position – beginning	1,052,966
9. Plan fiduciary net position – ending	<u><u>\$ 1,155,556</u></u>

C. Net pension liability, A.9. - B.9.

\$ 161,234

D. Plan fiduciary net position as a percentage of the total pension liability, B.9. / A.9.

87.76%

E. Covered-employee payroll ⁽²⁾

\$ 127,240

F. Net pension liability as a percentage of covered-employee payroll, C. / E.

126.72%

⁽¹⁾ Includes \$1 million supplemental State aid.

⁽²⁾ Assumed equal to actual member contributions divided by employee contribution rate.

Schedule of Changes in Net Pension Liability and Related Ratios Multiyear (Dollars in Thousands)

Last 10 Fiscal Years

Fiscal year ending June 30,	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Total Pension Liability										
Service Cost	\$ 31,757	\$ 29,442	\$ 29,951	\$ 26,648	\$ 21,795	\$ 21,122	\$ 19,375	\$ 24,935	\$ 29,758	\$ 16,555
Interest on the Total Pension Liability	83,191	80,498	77,346	71,049	72,625	70,465	68,227	65,110	58,865	64,592
Benefit Changes	34,447	0	2,002	0	0	0	0	(2,604)	0	0
Difference between Expected and Actual Experience	39,037	(2,687)	(1,787)	54,474	1,596	(535)	2,757	(8,369)	(2,418)	(22,222)
Assumption Changes	(9,206)	0	(34,912)	(35,484)	90,144	0	0	(126,888)	(112,694)	283,584
Benefit Payments	(69,687)	(69,703)	(66,343)	(64,332)	(63,094)	(61,859)	(60,375)	(59,653)	(58,560)	(57,695)
Refunds	(308)	(187)	(237)	(174)	(116)	(112)	(428)	(39)	(5)	(79)
Net Change in Total Pension Liability	\$ 109,231	\$ 37,363	\$ 6,020	\$ 52,181	\$ 122,950	\$ 29,081	\$ 29,556	\$ (107,508)	\$ (85,054)	\$ 284,735
Total Pension Liability - Beginning	1,207,559	1,170,196	1,164,176	1,111,995	989,045	959,964	930,408	1,037,916	1,122,970	838,235
Total Pension Liability - Ending (a)	\$ 1,316,790	\$ 1,207,559	\$ 1,170,196	\$ 1,164,176	\$ 1,111,995	\$ 989,045	\$ 959,964	\$ 930,408	\$ 1,037,916	\$ 1,122,970
Plan Fiduciary Net Position										
Employer Contributions ⁽¹⁾	\$ 39,365	\$ 47,035	\$ 32,537	\$ 33,258	\$ 25,809	\$ 22,975	\$ 20,479	\$ 16,952	\$ 16,783	\$ 14,938
Employee Contributions	19,595	17,453	16,434	16,515	13,606	12,595	12,038	10,657	10,520	9,292
Pension Plan Net Investment Income	113,875	115,542	77,364	(59,360)	224,273	31,073	51,823	70,474	93,077	(774)
Benefit Payments	(69,687)	(69,703)	(66,343)	(64,332)	(63,094)	(61,859)	(60,375)	(59,653)	(58,560)	(57,695)
Refunds	(308)	(187)	(237)	(174)	(116)	(112)	(428)	(39)	(5)	(79)
Pension Plan Administrative Expense	(250)	(272)	(235)	(190)	(204)	(224)	(191)	(184)	(208)	(220)
Other	0	(1)	(2)	0	0	(2)	(1)	(7)	0	0
Net Change in Plan Fiduciary Net Position	\$ 102,590	\$ 109,867	\$ 59,518	\$ (74,283)	\$ 200,274	\$ 4,446	\$ 23,345	\$ 38,200	\$ 61,607	\$ (34,538)
Plan Fiduciary Net Position - Beginning	1,052,966	943,099	883,581	957,864	757,590	753,144	729,799	691,599	629,992	664,530
Plan Fiduciary Net Position - Ending (b)	\$ 1,155,556	\$ 1,052,966	\$ 943,099	\$ 883,581	\$ 957,864	\$ 757,590	\$ 753,144	\$ 729,799	\$ 691,599	\$ 629,992
Net Pension Liability - Ending (a) - (b)	\$ 161,234	\$ 154,593	\$ 227,097	\$ 280,595	\$ 154,131	\$ 231,455	\$ 206,820	\$ 200,609	\$ 346,317	\$ 492,978
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	87.76 %	87.20 %	80.59 %	75.90 %	86.14 %	76.60 %	78.46 %	78.44 %	66.63 %	56.10 %
Covered-Employee Payroll ⁽²⁾	\$ 127,240	\$ 113,331	\$ 106,714	\$ 107,240	\$ 88,351	\$ 84,530	\$ 80,792	\$ 74,007	\$ 73,056	\$ 69,343
Net Pension Liability as a Percentage										
of Covered-Employee Payroll	126.72 %	136.41 %	212.81 %	261.65 %	174.45 %	273.81 %	255.99 %	271.07 %	474.04 %	710.93 %

Notes to Schedule:

⁽¹⁾ Includes \$1 million supplemental State aid and, in fiscal year 2024, also includes \$12 million in one-time State aid.

⁽²⁾ Assumed equal to actual member contributions divided by employee contribution rate.



Schedule of Net Pension Liability Multiyear (Dollars in Thousands)

Last 10 Fiscal Years

Fiscal Year Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered- Employee Payroll	Net Pension Liability as a % of Covered- Employee Payroll
	(a)	(b)	(a) - (b) = (c)	(b) / (c)	(d)	(c) / (d)
2016	\$ 1,122,970	\$ 629,992	\$ 492,978	56.10%	\$ 69,343	710.93%
2017	1,037,916	691,599	346,317	66.63	73,056	474.04
2018	930,408	729,799	200,609	78.44	74,007	271.07
2019	959,964	753,144	206,820	78.46	80,792	255.99
2020	989,045	757,590	231,455	76.60	84,530	273.81
2021	1,111,995	957,864	154,131	86.14	88,351	174.45
2022	1,164,176	883,581	280,595	75.90	107,240	261.65
2023	1,170,196	943,099	227,097	80.59	106,714	212.81
2024	1,207,559	1,052,966	154,593	87.20	113,331	136.41
2025	1,316,790	1,155,556	161,234	87.76	127,240	126.72

Schedule of Contributions Multiyear (Dollars in Thousands)

Last 10 Fiscal Years

Fiscal Year Ending June 30,	Actuarially Determined Contribution ⁽¹⁾	Actual Contributions ⁽²⁾	Contribution Deficiency (Excess)	Covered- Employee Payroll ⁽³⁾	Actual Contribution as a % of Covered- Employee Payroll
	(a)	(b)	(a) - (b) = (c)	(d)	(b) / (d)
2016	\$ 20,463	\$ 14,938	\$ 5,525	\$ 69,343	21.54%
2017	19,031	16,783	2,248	73,056	22.97
2018	20,900	16,952	3,948	74,007	22.91
2019	21,281	20,479	802	80,792	25.35
2020	21,580	22,975	(1,395)	84,530	27.18
2021	22,203	25,809	(3,606)	88,351	29.21
2022	20,611	33,258	(12,647)	107,240	31.01
2023	19,902	32,537	(12,635)	106,714	30.49
2024	27,007	47,035	(20,028)	113,331	41.50
2025	27,267	39,365	(12,098)	127,240	30.94

Notes to Schedule of Contributions

Methods and Assumptions Used to Determine Fiscal Year Ending June 30, 2025 Contribution Rates Reported in this Schedule:

Notes	<p>(1) Actuarially determined contribution rates are calculated as of each June 30 and apply to the fiscal year beginning on the day after the measurement date.</p> <p>(2) Includes supplemental State aid of \$1 million.</p> <p>(3) Assumed equal to actual member contributions divided by employee contribution rate.</p>
Valuation Date	June 30, 2024
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	24 years
Asset Valuation Method	5-Year smoothed market; no corridor
Inflation	2.25%
Payroll Growth	3.00%
Salary Increases	Service-based tables ranging from 12.50% with one year of service to 3.00% with 25 or more years of service, including inflation.
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2021 valuation pursuant to an experience study of the period 2015-2019.
Healthy Post-retirement Mortality	Pub-2010 General Retired Mortality Table adjusted for mortality improvements using mortality improvement scale MP-2019.

Other Information:

Benefit Increases After Retirement	1.00% per annum
See separate funding actuarial valuation report as of July 1, 2024 for additional detail. To obtain this report, contact MSRS as noted on page 3. The report is also available online at https://www.mnretire.gov/annual-reports-fy-2024	



Schedule of Investment Returns Multiyear

Last 10 Fiscal Years

Fiscal Year Ending June 30,	Annual Return⁽¹⁾
2016	(0.1)%
2017	15.2
2018	10.5
2019	7.3
2020	4.2
2021	30.3
2022	(6.3)
2023	8.9
2024	12.4
2025	10.9

⁽¹⁾ Annual money-weighted rate of return, net of investment expenses.

The Minnesota State Board of Investment (SBI) compiled this data and the related investment notes and provided it to MSRS for GASB compliance purposes. MSRS furnished this information to us for inclusion within this report. We did not audit this information. We are not responsible for its accuracy or completeness.

Rate of Return

For the fiscal year ended June 30, 2025, the annual money-weighted rate of return for the State Patrol Retirement Fund was 10.9%. The money-weighted rate of return is a method of calculating period-by-period returns on pension plan investments that adjusts for the changing amounts actually invested. For purposes of this schedule, the money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.

To request additional information about the computation of the annual money-weighted rate of return and the investments for the Minnesota Retirement Systems (including the investments for MSRS' defined benefit retirement funds), contact SBI at 60 Empire Drive, Suite 100, St. Paul, Minnesota, 55103, via email at minn.sbi@state.mn.us or telephone at 651.296.3328.



SECTION D

ADDITIONAL FINANCIAL STATEMENT DISCLOSURES

Asset Allocation

Long-Term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined using a building-block method. Estimates for expected future real rates of return (expected returns, net of inflation) were developed for each asset class using both long-term historical returns and long-term capital market expectation from a number of investment management and consulting organizations. The asset class estimates and the target allocations were then combined to produce a geometric, long-term expected rate of return for the portfolio. Inflation expectations were applied to derive the nominal rate of return for the portfolio. For each major asset class that is included in the pension fund's target asset allocation as of June 30, 2025, these estimates are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return (Geometric Mean)</u>
Domestic Equity	33.5%	5.10%
International Equity	16.5%	5.30%
Private Markets	25.0%	5.90%
Fixed Income and Cash	25.0%	0.75%
Total	<u>100.0%</u>	

The Minnesota State Board of Investment (SBI) compiled this data and the related investment notes and provided it to MSRS for GASB compliance purposes. MSRS furnished this information to us for inclusion within this report. We did not audit this information. We are not responsible for its accuracy or completeness.

For purposes of this valuation, the long-term expected rate of return assumption is 7.00%. This assumption is based on the State Employees Retirement Fund experience study report dated June 29, 2023.

Single Discount Rate

A Single Discount Rate of 7.00% was used to measure the total pension liability. This Single Discount Rate was based on the expected rate of return on pension plan investments of 7.00%. The projection of cash flows used to determine this Single Discount Rate assumed that member, employer, and state contributions will be made at the current statutory contribution rates. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 7.00%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is one percent lower (6.00%) or one percent higher (8.00%) than the current rate:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

(Dollars in Thousands)

	1% Decrease 6.00%	Current Single Discount Rate Assumption 7.00%	1% Increase 8.00%
Total Pension Liability	\$1,492,073	\$1,316,790	\$1,173,132
Net Position Restricted for Pensions	1,155,556	1,155,556	1,155,556
Net Pension Liability	<u>\$ 336,517</u>	<u>\$ 161,234</u>	<u>\$ 17,576</u>

For more information on the calculation of the single discount rate, refer to Section G of this report.

Note that we believe the 8.00% interest rate assumption does not comply with Actuarial Standards of Practice.

GASB Statement No. 68 Reconciliation (Dollars in Thousands)

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Deferred Outflows	Deferred Inflows	Total Pension Expense
Balance Beginning of Year	\$ 1,207,559	\$ 1,052,966	\$ 154,593	\$ 106,272	\$ 128,980	
Changes for the Year:						
Service Cost	\$ 31,757		\$ 31,757			\$ 31,757
Interest on Total Pension Liability	83,191		83,191			83,191
Interest on Fiduciary Net Position		\$ 73,313 ⁽¹⁾	(73,313)			(73,313)
Changes in Benefit Terms	34,447		34,447			34,447
Liability Experience Gains and Losses	39,037		39,037	\$ 32,531	\$ -	6,506
Changes in Assumptions	(9,206)		(9,206)	-	7,672	(1,534)
Recognition of Deferred Outflows/(Inflows) of Resources Arising from Prior Reporting Periods						
Liability Experience Gains/(Losses)				(9,345)	(836)	8,509
Assumption Changes				(15,024)	(11,733)	3,291
Investment Gains/(Losses)				(24,227)	(47,280)	(23,053)
Contributions - Employer		39,365 ⁽²⁾	(39,365)			
Contributions - Employees		19,595	(19,595)			(19,595)
Asset Gain/(Loss)		40,562 ⁽¹⁾	(40,562)	-	32,450	(8,112)
Benefit Payments and Refunds	(69,995)	(69,995)	-			
Administrative Expenses		(250)	250			250
Other changes		-	-			-
Net Changes	\$ 109,231	\$ 102,590	\$ 6,641	\$ (16,065)	\$ (19,727)	\$ 42,344
Balance End of Year	\$ 1,316,790	\$ 1,155,556	\$ 161,234	\$ 90,207	\$ 109,253	

⁽¹⁾ The sum of these items in column (b) equals the net investment income of \$113,875.

⁽²⁾ Includes supplemental State aid of \$1 million.



Summary of Population Statistics

	Actives	Terminated		Recipients			Total
		Deferred Retirement	Other Non-Vested	Service Retirement	Disability Retirement	Survivor	
Members on July 1, 2024	987	79	64	916	98	158	2,302
New members	77						77
Return to active	1	0	(1)	0	0	0	0
Terminated non-vested	(8)	0	8	0	0	0	0
Service retirements	(35)	(7)	0	42	0	0	0
Terminated deferred	(10)	10	0	0	0	0	0
Terminated refund/transfer	(2)	(1)	(2)	0	0	0	(5)
Deaths	0	0	0	(15)	(2)	(13)	(30)
New beneficiary	0	0	0	0	0	11	11
Disabled	(2)	0	0	0	2	0	0
Unexpected status change	0	0	0	2	1	0	3
Net change	21	2	5	29	1	(2)	56
Members on June 30, 2025	1,008	81	69	945	99	156	2,358

SECTION E

SUMMARY OF BENEFITS

Summary of Plan Provisions

Following is a summary of the major plan provisions used in the valuation of this report. MSRS is solely responsible for the validity, accuracy and comprehensiveness of this information. If any of the plan provisions shown below are not accurate and complete, the valuation results may differ significantly from those shown in this report and may require a revision of this report.

Plan year	July 1 through June 30.				
Eligibility	State troopers, conservation officers, certain crime bureau and gambling enforcement officers, and certain other persons listed in Minnesota Statutes 352B.011 subdivision 10.				
Contributions	Percent of Salary:				
	<u>Effective as of</u>	<u>Member</u>	<u>Regular Employer</u>	<u>Supplemental Employer</u>	<u>Total</u>
	July 1, 2021	15.40%	23.10%	7.00%	45.50%
	Supplemental employer contributions remain in effect until the plan is 110% funded on a market value of assets basis for a minimum of three consecutive years.				
	Member contributions are "picked up" according to the provisions of Internal Revenue Code 414(h).				
State contributions	<p>\$1 million paid annually on October 1 until both the Public Employees Retirement Association Police and Fire Plan and the State Patrol Retirement Fund attain 100% funded status for three consecutive years (on an actuarial value of assets basis).</p> <p>\$2.3 million paid annually on October 1, beginning October 1, 2025 through June 30, 2048.</p>				
Allowable service	Service during which member contributions were deducted. Includes period receiving temporary Worker's Compensation and reduced salary from employer. See Normal Retirement benefit definition on the following page for information about service limits.				
Salary	Salaries excluding lump sum payments at separation.				
Average salary	Average of the five highest years of Salary. Average Salary is based on all Allowable Service if less than five years. Average Salary is based on all years without regard to any service limits.				

Summary of Plan Provisions (Continued)

Retirement

Normal retirement benefit

Age/Service requirement	Age 55 and three years (ten years if first hired after June 30, 2013) of Allowable Service.
Amount	3.00% of Average Salary for each year of Allowable Service up to 33 years. Members with at least 28 years of service as of July 1, 2013, are not subject to this service limit. Member contributions made after the service cap will be refunded at retirement.

Early retirement benefit

Age/Service requirement	Age 50 and three years (ten years if first hired after June 30, 2013) of Allowable Service.
Amount	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement reduced by 0.34% for each month that the member is under age 55. If the effective date of retirement is before July 1, 2015, the reduction is 1/10% for each month that the member is under age 55 at the time of retirement.

Form of payment

Life annuity.

Actuarially equivalent options are:

50%, 75%, or 100% Joint and Survivor, or 15-year certain. If a Joint and Survivor benefit is elected and the beneficiary predeceases the annuitant, the annuitant's benefit increases to the Life Annuity amount. This "bounce back" is subsidized by the plan.

Benefit increases

1.25% per year.

A benefit recipient who has been receiving a benefit for at least 12 full months as of the June 30 of the calendar year immediately before the adjustment will receive a full increase. Members receiving benefits for at least one month but less than 12 full months as of the June 30 of the calendar year immediately before the adjustment will receive a pro rata increase.

Summary of Plan Provisions (Continued)

Disability

Duty disability benefit

**Age/Service
requirement**

Member who cannot perform duties as a direct result of a disability relating to an act of duty. Psychological treatment is required prior to approval for a duty disability benefit for a psychological condition relating to the member's occupation.

Amount

60% of Average Salary plus 3.00% of Average Salary for each year in excess of 20 years of Allowable Service (pro rata for completed months).

Payments cease at age 65 (age 55 if disabled after June 30, 2015) or the five-year anniversary of the effective date of the disability benefit, whichever is later. Payments stop earlier if disability ceases or death occurs.

Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.

Non-duty disability benefit

**Age/Service
requirement**

At least one year of Allowable Service and disability not related to covered employment.

Amount

Normal Retirement Benefit based on Allowable Service (minimum of 15 years) and Average Salary at disability without reduction for commencement before age 55.

Payments cease at age 65 (age 55 if disabled after June 30, 2015) or earlier if disability ceases or death occurs.

Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.

Total and permanent duty disability benefit

**Age/Service
requirement**

Member who cannot perform any substantial gainful activity as a direct result of a disability (physical or psychological) relating to an act of duty, which is expected to persist for a period of 12 months or more. If condition no longer qualifies as total and permanent, benefit will be recalculated under the duty disability benefit provisions.

Amount

99% of member's average monthly salary.

Summary of Plan Provisions (Continued)

Disability (Concluded)

Retirement after disability

Age/Service requirement	Age 65 (age 55 if disabled after June 30, 2015) with continued disability.
Amount	Optional annuity continues. Otherwise, normal retirement benefit equal to the disability benefit paid, or an actuarially equivalent option.
Form of payment	Same as for retirement.
Benefit increases	Same as for retirement.

Death

Surviving spouse benefit

Age/Service requirement	Member who is active or receiving a disability benefit or former member.
Amount	50% of Average Salary if member was active or occupational disability and either had less than three years (five years if first hired after June 30, 2013) of Allowable Service or was under age 55. Annuity is paid for life. Surviving spouse receives the 100% Joint and Survivor benefit commencing on the member's 55th birthday if member was active or a disability with three years (five years if first hired after June 30, 2013) of Allowable Service. A spouse who had been receiving the 50% benefit shall be entitled to the greater benefit. The surviving spouse of a former member receives the 100% Joint and Survivor benefit commencing on the member's 55th birthday if former member had three years (five years if first hired after June 30, 2013) of Allowable Service.
Benefit increases	Same as for retirement.

Surviving dependent children's benefit

Age/Service requirement	Member who is active or receiving a disability benefit. Child must be unmarried, under age 18 (or 23 if full-time student) and dependent upon the member.
Amount	10% of Average Salary for each child and \$20 per month prorated among all dependent children. Benefit must not be less than 50% nor exceed 70% of Average Salary.
Benefit increases	Same as for retirement.

Refund of contributions

Age/Service requirement	Member dies before receiving any retirement benefits and survivor benefits are not payable.
Amount	Member's contributions with 6.00% interest through June 30, 2011. Beginning July 1, 2011, a member's contributions increase with 4.00% interest. Beginning July 1, 2018, member contributions increase with 3.00% interest.



Summary of Plan Provisions (Continued)

Termination

Refund of contributions

**Age/Service
requirement**

Termination of state service.

Amount

Member's contributions with 6.00% interest through June 30, 2011. Beginning July 1, 2011, a member's contributions increase with 4.00% interest. Beginning July 1, 2018, member contributions increase with 3.00% interest. If a member is vested, a deferred annuity may be elected in lieu of a refund.

Deferred benefit

**Age/Service
requirement**

Three years (ten years if first hired after June 30, 2013) of Allowable Service.

Amount

Benefit is computed under law in effect at termination and increased by the following annual augmentation percentage:

- (a.) 0.00% before July 1, 1971;
- (b.) 5.00% from July 1, 1971, to January 1, 1981;
- (c.) 3.00% thereafter (2.50% if hired after June 30, 2006) until January 1, 2012;
- (d.) 2.00% after December 31, 2011, through December 31, 2018; and
- (e.) 0.00% thereafter.

Amount is payable at normal or early retirement.

If a member terminated employment prior to July 1, 1997, but was not eligible to commence their pension before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.

Optional form conversion factors

Effective July 1, 2019 and phased in over a 24-month period, actuarially equivalent factors based on the RP-2014 mortality table for healthy annuitants for a member turning age 55 in 2021, reflecting projected mortality improvements using Scale MP-2017, white collar adjustment, blended 90% males, 6.44% post-retirement interest, and 7.50% pre-retirement interest. Reflecting statutory requirements, joint and survivor factors are based on an interest assumption of 6.50%.

Summary of Plan Provisions (Concluded)

Combined service annuity	<p>Members are eligible for combined service benefits if they:</p> <ul style="list-style-type: none">(a.) Have sufficient allowable service in total that equals or exceeds the applicable service credit vesting requirement of the retirement plan with the longest applicable service credit vesting requirement;(b.) Have at least six months of allowable service credit in each plan worked under; and(c.) Are not in receipt of a benefit from another plan, or have applied for benefits with an effective date within one year. <p>Members who meet the above requirements must have their benefit based on the following:</p> <ul style="list-style-type: none">(a.) Allowable service in all covered plans are combined in order to determine eligibility for early retirement.(b.) Average salary is based on the high five consecutive years during their entire service in all covered plans.
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Changes in plan provisions	<p>The post-retirement benefit increase changed from 1.00% per year to 1.25% per year effective January 1, 2026.</p> <p>The threshold to cease supplemental employer contributions was changed from 100% funded for a minimum of three consecutive years to 110% funded for a minimum of three consecutive years (on a market value of assets basis).</p> <p>The threshold to cease the \$1 million annual State contribution was changed from the earlier of July 1, 2048 or 90% funded for three consecutive years to 100% funded for three consecutive years (on an actuarial value of assets basis).</p> <p>Additional annual direct state aid of \$2.3 million was added each October 1, beginning October 1, 2025 through June 30, 2048.</p>
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SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Methods Used for the Determination of Total Pension Liability and Related Values

Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Total Pension Liability.

Asset Valuation Method

Fair value of assets.

Summary of Actuarial Assumptions Used for the Determination of Total Pension Liability and Related Values

The following assumptions were used in valuing the liabilities and benefits under the plan. Unless otherwise noted, the assumptions are based on the last adopted experience study, dated July 16, 2024 and a review of inflation and investment assumptions included in the State Employees Retirement Fund Experience Study report dated June 29, 2023. The Allowance for Combined Service Annuity assumptions are based on an analysis completed by the LCPR actuary and documented in a report dated February 2025.

Investment return	7.00% per annum.
Single Discount Rate	7.00% per annum.
Salary increases	Reported salary at valuation date increased according to the rate table, to current fiscal year and annually for each future year. Prior fiscal year salary is annualized for members with less than one year of service.
Inflation	2.25% per year.
Payroll growth	3.00% per year.
Mortality rates	
Healthy pre-retirement	Pub-2010 Public Safety Employee Mortality Table adjusted for mortality improvements using mortality improvement scale MP-2021.
Healthy post-retirement	Pub-2010 Public Safety Healthy Retiree Mortality Table adjusted for mortality improvements using mortality improvement scale MP-2021.
Disabled	Pub-2010 Public Safety Disabled Retiree Mortality Table adjusted for mortality improvements using mortality improvement scale MP-2021.
Notes	The Pub-2010 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 18 to 80 and the annuitant mortality table contains mortality rates for ages 50 to 120. We have extended the annuitant mortality table as needed for members younger than age 50 who are receiving a benefit by deriving rates based on the employee table and the juvenile table. Similarly, we have extended the employee table as needed for members older than age 80 by deriving rates based on the annuitant table.
Retirement	Members retiring from active status are assumed to retire according to the age related rates shown in the rate table. Members who have attained the highest assumed retirement age are assumed to retire in one year. Note that plan changes reflected in this report may result in behavior changes that are not anticipated in the current retirement rates.
Withdrawal	Service-related rates based on experience; see table of sample rates.
Disability	Age-related rates based on experience; see table of sample rates. All incidences are assumed to be duty-related. There is no assumed incidence of the total and permanent duty disability benefit; actual incidence of this benefit will be monitored and may be included in future valuations.

Summary of Actuarial Assumptions (Continued)

Allowance for combined service annuity	Liabilities for former, vested members are increased by 9% and non-vested members are increased by 70% to account for the effect of some participants having eligibility for a Combined Service Annuity.
Administrative expenses	In the valuation year, equal to prior year administrative expenses expressed as percentage of prior year projected payroll. In each subsequent year, equal to the initial administrative expense percentage applied to payroll for the closed group.
Refund of contributions	For non-vested members, account balances accumulate interest until the assumed commencement date and are discounted back to the valuation date. Active members decrementing after becoming eligible for a benefit are assumed to take the contributions accumulated with interest if larger than the value of the benefit.
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 55.
Percentage married	85% of active members are assumed to be married. Actual marital status is used for members in payment status.
Age of spouse	Male members are assumed to have a female beneficiary two years younger and female members are assumed to have a male beneficiary two years older.
Eligible children	Each member may have two dependent children depending on member's age. Assumed first child is born at member's age 28 and second child at member's age 31.
Form of payment	<p>Married members retiring from active status are assumed to elect the subsidized Joint and Survivor form of annuity as follows:</p> <p style="text-align: center;">7.5% elect 50% Joint & Survivor option 12.5% elect 75% Joint & Survivor option 75.0% elect 100% Joint & Survivor option</p> <p>Remaining married and unmarried members are assumed to elect the Straight Life option.</p>
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.
Decrement operation	Withdrawal decrements do not operate during retirement eligibility. Decrements are assumed to occur mid-fiscal year.
Service credit accruals	It is assumed that members accrue one year of service credit per year.
Benefit service	Exact fractional service was used to determine the amount of benefit payable.
Pay increases	Pay increases are assumed to happen at the beginning of the fiscal year. This is equivalent to assuming that reported earnings are pensionable earnings for the year ending on the valuation date.
Final average salary	For present value of future benefit purposes, final average salary was calculated in accordance with pay increase assumptions, but was not permitted to fall below the final average salary reported in the data.

Summary of Actuarial Assumptions (Continued)

Unknown data for certain members

To prepare this report, GRS has used and relied on participant data supplied by the Fund. Although GRS has reviewed the data in accordance with Actuarial Standards of Practice No. 23, GRS has not verified or audited any of the data or information provided.

In cases where submitted data was missing or incomplete, the following assumptions were applied:

Data for active members:

There were 0 members reported with zero or invalid salary (<\$100).

There was 1 member reported with a gender of X or N. Male gender was assumed.

There were no members reported with 0 service, or a missing or invalid date of birth.

Data for terminated members:

There were 0 members reported without a benefit. We calculated benefits for these members using the reported Credited Service, Average Salary and Termination Date.

There were no members reported with a missing or invalid date of birth or gender.

Data for members receiving benefits:

There were 2 members reported with a gender of X or N. We assumed male gender for retirees and female gender for survivors. There were no members reported with a missing or invalid birth date.

There were no members reported without a benefit.

There were no survivors reported with an expired benefit.

There were 4 retirees reported with a bounceback annuity and an unreasonable reduction factor. A factor of 0.80, 0.85 and 0.90 was assumed for the 100%, 75% and 50% joint and survivor annuity, respectively.

There were 2 retirees reported with a survivor option and a survivor date of death. We assumed no benefit was payable to the survivor, and the member benefit already reflected the pop-up, if any.

For retirees who elected a survivor benefit option, we used the valuation assumptions if the survivor date of birth was missing or invalid (133 members) and/or the survivor gender was missing or X / N (146 members).

Summary of Actuarial Assumptions (Continued)

Changes in actuarial assumptions

The following changes in assumptions are effective with the July 1, 2025 valuation, as recommended in the most recent experience study (dated July 16, 2024):

- Assumed rates of salary increases were reduced slightly.
- Assumed rates of retirement were adjusted resulting in an overall increase in unreduced (Normal) retirements and a decrease in reduced (Early) retirements.
- Assumed rates of withdrawal were changed resulting in an increase in predicted terminations.
- Assumed rates of disability retirements were increased, with rates more substantially increased above age 40.
- The mortality table was changed from the Pub-2010 General Mortality Table to the Pub-2010 Public Safety Mortality Table, and the mortality improvement scale was updated from MP-2019 to MP-2021.
- Minor changes to form of payment assumptions for retirees.
- Minor changes to assumptions made with respect to missing participant data.

The combined service annuity load was changed from 13% to 9% for vested terminated members, and from 0% to 70% for non-vested terminated members.

Summary of Actuarial Assumptions (Continued)

Age in 2025	Percentage of Members Dying each Year*					
	Healthy Post- Retirement Mortality**		Healthy Pre- Retirement Mortality**		Disability Mortality**	
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.02%	0.12%	0.06%
25	0.04	0.02	0.04	0.02	0.13	0.08
30	0.06	0.04	0.06	0.04	0.17	0.12
35	0.07	0.05	0.07	0.05	0.21	0.17
40	0.09	0.06	0.08	0.06	0.24	0.20
45	0.14	0.09	0.09	0.07	0.27	0.22
50	0.18	0.13	0.11	0.08	0.33	0.27
55	0.29	0.25	0.16	0.12	0.45	0.44
60	0.51	0.45	0.27	0.17	0.74	0.71
65	0.87	0.72	0.41	0.21	1.18	1.00
70	1.43	1.15	0.70	0.39	1.74	1.39
75	2.46	1.97	1.25	0.77	2.82	2.09
80	4.46	3.53	2.34	1.60	4.90	3.53
85	8.22	6.32	7.36	5.54	8.29	6.32
90	14.64	11.14	14.64	11.14	14.64	11.14

* Generally, mortality rates are expected to increase as age increases (with the exception of young ages, where expected mortality may decrease as age increases). In cases where the application of the projection scale would reverse the nature of this trend, standard mortality rates have been adjusted slightly. The adjustment has no material effect on results.

** Rates are adjusted for mortality improvements using mortality improvement scale MP-2021 from a base year of 2010.

Percent of Members Decrementing Each Year Due to Disability Retirement	
Age	
20	0.100%
25	0.100
30	0.100
35	0.135
40	0.600
45	0.650
50	0.900
55	1.200
60+	1.200

Summary of Actuarial Assumptions (Concluded)

Age	Percent Retiring	Salary Scale		Percent of Members Terminating (Withdrawing) Each Year	
		Year	Increase	Year	
50	3 %	1	11.00%	1	6.00%
51	3	2	8.00	2	3.00
52	3	3	6.60	3	2.50
53	3	4	6.40	4	2.50
54	3	5	6.20	5	2.50
55	65	6	6.00	6	2.00
56	55	7	5.60	7	1.50
57	30	8	5.30	8	1.50
58	30	9	4.80	9	1.50
59	25	10	4.40	10	1.50
60+	100	11	4.00	11	1.50
		12	3.90	12	1.50
		13	3.80	13	1.50
		14	3.70	14	1.50
		15	3.60	15	1.00
		16	3.50	16	1.00
		17	3.40	17	1.00
		18	3.30	18	1.00
		19	3.30	19	1.00
		20	3.30	20	0.50
		21	3.30	21	0.50
		22	3.30	22+	0.50
		23	3.20		
		24	3.10		
		25+	3.00		

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Fiduciary Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the long-term expected rate of return is used as the discount rate. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal rate is required, as described in the following paragraph.

The *Single Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the plan fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 5.20%; and **the resulting single discount rate as of June 30, 2025 is 7.00%.**

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate. It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Single Discount Rate Development

Projection of Contributions (Dollars in Thousands)

Fiscal Year Ending	Projected Covered-Employee Payroll			Projected Contributions				
	Payroll for Current Employees	Payroll for New Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees	Contributions on Future Payroll toward Current UAL ¹	Additional State Contributions ²	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(d) = (a) x 15.4%	(e) = (a) x 23.1% ³	(f)	(g)	(h) = (d) + (e) + (f) + (g)
2025	\$ 127,240		\$ 127,240					
2026	134,055	\$ 1,262	135,317	\$ 20,645	\$ 40,351	\$ 223	\$ 3,300	\$ 64,518
2027	132,719	6,658	139,377	20,439	39,948	1,178	3,300	64,865
2028	130,475	13,083	143,558	20,093	39,273	2,314	3,300	64,980
2029	127,833	20,032	147,865	19,686	38,478	3,544	3,300	65,008
2030	125,237	27,064	152,301	19,287	37,696	4,788	3,300	65,070
2031	122,255	34,615	156,870	18,827	36,799	6,123	3,300	65,049
2032	118,794	42,782	161,576	18,294	35,757	7,568	3,300	64,919
2033	115,145	51,278	166,423	17,732	34,659	9,071	3,300	64,762
2034	111,202	60,214	171,416	17,125	33,472	10,652	3,300	64,549
2035	107,220	69,338	176,558	16,512	32,273	12,266	2,300	63,351
2036	103,329	78,526	181,855	15,913	31,102	13,891	2,300	63,206
2037	99,370	87,941	187,311	15,303	29,910	15,557	2,300	63,070
2038	95,462	97,468	192,930	14,701	28,734	17,242	2,300	62,977
2039	91,377	107,341	198,718	14,072	27,505	18,989	2,300	62,865
2040	86,671	118,008	204,679	13,347	26,088	20,876	2,300	62,611
2041	81,845	128,975	210,820	12,604	24,635	22,816	2,300	62,355
2042	76,740	140,404	217,144	11,818	23,099	24,838	2,300	62,054
2043	71,553	152,106	223,659	11,019	21,538	26,907	2,300	61,764
2044	66,777	163,592	230,369	10,284	15,426	17,488	2,300	45,497
2045	61,806	175,474	237,280	9,518	14,277	18,758	2,300	44,854
2046	56,393	188,005	244,398	8,685	13,027	20,098	2,300	44,109
2047	50,968	200,762	251,730	7,849	11,774	21,461	2,300	43,384
2048	45,371	213,911	259,282	6,987	10,481	22,867	2,300	42,635
2049	40,001	227,059	267,060	6,160	9,240	24,273	-	39,673
2050	34,944	240,128	275,072	5,381	8,072	25,670	-	39,123
2051	29,412	253,912	283,324	4,529	6,794	27,143	-	38,467
2052	23,896	267,928	291,824	3,680	5,520	28,642	-	37,841
2053	18,711	281,868	300,579	2,882	4,322	30,132	-	37,335
2054	14,413	295,183	309,596	2,220	3,330	31,555	-	37,104
2055	10,653	308,231	318,884	1,641	2,461	32,950	-	37,051
2056	7,551	320,899	328,450	1,163	1,744	34,304	-	37,211
2057	4,984	333,320	338,304	768	1,151	35,632	-	37,551
2058	2,906	345,547	348,453	448	671	36,939	-	38,058
2059	1,629	357,278	358,907	251	376	38,193	-	38,820
2060	829	368,845	369,674	128	192	39,430	-	39,749
2061	426	380,338	380,764	66	99	40,658	-	40,822
2062	214	391,973	392,187	33	49	41,902	-	41,984
2063	85	403,868	403,953	13	20	43,173	-	43,206
2064	30	416,041	416,071	5	7	44,475	-	44,486
2065	4	428,549	428,553	1	1	45,812	-	45,814
2066	-	441,410	441,410	-	-	47,187	-	47,187
2067	-	454,652	454,652	-	-	48,602	-	48,602
2068	-	468,292	468,292	-	-	50,060	-	50,060
2069	-	482,341	482,341	-	-	51,562	-	51,562
2070	-	496,811	496,811	-	-	53,109	-	53,109
2071	-	511,715	511,715	-	-	54,702	-	54,702
2072	-	527,067	527,067	-	-	56,343	-	56,343
2073	-	542,879	542,879	-	-	58,034	-	58,034
2074	-	559,165	559,165	-	-	59,775	-	59,775
2075	-	575,940	575,940	-	-	61,568	-	61,568

¹ Equal to contributions (45.50% of payroll for 18 years and 38.50% of payroll thereafter for new employees) net of normal cost and expenses (27.81% of payroll).

² State contributions equal to \$1.0 million are assumed to end after 9 years. Actual end date will depend on the funding status of this plan and the PERA Police and Fire Plan. Additional State contributions equal to \$2.3 Million will end in 23 years.

³ Ultimate contribution rate; projected 2025 through 2043 employer contribution rates are based on a 30.1% of pay contribution.

Totals may not add due to rounding.



Single Discount Rate Development

Projection of Contributions (Dollars in Thousands, Concluded)

Fiscal Year Ending	Projected Covered-Employee Payroll			Projected Contributions				
	Payroll for Current Employees	Payroll for New Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees	Contributions on Future Payroll toward Current UAL ¹	Additional State Contributions ²	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(d) = (a) x 15.4%	(e) = (a) x 23.1% ³	(f)	(g)	(h) = (d) + (e) + (f) + (g)
2076	\$ -	\$ 593,218	\$ 593,218	\$ -	\$ -	\$ 63,415	\$ -	\$ 63,415
2077	-	611,015	611,015	-	-	65,317	-	65,317
2078	-	629,345	629,345	-	-	67,277	-	67,277
2079	-	648,225	648,225	-	-	69,295	-	69,295
2080	-	667,672	667,672	-	-	71,374	-	71,374
2081	-	687,702	687,702	-	-	73,515	-	73,515
2082	-	708,333	708,333	-	-	75,721	-	75,721
2083	-	729,583	729,583	-	-	77,992	-	77,992
2084	-	751,471	751,471	-	-	80,332	-	80,332
2085	-	774,015	774,015	-	-	82,742	-	82,742
2086	-	797,235	797,235	-	-	85,224	-	85,224
2087	-	821,153	821,153	-	-	87,781	-	87,781
2088	-	845,787	845,787	-	-	90,415	-	90,415
2089	-	871,161	871,161	-	-	93,127	-	93,127
2090	-	897,296	897,296	-	-	95,921	-	95,921
2091	-	924,214	924,214	-	-	98,799	-	98,799
2092	-	951,941	951,941	-	-	101,762	-	101,762
2093	-	980,499	980,499	-	-	104,815	-	104,815
2094	-	1,009,914	1,009,914	-	-	107,960	-	107,960
2095	-	1,040,211	1,040,211	-	-	111,199	-	111,199
2096	-	1,071,418	1,071,418	-	-	114,535	-	114,535
2097	-	1,103,560	1,103,560	-	-	117,971	-	117,971
2098	-	1,136,667	1,136,667	-	-	121,510	-	121,510
2099	-	1,170,767	1,170,767	-	-	125,155	-	125,155
2100	-	1,205,890	1,205,890	-	-	128,910	-	128,910
2101	-	1,242,067	1,242,067	-	-	132,777	-	132,777
2102	-	1,279,329	1,279,329	-	-	136,760	-	136,760
2103	-	1,317,709	1,317,709	-	-	140,863	-	140,863
2104	-	1,357,240	1,357,240	-	-	145,089	-	145,089
2105	-	1,397,957	1,397,957	-	-	149,442	-	149,442
2106	-	1,439,896	1,439,896	-	-	153,925	-	153,925
2107	-	1,483,093	1,483,093	-	-	158,543	-	158,543
2108	-	1,527,586	1,527,586	-	-	163,299	-	163,299
2109	-	1,573,413	1,573,413	-	-	168,198	-	168,198
2110	-	1,620,616	1,620,616	-	-	173,244	-	173,244
2111	-	1,669,234	1,669,234	-	-	178,441	-	178,441
2112	-	1,719,311	1,719,311	-	-	183,794	-	183,794
2113	-	1,770,890	1,770,890	-	-	189,308	-	189,308
2114	-	1,824,017	1,824,017	-	-	194,987	-	194,987
2115	-	1,878,738	1,878,738	-	-	200,837	-	200,837
2116	-	1,935,100	1,935,100	-	-	206,862	-	206,862
2117	-	1,993,153	1,993,153	-	-	213,068	-	213,068
2118	-	2,052,947	2,052,947	-	-	219,460	-	219,460
2119	-	2,114,536	2,114,536	-	-	226,044	-	226,044
2120	-	2,177,972	2,177,972	-	-	232,825	-	232,825
2121	-	2,243,311	2,243,311	-	-	239,810	-	239,810
2122	-	2,310,610	2,310,610	-	-	247,004	-	247,004
2123	-	2,379,929	2,379,929	-	-	254,414	-	254,414
2124	-	2,451,326	2,451,326	-	-	262,047	-	262,047
2125	-	2,524,866	2,524,866	-	-	269,908	-	269,908

¹ Equal to contributions (45.50% of payroll for 18 years and 38.50% of payroll thereafter for new employees) net of normal cost and expenses (27.81% of payroll).

² State contributions equal to \$1.0 million are assumed to end after 9 years. Actual end date will depend on the funding status of this plan and the PERA Police and Fire Plan. Additional State contributions equal to \$2.3 million will end in 23 years.

³ Ultimate contribution rate; projected 2025 through 2043 employer contribution rates are based on a 30.1% of pay contribution.

Totals may not add due to rounding.



Single Discount Rate Development

Projection of Plan Fiduciary Net Position (Dollars in Thousands)

Fiscal Year Ending	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.00%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2026	\$ 1,155,556	\$ 64,518	\$ 74,814	\$ 282	\$ 80,525	\$ 1,225,504
2027	1,225,504	64,865	75,795	279	85,400	1,299,695
2028	1,299,695	64,980	79,108	274	90,483	1,375,776
2029	1,375,776	65,008	82,539	268	95,692	1,453,667
2030	1,453,667	65,070	85,881	263	101,032	1,533,625
2031	1,533,625	65,049	89,459	257	106,505	1,615,464
2032	1,615,464	64,919	93,222	249	112,100	1,699,012
2033	1,699,012	64,762	96,961	242	117,815	1,784,385
2034	1,784,385	64,549	100,266	234	123,670	1,872,105
2035	1,872,105	63,351	103,449	225	129,660	1,961,442
2036	1,961,442	63,206	106,815	217	135,793	2,053,409
2037	2,053,409	63,070	110,091	209	142,114	2,148,293
2038	2,148,293	62,977	113,389	200	148,639	2,246,320
2039	2,246,320	62,865	116,699	192	155,383	2,347,678
2040	2,347,678	62,611	120,440	182	162,341	2,452,009
2041	2,452,009	62,355	124,342	172	169,502	2,559,352
2042	2,559,352	62,054	128,574	161	176,860	2,669,531
2043	2,669,531	61,764	132,858	150	184,416	2,782,704
2044	2,782,704	45,497	136,804	140	191,643	2,882,899
2045	2,882,899	44,854	140,925	130	198,493	2,985,190
2046	2,985,190	44,109	145,481	118	205,471	3,089,171
2047	3,089,171	43,384	149,862	107	212,575	3,195,161
2048	3,195,161	42,635	154,429	95	219,811	3,303,083
2049	3,303,083	39,673	158,741	84	227,116	3,411,046
2050	3,411,046	39,123	162,776	73	234,516	3,521,836
2051	3,521,836	38,467	167,089	62	242,101	3,635,253
2052	3,635,253	37,841	171,277	50	249,875	3,751,642
2053	3,751,642	37,335	175,145	39	257,872	3,871,666
2054	3,871,666	37,104	177,999	30	266,168	3,996,908
2055	3,996,908	37,051	180,473	22	274,848	4,128,313
2056	4,128,313	37,211	182,124	16	283,995	4,267,379
2057	4,267,379	37,551	183,355	10	293,699	4,415,264
2058	4,415,264	38,058	183,910	6	304,050	4,573,456
2059	4,573,456	38,820	183,667	3	315,158	4,743,764
2060	4,743,764	39,749	182,750	2	327,143	4,927,904
2061	4,927,904	40,822	181,235	1	340,122	5,127,612
2062	5,127,612	41,984	179,466	-	354,202	5,344,332
2063	5,344,332	43,206	177,360	-	369,487	5,579,666
2064	5,579,666	44,486	175,043	-	386,084	5,835,194
2065	5,835,194	45,814	172,479	-	404,105	6,112,634
2066	6,112,634	47,187	169,702	-	423,669	6,413,787
2067	6,413,787	48,602	166,717	-	444,901	6,740,574
2068	6,740,574	50,060	163,519	-	467,936	7,095,052
2069	7,095,052	51,562	160,115	-	492,919	7,479,417
2070	7,479,417	53,109	156,512	-	520,001	7,896,016
2071	7,896,016	54,702	152,720	-	549,349	8,347,347
2072	8,347,347	56,343	148,748	-	581,135	8,836,078
2073	8,836,078	58,034	144,606	-	615,547	9,365,052
2074	9,365,052	59,775	140,302	-	652,783	9,937,308
2075	9,937,308	61,568	135,843	-	693,056	10,556,090

For purposes of this projection, we assumed the 23.1% regular employer statutory contribution rate would continue after the plan becomes fully funded.

Totals may not add due to rounding.



Single Discount Rate Development

Projection of Plan Fiduciary Net Position

(Dollars in Thousands, Concluded)

Fiscal Year Ending	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.00%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2076	\$ 10,556,090	\$ 63,415	\$ 131,232	\$ -	\$ 736,593	\$ 11,224,865
2077	11,224,865	65,317	126,473	-	783,636	11,947,345
2078	11,947,345	67,277	121,567	-	834,446	12,727,501
2079	12,727,501	69,295	116,515	-	889,300	13,569,582
2080	13,569,582	71,374	111,318	-	948,496	14,478,134
2081	14,478,134	73,515	105,980	-	1,012,352	15,458,022
2082	15,458,022	75,721	100,507	-	1,081,209	16,514,444
2083	16,514,444	77,992	94,909	-	1,155,429	17,652,957
2084	17,652,957	80,332	89,200	-	1,235,402	18,879,492
2085	18,879,492	82,742	83,401	-	1,321,542	20,200,374
2086	20,200,374	85,224	77,537	-	1,414,291	21,622,352
2087	21,622,352	87,781	71,640	-	1,514,120	23,152,613
2088	23,152,613	90,415	65,746	-	1,621,532	24,798,814
2089	24,798,814	93,127	59,896	-	1,737,060	26,569,105
2090	26,569,105	95,921	54,138	-	1,861,275	28,472,163
2091	28,472,163	98,799	48,517	-	1,994,781	30,517,226
2092	30,517,226	101,762	43,084	-	2,138,225	32,714,129
2093	32,714,129	104,815	37,887	-	2,292,292	35,073,349
2094	35,073,349	107,960	32,971	-	2,457,715	37,606,052
2095	37,606,052	111,199	28,375	-	2,635,273	40,324,149
2096	40,324,149	114,535	24,133	-	2,825,801	43,240,352
2097	43,240,352	117,971	20,271	-	3,030,186	46,368,237
2098	46,368,237	121,510	16,805	-	3,249,379	49,722,321
2099	49,722,321	125,155	13,740	-	3,484,396	53,318,132
2100	53,318,132	128,910	11,072	-	3,736,324	57,172,294
2101	57,172,294	132,777	8,788	-	4,006,327	61,302,610
2102	61,302,610	136,760	6,866	-	4,295,652	65,728,156
2103	65,728,156	140,863	5,278	-	4,605,636	70,469,377
2104	70,469,377	145,089	3,991	-	4,937,711	75,548,187
2105	75,548,187	149,442	2,968	-	5,293,413	80,988,073
2106	80,988,073	153,925	2,172	-	5,674,387	86,814,212
2107	86,814,212	158,543	1,566	-	6,082,396	93,053,585
2108	93,053,585	163,299	1,113	-	6,519,331	99,735,102
2109	99,735,102	168,198	784	-	6,987,218	106,889,734
2110	106,889,734	173,244	548	-	7,488,224	114,550,653
2111	114,550,653	178,441	384	-	8,024,672	122,753,383
2112	122,753,383	183,794	271	-	8,599,051	131,535,958
2113	131,535,958	189,308	194	-	9,214,024	140,939,096
2114	140,939,096	194,987	143	-	9,872,441	151,006,381
2115	151,006,381	200,837	108	-	10,577,353	161,784,464
2116	161,784,464	206,862	84	-	11,332,027	173,323,270
2117	173,323,270	213,068	67	-	12,139,958	185,676,229
2118	185,676,229	219,460	54	-	13,004,885	198,900,520
2119	198,900,520	226,044	44	-	13,930,813	213,057,333
2120	213,057,333	232,825	36	-	14,922,023	228,212,146
2121	228,212,146	239,810	29	-	15,983,101	244,435,027
2122	244,435,027	247,004	23	-	17,118,950	261,800,958
2123	261,800,958	254,414	18	-	18,334,820	280,390,174
2124	280,390,174	262,047	14	-	19,636,328	300,288,535
2125	300,288,535	269,908	33	-	21,029,483	321,587,894

For purposes of this projection, we assumed the 23.1% statutory regular employer statutory contribution rate would continue after the plan becomes fully funded.

Totals may not add due to rounding.



Single Discount Rate Development

Present Values of Projected Benefits (Dollars in Thousands)

Fiscal Year Ending	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/(1+sdr)^(a-.5)
2026	\$ 1,155,556	\$ 74,814	\$ 74,814	\$ 0	\$ 72,325	\$ 0	\$ 72,325
2027	1,225,504	75,795	75,795	0	68,480	0	68,480
2028	1,299,695	79,108	79,108	0	66,798	0	66,798
2029	1,375,776	82,539	82,539	0	65,136	0	65,136
2030	1,453,667	85,881	85,881	0	63,339	0	63,339
2031	1,533,625	89,459	89,459	0	61,661	0	61,661
2032	1,615,464	93,222	93,222	0	60,052	0	60,052
2033	1,699,012	96,961	96,961	0	58,374	0	58,374
2034	1,784,385	100,266	100,266	0	56,415	0	56,415
2035	1,872,105	103,449	103,449	0	54,398	0	54,398
2036	1,961,442	106,815	106,815	0	52,493	0	52,493
2037	2,053,409	110,091	110,091	0	50,564	0	50,564
2038	2,148,293	113,389	113,389	0	48,671	0	48,671
2039	2,246,320	116,699	116,699	0	46,815	0	46,815
2040	2,347,678	120,440	120,440	0	45,155	0	45,155
2041	2,452,009	124,342	124,342	0	43,568	0	43,568
2042	2,559,352	128,574	128,574	0	42,104	0	42,104
2043	2,669,531	132,858	132,858	0	40,660	0	40,660
2044	2,782,704	136,804	136,804	0	39,129	0	39,129
2045	2,882,899	140,925	140,925	0	37,671	0	37,671
2046	2,985,190	145,481	145,481	0	36,345	0	36,345
2047	3,089,171	149,862	149,862	0	34,990	0	34,990
2048	3,195,161	154,429	154,429	0	33,697	0	33,697
2049	3,303,083	158,741	158,741	0	32,372	0	32,372
2050	3,411,046	162,776	162,776	0	31,023	0	31,023
2051	3,521,836	167,089	167,089	0	29,762	0	29,762
2052	3,635,253	171,277	171,277	0	28,512	0	28,512
2053	3,751,642	175,145	175,145	0	27,249	0	27,249
2054	3,871,666	177,999	177,999	0	25,881	0	25,881
2055	3,996,908	180,473	180,473	0	24,524	0	24,524
2056	4,128,313	182,124	182,124	0	23,129	0	23,129
2057	4,267,379	183,355	183,355	0	21,762	0	21,762
2058	4,415,264	183,910	183,910	0	20,400	0	20,400
2059	4,573,456	183,667	183,667	0	19,040	0	19,040
2060	4,743,764	182,750	182,750	0	17,706	0	17,706
2061	4,927,904	181,235	181,235	0	16,410	0	16,410
2062	5,127,612	179,466	179,466	0	15,187	0	15,187
2063	5,344,332	177,360	177,360	0	14,027	0	14,027
2064	5,579,666	175,043	175,043	0	12,938	0	12,938
2065	5,835,194	172,479	172,479	0	11,915	0	11,915
2066	6,112,634	169,702	169,702	0	10,956	0	10,956
2067	6,413,787	166,717	166,717	0	10,059	0	10,059
2068	6,740,574	163,519	163,519	0	9,221	0	9,221
2069	7,095,052	160,115	160,115	0	8,438	0	8,438
2070	7,479,417	156,512	156,512	0	7,708	0	7,708
2071	7,896,016	152,720	152,720	0	7,030	0	7,030
2072	8,347,347	148,748	148,748	0	6,399	0	6,399
2073	8,836,078	144,606	144,606	0	5,814	0	5,814
2074	9,365,052	140,302	140,302	0	5,272	0	5,272
2075	9,937,308	135,843	135,843	0	4,770	0	4,770

Totals may not add due to rounding.



Single Discount Rate Development

Present Values of Projected Benefits

(Dollars in Thousands, Concluded)

Fiscal Year Ending	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
2076	\$ 10,556,090	\$ 131,232	\$ 131,232	\$ -	\$ 4,307	\$ -	\$ 4,307
2077	11,224,865	126,473	126,473	-	3,879	-	3,879
2078	11,947,345	121,567	121,567	-	3,485	-	3,485
2079	12,727,501	116,515	116,515	-	3,121	-	3,121
2080	13,569,582	111,318	111,318	-	2,787	-	2,787
2081	14,478,134	105,980	105,980	-	2,480	-	2,480
2082	15,458,022	100,507	100,507	-	2,198	-	2,198
2083	16,514,444	94,909	94,909	-	1,940	-	1,940
2084	17,652,957	89,200	89,200	-	1,704	-	1,704
2085	18,879,492	83,401	83,401	-	1,489	-	1,489
2086	20,200,374	77,537	77,537	-	1,294	-	1,294
2087	21,622,352	71,640	71,640	-	1,117	-	1,117
2088	23,152,613	65,746	65,746	-	958	-	958
2089	24,798,814	59,896	59,896	-	816	-	816
2090	26,569,105	54,138	54,138	-	689	-	689
2091	28,472,163	48,517	48,517	-	577	-	577
2092	30,517,226	43,084	43,084	-	479	-	479
2093	32,714,129	37,887	37,887	-	394	-	394
2094	35,073,349	32,971	32,971	-	320	-	320
2095	37,606,052	28,375	28,375	-	257	-	257
2096	40,324,149	24,133	24,133	-	205	-	205
2097	43,240,352	20,271	20,271	-	161	-	161
2098	46,368,237	16,805	16,805	-	124	-	124
2099	49,722,321	13,740	13,740	-	95	-	95
2100	53,318,132	11,072	11,072	-	72	-	72
2101	57,172,294	8,788	8,788	-	53	-	53
2102	61,302,610	6,866	6,866	-	39	-	39
2103	65,728,156	5,278	5,278	-	28	-	28
2104	70,469,377	3,991	3,991	-	20	-	20
2105	75,548,187	2,968	2,968	-	14	-	14
2106	80,988,073	2,172	2,172	-	9	-	9
2107	86,814,212	1,566	1,566	-	6	-	6
2108	93,053,585	1,113	1,113	-	4	-	4
2109	99,735,102	784	784	-	3	-	3
2110	106,889,734	548	548	-	2	-	2
2111	114,550,653	384	384	-	1	-	1
2112	122,753,383	271	271	-	1	-	1
2113	131,535,958	194	194	-	1	-	1
2114	140,939,096	143	143	-	-	-	-
2115	151,006,381	108	108	-	-	-	-
2116	161,784,464	84	84	-	-	-	-
2117	173,323,270	67	67	-	-	-	-
2118	185,676,229	54	54	-	-	-	-
2119	198,900,520	44	44	-	-	-	-
2120	213,057,333	36	36	-	-	-	-
2121	228,212,146	29	29	-	-	-	-
2122	244,435,027	23	23	-	-	-	-
2123	261,800,958	18	18	-	-	-	-
2124	280,390,174	14	14	-	-	-	-
2125	300,288,535	33	33	-	-	-	-
Totals					\$ 1,661,470	\$ -	\$ 1,661,470

Totals may not add due to rounding.



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

<i>Accrued Service</i>	Service credited under the system which was rendered before the date of the actuarial valuation.
<i>Actuarial Accrued Liability (AAL)</i>	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as “accrued liability” or “actuarial liability.”
<i>Actuarial Assumptions</i>	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
<i>Actuarial Cost Method</i>	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
<i>Actuarial Equivalent</i>	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
<i>Actuarial Gain (Loss)</i>	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
<i>Actuarial Present Value (APV)</i>	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future benefit payments at predetermined rates of interest to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
<i>Actuarial Valuation</i>	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
<i>Actuarial Valuation Date</i>	The date as of which an actuarial valuation is performed.
<i>Actuarially Determined Contribution (ADC)</i>	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically, the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

Glossary of Terms

<i>Amortization Method</i>	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).
<i>Amortization Payment</i>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<i>Cost-of-Living Adjustments</i>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i>	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
<i>Covered-Employee Payroll</i>	The payroll of covered employees, which is typically only the pensionable pay (meets the statutory salary definition) and does not include pay above any pay cap.
<i>Deferred Inflows and Outflows of Resources</i>	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
<i>Discount Rate or Single Discount Rate</i>	<p>For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:</p> <ol style="list-style-type: none">1. The benefit payments to be made while the pension plans’ fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
<i>Entry Age Actuarial Cost Method or Entry Age Normal (EAN)</i>	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

Glossary of Terms

<i>Fiduciary Net Position</i>	The fiduciary net position is the value of the net assets of the trust restricted for pension benefits.
<i>GASB</i>	The Governmental Accounting Standards Board is an organization that exists with authority to promulgate accounting standards for state and local governmental entities.
<i>Long-Term Expected Rate of Return</i>	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
<i>Money-Weighted Rate of Return</i>	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
<i>Multiple-Employer Defined Benefit Pension Plan</i>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<i>Municipal Bond Rate</i>	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
<i>Net Pension Liability (NPL)</i>	The NPL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.
<i>Non-Employer Contributing Entities</i>	Non-employer contributing entities are entities that make contributing to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting Statements No. 67 and No. 68 plan members are not considered non-employer contributing entities.
<i>Normal Cost</i>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
<i>Other Postemployment Benefits (OPEB)</i>	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
<i>Real Rate of Return</i>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<i>Service Cost</i>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Glossary of Terms

Total Pension Expense

The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost
2. Interest on the Total Pension Liability
3. Current-Period Changes in Benefit Terms
4. Employee Contributions
5. Projected Earnings on Plan Investments
6. Pension Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to the difference between expected and actual in measurement of the Total Pension Liability
9. Recognition of Outflow (Inflow) of Resources due to Assumption Changes
10. Recognition of Outflow (Inflow) of Resources due to the difference between projected and actual earnings on pension plan investments

Total Pension Liability (TPL)

The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL)

The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets

The valuation assets are the plan fiduciary net position used in determining the net position liability of the plan. For purposes of the GASB Statement No. 67, the asset valuation method is equal to the market value of assets.