

Public Employees Retirement Association of Minnesota

Public Employees Police and Fire Plan

GASB Statements No. 67 and No. 68 Accounting and
Financial Reporting for Pensions

June 30, 2025





November 19, 2025

Public Employees Retirement Association of Minnesota
Public Employees Police and Fire Plan
St. Paul, Minnesota

Dear Trustees of the Public Employees Police and Fire Plan:

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 Public Employees Police and Fire Plan, as amended by 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 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 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 obligations. 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. PERA is responsible for preparing the Schedule of Employer Allocations and the Schedule of Pension Amounts by Employer. This report may be provided to parties other than the Public Employees Retirement Association (PERA) only in its entirety and only with the permission of PERA. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by PERA, 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 Plan 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 Public Employees Police and Fire Plan 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.

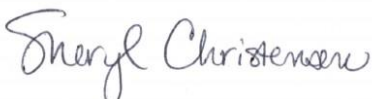
The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

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:rmn



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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
Employer's Fiscal Year Ending Date (Reporting Date)	Varies by Employer

Membership

Number of	
- Service Retirements	8,823
- Survivors	2,040
- Disability Retirements	2,257
- Deferred Retirements	1,933
- Terminated Other Non-Vested	889
- Active Members	12,326
- Total	28,268
Covered Payroll	\$ 1,430,822 ⁽¹⁾

Net Pension Liability

Total Pension Liability	\$ 14,249,944
Plan Fiduciary Net Position	\$ 13,078,280
Net Pension Liability	\$ 1,171,664
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	91.78%
Net Pension Liability as a Percentage of Covered Payroll	81.89%

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	5.20% ⁽²⁾
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)	\$ 288,676
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Deferred Outflows and Inflows 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	\$ 541,346	\$ -
Changes in assumptions	\$ 888,497	\$ 1,468,046
Net difference between projected and actual earnings on pension plan investments	\$ 286,532	\$ 809,462
Total	\$ 1,716,375	\$ 2,277,508

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

⁽²⁾ 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.



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. Governmental Accounting Standards Board (GASB) Statement No. 82, *Pension Issues*, is an amendment to 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 Public Employees Police and Fire Plan subsequent to the measurement date of June 30, 2025.

The pension expense 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 liability 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 to 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.

Both GASB Statements No. 67 and No. 68 require the notes to 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.

Required Supplementary Information

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
- 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 normal cost of the plan is expected to remain approximately level as a percent of pay;
2. The funded status of the plan is expected to gradually improve and is expected to be 100% funded within the next 23 years; and
3. The unfunded liability will grow initially as a dollar amount for 3 years (based on the current layered amortization schedule and if contributions are equal to the required contribution 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

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 long-term 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	\$ 308,601
2. Interest on the Total Pension Liability	\$ 921,822
3. Current-Period Benefit Changes	\$ 187,132
4. Employee Contributions (made negative for addition here)	\$ (168,837)
5. Projected Earnings on Plan Investments (made negative for addition here)	\$ (834,520)
6. Pension Plan Administrative Expense	\$ 1,646
7. Other Changes in Plan Fiduciary Net Position	\$ (664)
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>	\$ 34,316
9. Recognition of Outflow (Inflow) of Resources due to assumption changes <i>Arising from Current Reporting Period</i>	\$ (3,639)
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>	\$ (93,112)
11. Increase/(Decrease) from Experience in the Current Reporting Period	<u>\$ 352,745</u>
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>	\$ 142,937
13. Recognition of Outflow (Inflow) of Resources due to assumption changes <i>Arising from Prior Reporting Periods</i>	\$ 70,283
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>	\$ (277,289)
15. Total Pension Expense / (Income)	<u>\$ 288,676</u>

Recognition of Deferred Outflows and Inflows of Resources

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 161,363 years. Additionally, the total plan membership (active employees and inactive employees) was 27,720. 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 6.00 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	\$ 205,896
2. Assumption Changes (gains) or losses	\$ (21,831)
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	6.0000
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	\$ 34,316
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	<u>\$ (3,639)</u>
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	30,677
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	\$ 171,580
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	<u>\$ (18,192)</u>
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	153,388

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (465,559)
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	\$ (93,112)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (372,447)

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 of Resources
1. Due to Liabilities	\$ 734,950	\$ 491,053	\$ 243,897
2. Due to Assets	286,533	656,934	(370,401)
3. Total	\$ 1,021,483	\$ 1,147,987	\$ (126,504)

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 177,253	\$ -	\$ 177,253
2. Assumption Changes	557,697	491,053	66,644
3. Net Difference between projected and actual earnings on pension plan investments	286,533	656,934	(370,401)
4. Total	\$ 1,021,483	\$ 1,147,987	\$ (126,504)

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 of Resources
1. Differences between expected and actual experience	\$ 541,346	\$ -	\$ 541,346
2. Assumption Changes	888,497	1,468,046	(579,549)
3. Net Difference between projected and actual earnings on pension plan investments	286,532	809,462	(522,930)
4. Total	\$ 1,716,375	\$ 2,277,508	\$ (561,133)

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

Year Ending June 30	Net Deferred Outflows of Resources
2026	\$ 274,390
2027	(260,503)
2028	(573,581)
2029	(32,117)
2030	30,678
Thereafter	0
Total	\$ (561,133)

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	\$ 30,348	6.0000	\$ 5,058	\$ 0	0.0000
2021	128,782	6.0000	21,463	21,463	1.0000
2022	187,572	6.0000	31,262	62,524	2.0000
2023	329,023	6.0000	54,837	164,512	3.0000
2024	181,901	6.0000	30,317	121,267	4.0000
2025	205,896	6.0000	34,316	171,580	5.0000
Total			\$ 177,253	\$ 541,346	
Deferred Outflow (Inflow) Due to Assumption Changes					
2020	\$ (24,785)	6.0000	\$ (4,130)	\$ 0	0.0000
2021	1,361,379	6.0000	226,896	226,896	1.0000
2022	1,984,805	6.0000	330,801	661,601	2.0000
2023	(2,899,706)	6.0000	(483,284)	(1,449,854)	3.0000
2024	0	6.0000	0	0	4.0000
2025	(21,831)	6.0000	(3,639)	(18,192)	5.0000
Total			\$ 66,644	\$ (579,549)	
Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments					
2021	\$ (2,009,123)	5.0000	\$ (401,824)	\$ 0	0.0000
2022	1,432,664	5.0000	286,533	286,532	1.0000
2023	(244,907)	5.0000	(48,981)	(97,964)	2.0000
2024	(565,085)	5.0000	(113,017)	(339,051)	3.0000
2025	(465,559)	5.0000	(93,112)	(372,447)	4.0000
Total			\$ (370,401)	\$ (522,930)	
Deferred Outflow (Inflow) Due to All Sources					
Total			\$ (126,504)	\$ (561,133)	

Statement of Fiduciary Net Position (Dollars in Thousands)

	Market Value	
	June 30, 2025	June 30, 2024
Assets in Trust		
Cash, Equivalents, Short Term Securities	\$ 372,220	\$ 207,797
Fixed Income	\$ 3,019,634	\$ 2,817,784
Equity	\$ 6,800,678	\$ 6,096,214
SBI Alternative	\$ 2,885,288	\$ 2,941,285
Other	\$ -	\$ -
Total Assets in Trust	\$ 13,077,820	\$ 12,063,080
Assets Receivable	\$ 18,557	\$ 19,120
Amounts Payable	\$ (18,097)	\$ (16,968)
Net Position Restricted for Pensions	\$ 13,078,280	\$ 12,065,232

Statement of Changes in Fiduciary Net Position

(Dollars in Thousands)

Change in Assets	Market Value	
Year Ending	June 30, 2025	June 30, 2024
1. Fund balance at market value at beginning of year	\$ 12,065,232	\$ 11,038,928
2. Contributions		
a. Member	\$ 168,837	\$ 152,987
b. Employer	\$ 259,631	\$ 236,216
c. Other sources	\$ 18,000	\$ 18,000
d. Total contributions	\$ 446,468	\$ 407,203
3. Investment income		
a. Investment income/(loss)	\$ 1,347,626	\$ 1,372,483
b. Investment expenses	\$ (47,547)	\$ (45,207)
c. Net subtotal	\$ 1,300,079	\$ 1,327,276
4. Other	\$ 664	\$ 18,781
5. Total additions: (2.d.) + (3.c.) + (4.)	\$ 1,747,211	\$ 1,753,260
6. Benefits Paid		
a. Annuity benefits	\$ (727,044)	\$ (720,158)
b. Refunds	\$ (5,473)	\$ (5,051)
c. Total benefits paid	\$ (732,517)	\$ (725,209)
7. Expenses		
a. Other	\$ -	\$ -
b. Administrative	\$ (1,646)	\$ (1,747)
c. Total expenses	\$ (1,646)	\$ (1,747)
8. Total deductions: (6.c.) + (7.c.)	\$ (734,163)	\$ (726,956)
9. Net increase (decrease) in net position: (5) + (8)	\$ 1,013,048	\$ 1,026,304
10. Net position restricted for pensions	\$ 13,078,280	\$ 12,065,232
11. State Board of Investment calculated investment return [#]	10.9%	12.3%

[#] Provided by PERA and calculated by the State Board of Investment.

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	\$ 308,601
2. Interest on the total pension liability	\$ 921,822
3. Changes of benefit terms	\$ 187,132
4. Difference between expected and actual experience of the total pension liability	\$ 205,896
5. Changes of assumptions	\$ (21,831)
6. Benefit payments, including refunds of employee contributions	\$ (732,517)
7. Net change in total pension liability	\$ 869,103
8. Total pension liability – beginning	\$ 13,380,841
9. Total pension liability – ending	<u><u>\$ 14,249,944</u></u>

B. Plan fiduciary net position

1. Contributions – employer	\$ 277,631
2. Contributions – employee	\$ 168,837
3. Net investment income	\$ 1,300,079
4. Benefit payments, including refunds of employee contributions	\$ (732,517)
5. Pension Plan administrative expense	\$ (1,646)
6. Other	\$ 664
7. Net change in plan fiduciary net position	\$ 1,013,048
8. Plan fiduciary net position – beginning	\$ 12,065,232
9. Plan fiduciary net position – ending	<u><u>\$ 13,078,280</u></u>

C. Net pension liability

\$ 1,171,664

D. Plan fiduciary net position as a percentage of the total pension liability

91.78%

E. Covered-employee payroll

\$ 1,430,822 ⁽¹⁾

F. Net pension liability as a percentage of covered-employee payroll

81.89%

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

Schedules of Required Supplementary Information

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	\$ 308,601	\$ 280,316	\$ 385,544	\$ 282,658	\$ 226,012	\$ 217,127	\$ 209,098	\$ 203,131	\$ 318,401	\$ 194,352
Interest on the Total Pension Liability	\$ 921,822	\$ 878,035	\$ 789,647	\$ 779,519	\$ 758,002	\$ 729,945	\$ 703,640	\$ 682,903	\$ 616,740	\$ 658,198
Benefit Changes	\$ 187,132	\$ -	\$ 67,743	\$ -	\$ -	\$ -	\$ -	\$ (50,771)	\$ -	\$ -
Difference between Expected and Actual Experience	\$ 205,896	\$ 181,901	\$ 329,023	\$ 187,572	\$ 128,782	\$ 30,348	\$ 14,491	\$ 21,720	\$ 37,292	\$ (375,575)
Assumption Changes	\$ (21,831)	\$ -	\$ (2,899,706)	\$ 1,984,805	\$ 1,361,379	\$ (24,785)	\$ (19,898)	\$ (42,807)	\$ (2,300,201)	\$ 2,650,350
Benefit Payments	\$ (727,044)	\$ (720,158)	\$ (669,804)	\$ (633,255)	\$ (592,687)	\$ (567,040)	\$ (547,699)	\$ (528,468)	\$ (512,379)	\$ (498,608)
Refunds	\$ (5,473)	\$ (5,051)	\$ (3,747)	\$ (4,196)	\$ (3,060)	\$ (3,181)	\$ (3,283)	\$ (1,902)	\$ (2,119)	\$ (2,391)
Net Change in Total Pension Liability	\$ 869,103	\$ 615,043	\$ (2,001,300)	\$ 2,597,103	\$ 1,878,428	\$ 382,414	\$ 356,349	\$ 283,806	\$ (1,842,266)	\$ 2,626,326
Total Pension Liability - Beginning	\$ 13,380,841	\$ 12,765,798	\$ 14,767,098	\$ 12,169,995	\$ 10,291,567	\$ 9,909,153	\$ 9,552,804	\$ 9,268,998	\$ 11,111,264	\$ 8,484,938
Total Pension Liability - Ending (a)	\$ 14,249,944	\$ 13,380,841	\$ 12,765,798	\$ 14,767,098	\$ 12,169,995	\$ 10,291,567	\$ 9,909,153	\$ 9,552,804	\$ 9,268,998	\$ 11,111,264
Plan Fiduciary Net Position										
Employer Contributions ⁽¹⁾	\$ 277,631	\$ 273,613	\$ 241,305	\$ 224,416	\$ 219,129	\$ 207,319	\$ 188,317	\$ 179,781	\$ 175,329	\$ 165,065
Employee Contributions	\$ 168,837	\$ 152,987	\$ 144,470	\$ 133,023	\$ 129,351	\$ 123,525	\$ 111,762	\$ 105,479	\$ 101,984	\$ 95,172
Pension Plan Net Investment Income	\$ 1,300,079	\$ 1,327,276	\$ 912,519	\$ (700,942)	\$ 2,672,826	\$ 368,949	\$ 609,512	\$ 813,966	\$ 1,058,942	\$ (8,949)
Benefit Payments	\$ (727,044)	\$ (720,158)	\$ (669,804)	\$ (633,255)	\$ (592,687)	\$ (567,040)	\$ (547,699)	\$ (528,468)	\$ (512,379)	\$ (498,608)
Refunds	\$ (5,473)	\$ (5,051)	\$ (3,747)	\$ (4,196)	\$ (3,060)	\$ (3,181)	\$ (3,283)	\$ (1,902)	\$ (2,119)	\$ (2,391)
Pension Plan Administrative Expense	\$ (1,646)	\$ (1,747)	\$ (1,247)	\$ (1,634)	\$ (941)	\$ (924)	\$ (1,018)	\$ (886)	\$ (992)	\$ (906)
Other	\$ 664	\$ (616)	\$ (61)	\$ (20)	\$ 23	\$ 260	\$ 54	\$ 58	\$ 24	\$ 3
Net Change in Plan Fiduciary Net Position	\$ 1,013,048	\$ 1,026,304	\$ 623,435	\$ (982,608)	\$ 2,424,641	\$ 128,908	\$ 357,645	\$ 568,028	\$ 820,789	\$ (250,614)
Plan Fiduciary Net Position - Beginning	\$ 12,065,232	\$ 11,038,928	\$ 10,415,493	\$ 11,398,101	\$ 8,973,460	\$ 8,844,552	\$ 8,486,907	\$ 7,918,879	\$ 7,098,090	\$ 7,348,704
Plan Fiduciary Net Position - Ending (b)	\$ 13,078,280	\$ 12,065,232	\$ 11,038,928	\$ 10,415,493	\$ 11,398,101	\$ 8,973,460	\$ 8,844,552	\$ 8,486,907	\$ 7,918,879	\$ 7,098,090
Net Pension Liability - Ending (a) - (b)	\$ 1,171,664	\$ 1,315,609	\$ 1,726,870	\$ 4,351,605	\$ 771,894	\$ 1,318,107	\$ 1,064,601	\$ 1,065,897	\$ 1,350,119	\$ 4,013,174
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	91.78 %	90.17 %	86.47 %	70.53 %	93.66 %	87.19 %	89.26 %	88.84 %	85.43 %	63.88 %
Covered Employee Payroll	\$ 1,430,822	\$ 1,296,500	\$ 1,224,322	\$ 1,127,314	\$ 1,096,195	\$ 1,069,481	\$ 1,011,421	\$ 976,657	\$ 944,296	\$ 881,222
Net Pension Liability as a Percentage										
of Covered Employee Payroll	81.89 %	101.47 %	141.05 %	386.02 %	70.42 %	123.25 %	105.26 %	109.14 %	142.98 %	455.41 %
Notes to Schedule:										
N/A										

⁽¹⁾ For fiscal year ending June 30, 2024, includes \$19,397 in one-time state aid.

Schedules of Required Supplementary Information

Schedule of the Net Pension Liability Multiyear

(Dollars in Thousands)

Last 10 Fiscal Years

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2016	\$ 11,111,264	\$ 7,098,090	\$ 4,013,174	63.88%	\$ 881,222	455.41%
2017	\$ 9,268,998	\$ 7,918,879	\$ 1,350,119	85.43%	\$ 944,296	142.98%
2018	\$ 9,552,804	\$ 8,486,907	\$ 1,065,897	88.84%	\$ 976,657	109.14%
2019	\$ 9,909,153	\$ 8,844,552	\$ 1,064,601	89.26%	\$ 1,011,421	105.26%
2020	\$ 10,291,567	\$ 8,973,460	\$ 1,318,107	87.19%	\$ 1,069,481	123.25%
2021	\$ 12,169,995	\$ 11,398,101	\$ 771,894	93.66%	\$ 1,096,195	70.42%
2022	\$ 14,767,098	\$ 10,415,493	\$ 4,351,605	70.53%	\$ 1,127,314	386.02%
2023	\$ 12,765,798	\$ 11,038,928	\$ 1,726,870	86.47%	\$ 1,224,322	141.05%
2024	\$ 13,380,841	\$ 12,065,232	\$ 1,315,609	90.17%	\$ 1,296,500	101.47%
2025	\$ 14,249,944	\$ 13,078,280	\$ 1,171,664	91.78%	\$ 1,430,822	81.89%

Schedule of Contributions Multiyear (Dollars in Thousands)

Last 10 Fiscal Years

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2016	\$ 189,375	\$ 165,065	\$ 24,310	\$ 881,222	18.73%
2017	\$ 165,252	\$ 175,329	\$ (10,077)	\$ 944,296	18.57
2018	\$ 193,183	\$ 179,781	\$ 13,402	\$ 976,657	18.41
2019	\$ 173,459	\$ 188,317	\$ (14,858)	\$ 1,011,421	18.62
2020	\$ 177,855	\$ 207,319	\$ (29,464)	\$ 1,069,481	19.39
2021	\$ 174,405	\$ 219,129	\$ (44,724)	\$ 1,096,195	19.99
2022	\$ 153,766	\$ 224,416	\$ (70,650)	\$ 1,127,314	19.91
2023	\$ 161,733	\$ 241,305	\$ (79,572)	\$ 1,224,322	19.71
2024	\$ 260,208	\$ 273,613	\$ (13,405)	\$ 1,296,500	21.10
2025	\$ 281,872	\$ 277,631	\$ 4,241	\$ 1,430,822	19.40

Notes to Schedule of Contributions

Methods and Assumptions Used to Determine Contribution Rates for Fiscal Year Ending June 30, 2025:

Valuation Date	June 30, 2024
Notes	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.
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	3.00% to 11.75% 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.
Mortality	Pub-2010 Public Safety Mortality Tables projected with mortality improvement scale MP-2021, from a base year of 2010. Male retiree rates adjusted by a factor of 0.98.

Other Information:

Notes	The plan is assumed to pay a 1.00% post retirement benefit increase for all future years. See separate funding report as of June 30, 2024 for additional detail.
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Schedule of Investment Returns Multiyear

Last 10 Fiscal Years

FY Ending June 30,	Annual Return¹
2016	(0.1)%
2017	15.2
2018	10.5
2019	7.3
2020	4.2
2021	30.3
2022	(6.4)
2023	8.9
2024	12.3
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 PERA for GASB compliance purposes. PERA 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 Public Employees Police and Fire Plan 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 PERA's 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:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return (geometric)
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%
Unallocated Cash	0.0%	0.00%
Total	100%	

The Minnesota State Board of Investment (SBI) compiled this data and the related investment notes and provided it to PERA for GASB compliance purposes. PERA 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 reviews of inflation and investment return assumptions included in the General Employees Retirement Plan 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 plan member and employer contributions will be made at the current statutory 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 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

(Dollars in Thousands)

	Current Single Discount		
	1% Decrease	Rate Assumption	1% Increase
	6.00%	7.00%	8.00%
Total Pension Liability	\$ 16,148,288	\$ 14,249,944	\$ 12,691,104
Net Position Restricted for Pensions	\$ 13,078,280	\$ 13,078,280	\$ 13,078,280
Net Pension Liability	\$ 3,070,008	\$ 1,171,664	\$ (387,176)

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 the Actuarial Standards of Practice.

GASB Statement No. 68 Reconciliation (Dollars in Thousands)

Current Reporting Period

				Current Period		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Deferred Outflows	Deferred Inflows	Pension Expense*
Balance Beginning of Year	\$ 13,380,841	\$ 12,065,232	\$ 1,315,609			
Changes for the Year:						
Service Cost	\$ 308,601		\$ 308,601			\$ 308,601
Interest on Total Pension Liability	\$ 921,822		\$ 921,822			\$ 921,822
Interest on Fiduciary Net Position		\$ 834,520	\$ (834,520)			\$ (834,520)
Changes in Benefit Terms	\$ 187,132		\$ 187,132			\$ 187,132
Liability Experience Gains and Losses	\$ 205,896		\$ 205,896	\$ 171,580	\$ -	\$ 34,316
Changes in Assumptions	\$ (21,831)		\$ (21,831)	\$ -	\$ 18,192	\$ (3,639)
Contributions - Employer		\$ 277,631	\$ (277,631)			
Contributions - Employees		\$ 168,837	\$ (168,837)			\$ (168,837)
Asset Gain/(Loss)		\$ 465,559	\$ (465,559)	\$ -	\$ 372,447	\$ (93,112)
Benefit Payouts	\$ (732,517)	\$ (732,517)				
Administrative Expenses		\$ (1,646)	\$ 1,646			\$ 1,646
Other		\$ 664	\$ (664)			\$ (664)
Net Changes	\$ 869,103	\$ 1,013,048	\$ (143,945)	\$ 171,580	\$ 390,639	\$ 352,745
Balance End of Year	\$ 14,249,944	\$ 13,078,280	\$ 1,171,664			

* Pension Expense from Experience in the Current Reporting Period.

GASB Statement No. 68 Reconciliation (Dollars in Thousands)

Current and Prior Reporting Periods

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Deferred Outflows	Deferred Inflows	Net Deferred Outflows Prior Year	Total Pension Expense*
Balance Beginning of Year	\$ 13,380,841	\$ 12,065,232	\$ 1,315,609				
Changes for the Year:							
Service Cost	\$ 308,601		\$ 308,601				\$ 308,601
Interest on Total Pension Liability	\$ 921,822		\$ 921,822				\$ 921,822
Interest on Fiduciary Net Position		\$ 834,520	\$ (834,520)				\$ (834,520)
Changes in Benefit Terms	\$ 187,132		\$ 187,132				\$ 187,132
Liability Experience Gains and Losses	\$ 205,896		\$ 205,896	\$ 541,346	\$ -	\$ 512,703	\$ 177,253
Changes in Assumptions	\$ (21,831)		\$ (21,831)	\$ 888,497	\$ 1,468,046	\$ (491,074)	\$ 66,644
Contributions - Employer		\$ 277,631	\$ (277,631)				
Contributions - Employees		\$ 168,837	\$ (168,837)				\$ (168,837)
Asset Gain/(Loss)		\$ 465,559	\$ (465,559)	\$ 286,532	\$ 809,462	\$ (427,772)	\$ (370,401)
Benefit Payouts	\$ (732,517)	\$ (732,517)	\$ -				\$ -
Administrative Expenses		\$ (1,646)	\$ 1,646				\$ 1,646
Other		\$ 664	\$ (664)				\$ (664)
Net Changes	\$ 869,103	\$ 1,013,048	\$ (143,945)				\$ 288,676
Balance End of Year	\$ 14,249,944	\$ 13,078,280	\$ 1,171,664	\$ 1,716,375	\$ 2,277,508	\$ (406,143)	

* Pension Expense from Experience in the Current and Prior Reporting Period.

Summary of Population Statistics

	Actives	Terminated		Recipients			Total
		Deferred Retirement	Other Non-Vested	Service Retirement	Disability Retirement	Survivor	
Members on July 1, 2024	11,994	1,940	894	8,680	2,186	2,026	27,720
New members	895						895
Return to active	96	(50)	(45)	0	(1)	0	0
Terminated non-vested	(97)	0	97	0	0	0	0
Service retirements	(214)	(132)	0	346	0	0	0
Terminated deferred	(216)	216	0	0	0	0	0
Terminated refund/transfer	(46)	(42)	(98)	0	0	0	(186)
Deaths	(1)	(7)	(1)	(205)	(39)	(116)	(369)
New beneficiary	0	0	0	0	0	130	130
Disabled	(85)	0	0	0	85	0	0
Data adjustments	0	8	42	2	26	0	78
Net change	332	(7)	(5)	143	71	14	548
Members on June 30, 2025	12,326	1,933	889	8,823	2,257	2,040	28,268

SECTION E

SUMMARY OF BENEFITS

Summary of Plan Provisions – Police and Fire Plan

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	All full-time and certain part-time police officers and fire fighters, and certain paramedics, who are not contributing to any other local retirement fund.			
Contributions	<u>Effective as of</u>	<u>Member</u>	<u>Employer</u>	<u>Total</u>
	January 1, 2020 and later	11.80%	17.70%	29.50%
	Member contributions are “picked up” according to the provisions of Internal Revenue Code 414(h).			
State contributions	<p>\$9.0 million paid annually on October 1 until both PERA P&F and MSRS State Patrol achieve 100% funded status for three years (on an actuarial value of assets basis).</p> <p>In addition, \$17.7 million paid annually each October 1, beginning October 1, 2025 through June 30, 2048.</p> <p>In addition, \$9.0 million paid annually until the plan reaches 110% funding ratio for three years on an actuarial value of assets basis.</p>			
Allowable service	Police and Fire service during which member contributions were made. May also include certain leaves of absence and military service.			
Salary	Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes unused annual leaves and sick leave payments, severance payments, Workers’ Compensation benefits and employer-paid flexible spending accounts, cafeteria plans, healthcare expense accounts, day-care expenses, fringe benefits and the cost of insurance coverage.			
Average salary	Average of the five highest successive years of salary. Average Salary is based on all Allowable Service if less than five years.			
Vesting		<u>Vesting if First Hired</u>		
	<u>Years of Service</u>	<u>Before 7/1/2010</u>	<u>After 6/30/2010</u>	
	<3	0%	0%	
	3 – 4	100	0	
	5	100	50	
	6	100	60	
	7	100	70	
	8	100	80	
	9	100	90	
	10+	100	100	

Summary of Plan Provisions – Police and Fire Plan (Continued)

Retirement

Normal retirement benefit

Age/service requirement	Age 55 and at least partially vested. Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.
Amount	3.00% of Average Salary for each year of Allowable Service (up to 33 years if hired after June 30, 2014), pro-rata for completed months, adjusted for partial vesting if applicable. A pro-rata share of member contributions will be refunded at retirement for excess service.

Early Retirement

Age/service requirement	Age 50 and at least partially vested.
Amount	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement date and 0.10% (0.20% for members enrolled in the plan after June 30, 2007) reduction for each month the member is under age 55. If the effective date of retirement is after June 30, 2019, the reduction is 5/12% for each month that the member is under age 55 at the time of retirement.

Form of payment

Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are:

25%, 50%, 75% or 100% Joint and Survivor with bounce back feature. The Joint and Survivor options are determined on an actuarially equivalent basis, but with no actuarial reduction for the bounce back feature.

Benefit increases

Eligible benefit recipients receive a 3.00% increase on January 1, 2026; subsequent January 1 increases are 1.00%.

A benefit recipient who has been receiving a benefit for at least 24 full months as of June 30 will receive a full increase. Members receiving benefits for at least 13 months but less than 24 full months as of June 30 will receive a pro rata increase. For retirements after May 31, 2014 and prior to July 1, 2025, the first increase was delayed one additional year.

Members retired under laws in effect before July 1, 1973 receive an additional lump sum payment each year. In 1989, this lump sum payment is the greater of \$25 times each full year of Allowable Service or the difference between \$400 times each full year of Allowable Service and the sum of benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump sum payment will increase by the same percentage increase that is applied to regular annuities paid from the Fund. Effective January 1, 2002, annual lump sum payment is divided by 12 and paid as a monthly life annuity in the annuity form elected.

Summary of Plan Provisions – Police and Fire Plan (Continued)

Disability

Duty disability benefit

Age/service requirement	Physically or mentally unable to perform normal duties as a police officer or fire fighter as a direct result of an act of duty specific to protecting property and personal safety of others. Psychological treatment is required prior to approval for a duty disability benefit for a psychological condition relating to the member's occupation. Members age 55 or older with 20 or more years of Allowable Service are not eligible to apply for duty disability benefits.
Amount	<p>60.00%, plus an additional 3.00% for each year of service in excess of 20 years, of Average Salary paid until Normal Retirement Age, or for 60 months, whichever is later. The retirement benefit is then recalculated but is never lower than the disability benefit.</p> <p>If a member became disabled prior to July 1, 1997 but did not commence their benefit before July 1, 1997, the benefit is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in post-retirement interest rates from 5.00% to 6.00%.</p>

Regular disability benefit

Age/service requirement	Physically or mentally unable to perform normal duties as a police officer or fire fighter with one year of Allowable Service. Members age 55 or older with 15 or more years of Allowable Service are not eligible to apply for regular disability benefits.
Amount	<p>45.00% of Average Salary, paid until Normal Retirement Age, or for 60 months, whichever is later. The retirement benefit is then recalculated but is never lower than the disability benefit. Benefits for total and permanent regular disability are calculated as 3.00% of Average Salary for each year of Allowable Service, with a minimum of 45.00% of Average Salary.</p> <p>If a member became disabled prior to July 1, 1997 but did not commence his or her benefit before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in post-retirement interest rates from 5.00% to 6.00%.</p>

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 – Police and Fire Plan (Continued)

Disability (Concluded)

Retirement benefit

Age/service requirement	Upon cessation of disability benefits.
Amount	Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 55 or the normal retirement benefit available at age 55, or an actuarially equivalent optional annuity.
<u>Form of payment</u>	Same as for retirement.
<u>Benefit increases</u>	Same as for retirement.

Death

Surviving spouse benefit

Age/service requirement	Death of active member or regular disabled member with surviving spouse whose disability benefit accrued before July 1, 2007, who is vested at death (service requirement is waived if death occurs in the line of duty).
Amount	50.00% of salary (60.00% if death occurs in the line of duty after June 30, 2007) averaged over last six months. Benefit paid until spouse's death but no payments while spouse is remarried prior to July 1, 1991. If a member died prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.

Surviving dependent children's benefit

Age/service requirement	Non-duty related death of active member or regular disabled member with eligible dependent child.
Amount	10.00% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 50.00% of salary and maximum of 70.00% of salary. Benefits paid until child marries, dies, or attains age 18 (age 23 if full-time student).

Duty disability surviving spouse benefit

Age/service requirement	Member who is totally and permanently disabled who dies before age 55 or within five years of the effective date of the disability benefit, whichever is later.
Amount	60.00% of salary averaged over last six months. Benefits paid until spouse's death but no payments while spouse is remarried prior to July 1, 1991.

Summary of Plan Provisions – Police and Fire Plan (Continued)

Death (Concluded)

Duty disability surviving dependent children's benefit

Age/service requirement Death of a member with an eligible dependent child who was disabled in the line of duty and died as a direct result of the disability.

Amount 10.00% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 60.00% of salary and maximum of 80.00% of salary. Benefits paid until child marries, dies, or attains age 18 (age 23 if full-time student).

If a member died prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.

Surviving spouse optional annuity

Age/service requirement Active member dies before age 55. Benefits commence when member would have been age 55 or as early as age 50 if qualified for early retirement, benefits commence immediately if member had 30 years of service.

Amount Survivor's payment of the 100% joint and survivor benefit the member could have elected if terminated. Alternatively, spouse may elect refund of deceased's contributions with interest if there are no dependent children.

If a member died prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.

Benefit increases Same as for retirement.

Summary of Plan Provisions – Police and Fire Plan (Continued)

Termination

Refund of contributions

Age/service requirement Termination of public service.

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

Deferred benefit

Age/service requirement Partially or fully vested.

Amount Benefit computed under law in effect at termination and increased by the following percentage (augmentation) compounded annually for terminations prior to 2012:

- (a.) 0.00% before July 1, 1971;
- (b.) 5.00% from July 1, 1971 to January 1, 1981;
- (c.) 3.00% (2.50% if hired after June 30, 2006) thereafter until the earlier of January 1 of the year following attainment of age 55 and January 1, 2012;
- (d.) 5.00% (2.50% if hired after June 30, 2006) thereafter until the earlier of the date the annuity begins and January 1, 2012;
- (e.) 1.00% from January 1, 2012 through December 31, 2018; and
- (f.) 0.00% from January 1, 2019, thereafter.

Members who terminate after 2011 will receive no future augmentation.

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

Form of payment Same as for retirement.

Actuarial equivalent factors

Effective July 1, 2025, actuarially equivalent factors are based on the Pub-2010 Public Safety mortality rates for a member turning age 56 in 2027, reflecting projected mortality improvements using Scale MP-2021 from a base year of 2010, with male rates multiplied by a factor of 1.01, blended 90% males, and 6.50% interest.

Summary of Plan Provisions – Police and Fire Plan (Concluded)

Combined service annuity	<p>Members are eligible for combined service benefits if they:</p> <ul style="list-style-type: none">(a.) Meet minimum retirement age for each plan participated in and total public service meets the vesting requirements of each plan; or(b.) Have three or more years of service under PERA and the covered fund(s) (if hired prior to July 1, 2010). <p>Other requirements for combined service include:</p> <ul style="list-style-type: none">(a.) Member must have at least six months of allowable service credit in each plan worked under; and(b.) Member may not be in receipt of a benefit from another plan. <p>Members who meet the above requirements must have their benefits based on the following:</p> <ul style="list-style-type: none">(a.) Allowable service in all covered plans is 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 period of time needed for benefit recipients to receive their first benefit increase was reduced by one year (i.e., from 36 months to 24 months for a full increase).</p> <p>The January 1, 2026 benefit increase changed from 1.0% to 3.0%; subsequent January 1 benefit increases are 1.0%.</p> <p>The threshold to cease the \$9 million annual State contribution was changed from the earlier of July 1, 2048 or 90% funded for both PERA P&F and MSRS State Patrol for three consecutive years to 100% funded for both PERA P&F and MSRS State Patrol for three consecutive years (on an actuarial value of assets basis).</p> <p>The threshold to cease the additional \$9 million annual State contribution was changed from the earlier of July 1, 2048 or 100% funded for a minimum of three consecutive years to 110% funded for a minimum of three consecutive years (on an actuarial value of assets basis).</p> <p>An additional \$17.7 million in direct state aid is paid annually each October 1 beginning October 1, 2025 through June 30, 2048.</p> <p>Joint and Survivor actuarial equivalent factors were updated to reflect changes in assumptions.</p>
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Summary of Plan Provisions – Minneapolis Police Relief Association

Normal retirement benefit	Monthly benefits are equal to the number of units multiplied by the unit values described herein. Units are based on service, as follows:														
	<table> <tr> <th><u>Service</u></th><th><u>Units</u></th></tr> <tr> <td>20</td><td>35.0 units</td></tr> <tr> <td>21</td><td>36.6 units</td></tr> <tr> <td>22</td><td>38.2 units</td></tr> <tr> <td>23</td><td>39.8 units</td></tr> <tr> <td>24</td><td>41.4 units</td></tr> <tr> <td>25 or more</td><td>43.0 units</td></tr> </table>	<u>Service</u>	<u>Units</u>	20	35.0 units	21	36.6 units	22	38.2 units	23	39.8 units	24	41.4 units	25 or more	43.0 units
<u>Service</u>	<u>Units</u>														
20	35.0 units														
21	36.6 units														
22	38.2 units														
23	39.8 units														
24	41.4 units														
25 or more	43.0 units														
	Members must be at least age 50 with 5 years of service to receive this benefit.														
Unit values	<table> <tr> <th><u>Calendar Year</u></th><th><u>Unit Value</u></th></tr> <tr> <td>2012</td><td>\$ 104.651</td></tr> <tr> <td>2013</td><td>109.011</td></tr> <tr> <td>2014</td><td>114.825</td></tr> <tr> <td>2015</td><td>124.031</td></tr> </table> <p>Unit values after 2015 are assumed to increase the same percentage as the post-retirement benefit increase.</p>	<u>Calendar Year</u>	<u>Unit Value</u>	2012	\$ 104.651	2013	109.011	2014	114.825	2015	124.031				
<u>Calendar Year</u>	<u>Unit Value</u>														
2012	\$ 104.651														
2013	109.011														
2014	114.825														
2015	124.031														
Surviving spouse's benefit	Annual benefit based on 23 units for the surviving spouse of an active or retired member. Upon retirement, members may choose an alternative form of payment that provides 50%, 75%, or 100% of their benefit to their spouse after their death. The units are adjusted if one of these alternate forms is selected.														
Surviving children's benefit	Annual benefit based on 8 units for each surviving child of an active or retired member. Benefits continue to age 18 or if the child is a full-time student, to age 22. The total benefit for surviving children and spouse combined is limited to 41 units.														
Contributions	<p>Member and employer contributions equal to 8.00% of the monthly unit value multiplied by 80 are required for each member. After 25 years of service, member contributions are paid to a separate health insurance account.</p> <p>Until July 15, 2018, the employer contributed annually an amount to amortize the unfunded liability by December 31, 2031. Beginning July 15, 2019, the employer will contribute \$4,489,837 each July 15 through 2031.</p>														
Benefit increases	Benefit recipients receive a 3.00% increase on January 1, 2026; subsequent January 1 increases are 1.00%.														

Summary of Plan Provisions – Minneapolis Firefighters’ Relief Association

Normal retirement benefit	Monthly benefits are equal to the number of units multiplied by the unit values described herein. Units are based on service, as follows:
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<u>Service</u>	<u>Units</u>
15	25.0 units
16	26.6 units
17	28.2 units
18	29.8 units
19	31.4 units
20	35.0 units
21	36.6 units
22	38.2 units
23	39.8 units
24	41.4 units
25 or more	43.0 units

Members must be at least age 50 with 5 years of service to receive this benefit.

Members may choose among alternative survivor payment forms which modify the number of units payable to the member and their spouse. A member who is single at the time of retirement and who has at least 25 years of service may choose to receive 43.3 units on the condition of a reduced survivor payment to any future spouse.

<u>Unit values</u>	<u>Calendar Year</u>	<u>Unit Value</u>
	2013	\$100.775
	2014	104.264
	2015	124.031

Unit values after 2015 are assumed to increase the same percentage as the post-retirement benefit increase.

Disability benefit	Annual benefit based on 41 units for the disabled member.
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Surviving spouse’s benefit	Annual benefit based on 23 units for the surviving spouse of an active or retired member and 22 units for the surviving spouse of a disabled member. Upon retirement, members may choose an alternative form of payment that provides 50%, 75% or 100% of their benefit to their spouse after their death. The units are adjusted if one of these alternate forms is selected.
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Surviving children’s benefit	Annual benefit based on 8 units for each surviving child of an active or retired member. Benefits continue to age 18 or if the child is a full-time student, to age 22. The total benefit for surviving children and spouse combined is limited to 43 units.
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Contributions	Member and employer contributions equal to 8.00% of the monthly unit value multiplied by 80 are required for each member. After 25 years of service, member contributions are paid to a separate health insurance account.
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Until July 15, 2018, the employer contributed annually an amount to amortize the unfunded liability by December 31, 2031. Beginning July 15, 2019, the employer will contribute \$3,188,735 each July 15 through 2031.

Benefit increases	Benefit recipients receive a 3.00% increase on January 1, 2026; subsequent January 1 increases are 1.00%.
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SECTION F

**ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS
USED FOR THE DETERMINATION OF TOTAL PENSION LIABILITY
AND RELATED VALUES**

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

The following assumptions were used in valuing the liabilities and benefits under the plan. Unless noted otherwise, the assumptions prescribed are based on the experience study dated July 31, 2024, and a review of inflation and investment assumptions in the General Employees Retirement Plan Experience Study 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 State	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 earned during the year.
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 projection scale MP-2021.
Healthy post-retirement	Pub-2010 Public Safety Healthy Retiree Mortality Table adjusted for mortality improvements using projection scale MP-2021. Male rates are multiplied by a factor of 1.01.
Disabled	Pub-2010 Public Safety Disabled Retiree Mortality Table, adjusted for mortality improvements using projection scale MP-2021. Male rates are multiplied by a factor of 1.17.
Notes	Pre-retirement deaths are assumed to be duty related. 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 and beneficiaries 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 ultimately result in behavior changes that are not anticipated in the current retirement rates.
Withdrawal	Service-related rates based on actual experience; see table of sample rates.

Summary of Actuarial Assumptions (Continued)

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.																
Allowance for combined service annuity	Liabilities for former members are increased by 13.0% for vested members and 38.0% for non-vested members to account for the effect of some participants having eligibility for a Combined Service Annuity.																
Administrative expenses	In the valuation year, prior year administrative expenses expressed as a 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 male and 65% of female active members are assumed to be married. Actual marital status is used for members in payment status.																
Age of spouse	Males are assumed to be two years older than females. For members in payment status, actual spouse date of birth is used, if provided.																
Eligible children	Retiring members are assumed to have no dependent children.																
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> <table> <tr> <td>Males:</td><td>7.5% elect 25% Joint & Survivor option</td></tr> <tr> <td></td><td>15.0% elect 50% Joint & Survivor option</td></tr> <tr> <td></td><td>15.0% elect 75% Joint & Survivor option</td></tr> <tr> <td></td><td>55.0% elect 100% Joint & Survivor option</td></tr> <tr> <td>Females:</td><td>15.0% elect 25% Joint & Survivor option</td></tr> <tr> <td></td><td>20.0% elect 50% Joint & Survivor option</td></tr> <tr> <td></td><td>10.0% elect 75% Joint & Survivor option</td></tr> <tr> <td></td><td>25.0% elect 100% Joint & Survivor option</td></tr> </table> <p>Remaining married members and unmarried members are assumed to elect the Straight Life option.</p> <p>Disabled members younger than Normal Retirement Age who are reported with a life annuity are assumed to instead have the 100% Joint & Survivor option to account for survivor benefits payable prior to Normal Retirement Age.</p> <p>Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a straight life annuity.</p>	Males:	7.5% elect 25% Joint & Survivor option		15.0% elect 50% Joint & Survivor option		15.0% elect 75% Joint & Survivor option		55.0% elect 100% Joint & Survivor option	Females:	15.0% elect 25% Joint & Survivor option		20.0% elect 50% Joint & Survivor option		10.0% elect 75% Joint & Survivor option		25.0% elect 100% Joint & Survivor option
Males:	7.5% elect 25% Joint & Survivor option																
	15.0% elect 50% Joint & Survivor option																
	15.0% elect 75% Joint & Survivor option																
	55.0% elect 100% Joint & Survivor option																
Females:	15.0% elect 25% Joint & Survivor option																
	20.0% elect 50% Joint & Survivor option																
	10.0% elect 75% Joint & Survivor option																
	25.0% elect 100% Joint & Survivor option																
Eligibility testing	Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.																
Decrement operation	Withdrawal decrements do not operate during retirement eligibility. Decrement are assumed to occur mid-fiscal year.																

Summary of Actuarial Assumptions (Continued)

Service credit accruals	It is assumed that members accrue one year of service credit per year.
Benefit service	Exact fractional service is 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.
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, based on average results for applicable members at the time of the last experience study, were applied:

Data for active members:

There were 63 members reported with a salary less than \$100 after annualization. We used prior year salary (48 members), if available; otherwise high five salary with a 10% load to account for salary increases (13 members). If neither prior year salary nor high five salary was available, we assumed a value of \$80,900 (2 members).

There were also 378 members reported without a gender. We assumed male gender. There were 5 members reported with missing or invalid date of birth. We assumed these members were hired at age 29.

Data for terminated members:

We calculated benefits for these members using the reported Average Salary and credited service. If credited service was not reported (14 members), we used elapsed time from hire date to termination date (5 members); if elapsed time was not available, we assumed nine years of service. If termination date was invalid or not reported (8 members), we assumed the termination date was equal to the hire date plus credited service, otherwise the valuation date. If the reported termination date occurs prior to the reported hire date, the two dates were swapped.

There were 53 members reported without a gender; male was assumed.

There were 20 members reported without a missing or invalid date of birth. We assumed these members are age 45.

Summary of Actuarial Assumptions (Continued)

Unknown data for certain members (Concluded)**Data for retired members:**

There were no members with missing or invalid dates of birth. There were no members reported with a \$0 benefit amount. There were 31 members reported without a gender. We assumed retirees are male and beneficiaries are female.

Because PERA reclassifies disabled members as retirees once the member reaches Normal Retirement Age, we compare the members that PERA reports as retirees to our disabled group from the last valuation. If a member was disabled in the prior valuation, we reclassify that member as a disabled retiree in this year's valuation. We reclassified 475 retirees as disabled retirees in this valuation.

Changes in actuarial assumptions since the prior valuation

The following changes in assumptions are effective with the July 1, 2025 valuation, as recommended in the most recent experience study (dated July 31, 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 an overall increase in reduced (Early) retirements.
- Assumed rates of withdrawal were modified; the new rates result in an increase in predicted terminations for males and females, especially in the first few years of employment.
- Assumed rates of disabled retirement were significantly increased, especially for ages over age 30.
- Continued use of Pub-2010 Public Safety mortality table with rates adjusted to better fit observed experience.
- Lower percent married assumption for female retirees from 70% to 65%.
- 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 33% to 13% for vested terminated members, and from 2% to 38% 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**	
	Males	Females	Males	Females	Males	Females
20	0.04%	0.02%	0.04%	0.02%	0.15%	0.06%
25	0.04	0.02	0.04	0.02	0.15	0.08
30	0.06	0.04	0.06	0.04	0.20	0.12
35	0.07	0.05	0.07	0.05	0.25	0.17
40	0.09	0.06	0.08	0.06	0.28	0.20
45	0.14	0.09	0.09	0.07	0.31	0.22
50	0.18	0.13	0.11	0.08	0.39	0.27
55	0.29	0.25	0.16	0.12	0.53	0.44
60	0.52	0.45	0.27	0.17	0.86	0.71
65	0.88	0.72	0.41	0.21	1.38	1.00
70	1.45	1.15	0.70	0.39	2.04	1.39
75	2.49	1.97	1.25	0.77	3.30	2.09
80	4.51	3.53	2.34	1.60	5.73	3.53
85	8.30	6.32	7.36	5.54	9.70	6.32
90	14.79	11.14	14.64	11.14	17.13	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 improvement using Scale MP-2021, from a base year of 2010.

Age	Rates of Disability	
	Retirement	
	Males	Females
20	0.11%	0.11%
25	0.18	0.18
30	0.51	0.51
35	0.90	0.90
40	1.35	1.35
45	1.55	1.55
50	1.97	1.97
55*	2.19	2.19
60*	2.56	2.56

* Disability retirements are assumed to continue until the earlier of age 55 with 20 years of service or age 70.

Summary of Actuarial Assumptions (Concluded)

Rates of Service		Withdrawal		Salary Scale	
Age	Retirement	Year	Rates	Year	Increase
50	5.00%	1	8.00%	1	10.75%
51	4.00	2	5.00	2	8.00%
52	5.00	3	3.25	3	7.25%
53	9.00	4	2.75	4	6.50%
54	15.00	5	2.75	5	5.25%
55	40.00	6	2.75	6	4.75%
56	25.00	7	2.50	7	4.25%
57	25.00	8	2.25	8	4.00%
58	25.00	9	2.25	9	3.90%
59	25.00	10	2.25	10	3.80%
60	25.00	11	2.25	11	3.60%
61	25.00	12	2.00	12	3.40%
62	30.00	13	2.00	13	3.30%
63	30.00	14	1.75	14	3.30%
64	32.50	15	1.50	15	3.30%
65	40.00	16	1.50	16	3.30%
66	45.00	17	1.50	17	3.20%
67	45.00	18	1.50	18	3.20%
68	45.00	19	1.50	19	3.20%
69	45.00	20	1.50	20	3.20%
70+	100.00	21+	1.25	21	3.10%
				22	3.10%
				23	3.10%
				24	3.00%
				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 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 assumed long-term rate of return is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond 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 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%.**

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	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*	Contributions due from Mergers	Additional State Contributions**	Total Contributions
2025	\$ 1,430,822	\$ 0	\$ 1,430,822						
2026	1,389,466	27,350	1,416,816	\$ 163,957	\$ 245,935	\$ 749	\$ 7,679	\$ 35,700	\$ 454,020
2027	1,352,692	106,628	1,459,320	159,618	239,426	2,920	7,679	35,700	445,343
2028	1,314,059	189,041	1,503,100	155,059	232,589	5,176	7,679	35,700	436,203
2029	1,274,529	273,664	1,548,193	150,394	225,592	7,494	7,679	35,700	426,859
2030	1,233,575	361,063	1,594,638	145,562	218,343	9,886	7,679	35,700	417,170
2031	1,191,103	451,375	1,642,478	140,550	210,825	12,360	7,679	35,700	407,114
2032	1,147,958	543,794	1,691,752	135,459	203,188	14,891	7,679	35,700	396,917
2033	1,103,996	638,508	1,742,504	130,272	195,407	17,484	0	35,700	378,863
2034	1,059,363	735,417	1,794,780	125,005	187,507	20,138	0	35,700	368,350
2035	1,013,844	834,779	1,848,623	119,634	179,450	22,859	0	35,700	357,643
2036	967,367	936,715	1,904,082	114,149	171,224	25,650	0	35,700	346,723
2037	919,787	1,041,417	1,961,204	108,535	162,802	28,517	0	35,700	335,554
2038	871,471	1,148,569	2,020,040	102,834	154,250	31,451	0	35,700	324,235
2039	823,068	1,257,573	2,080,641	97,122	145,683	34,436	0	35,700	312,941
2040	774,619	1,368,442	2,143,061	91,405	137,108	37,471	0	35,700	301,684
2041	726,748	1,480,604	2,207,352	85,756	128,634	40,544	0	35,700	290,634
2042	679,807	1,593,766	2,273,573	80,217	120,326	43,642	0	35,700	279,885
2043	633,583	1,708,197	2,341,780	74,763	112,144	46,775	0	35,700	269,382
2044	587,911	1,824,123	2,412,034	69,374	104,060	49,949	0	35,700	259,083
2045	542,519	1,941,876	2,484,395	64,017	96,026	53,174	0	35,700	248,917
2046	497,213	2,061,713	2,558,926	58,671	88,007	56,455	0	35,700	238,833
2047	451,638	2,184,056	2,635,694	53,293	79,940	59,806	0	35,700	228,739
2048	406,249	2,308,516	2,714,765	47,937	71,906	63,214	0	35,700	218,757
2049	362,039	2,434,169	2,796,208	42,721	64,081	66,654	0	18,000	191,456
2050	319,648	2,560,446	2,880,094	37,718	56,578	70,112	0	18,000	182,408
2051	278,854	2,687,643	2,966,497	32,905	49,357	73,595	0	18,000	173,857
2052	239,338	2,816,154	3,055,492	28,242	42,363	77,114	0	18,000	165,719
2053	201,698	2,945,459	3,147,157	23,800	35,701	80,655	0	18,000	158,156
2054	166,719	3,074,853	3,241,572	19,673	29,509	84,198	0	9,000	142,380
2055	135,067	3,203,752	3,338,819	15,938	23,907	87,727	0	9,000	136,572
2056	106,889	3,332,094	3,438,983	12,613	18,919	91,242	0	9,000	131,774
2057	82,416	3,459,737	3,542,153	9,725	14,588	94,737	0	9,000	128,050
2058	62,143	3,586,274	3,648,417	7,333	10,999	98,202	0	9,000	125,534
2059	46,062	3,711,808	3,757,870	5,435	8,153	101,640	0	9,000	124,228
2060	33,917	3,836,689	3,870,606	4,002	6,003	105,060	0	9,000	124,065
2061	24,975	3,961,749	3,986,724	2,947	4,421	108,483	0	9,000	124,851
2062	18,231	4,088,095	4,106,326	2,151	3,227	111,944	0	9,000	126,322
2063	13,094	4,216,422	4,229,516	1,545	2,318	115,457	0	9,000	128,320
2064	9,209	4,347,192	4,356,401	1,087	1,630	119,038	0	9,000	130,755
2065	6,313	4,480,780	4,487,093	745	1,117	122,697	0	9,000	133,559
2066	4,192	4,617,514	4,621,706	495	742	126,440	0	9,000	136,677
2067	2,676	4,757,681	4,760,357	316	474	130,278	0	9,000	140,068
2068	1,631	4,901,537	4,903,168	192	289	134,218	0	9,000	143,699
2069	942	5,049,321	5,050,263	111	167	138,264	0	9,000	147,542
2070	512	5,201,259	5,201,771	60	91	142,425	0	9,000	151,576
2071	261	5,357,563	5,357,824	31	46	146,705	0	9,000	155,782
2072	121	5,518,438	5,518,559	14	21	151,111	0	9,000	160,146
2073	49	5,684,066	5,684,115	6	9	155,645	0	9,000	164,660
2074	15	5,854,624	5,854,639	2	3	160,315	0	9,000	169,320
2075	2	6,030,276	6,030,278	0	-	165,126	0	9,000	174,126

* Equal to contributions (29.50% of payroll for new employees) net of normal cost and expenses (26.76% of payroll).

** State contributions equal to \$9.0 million are assumed to end after 28 years. Additional State contributions of \$9.0 million until 110% funded for three consecutive years are assumed to continue indefinitely. Actual end dates will depend on the funding status of this plan and the MSRS State Patrol Plan.



Single Discount Rate Development Projection of Contributions (Concluded) (Dollars in Thousands)

Fiscal Year Ending	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*	Contributions due from Mergers	Additional State Contributions**	Total Contributions
2076	\$ 0	\$ 6,211,186	\$ 6,211,186	\$ 0	\$ 0	\$ 170,080	\$ 0	\$ 9,000	\$ 179,080
2077	0	6,397,522	6,397,522	0	0	175,182	0	9,000	184,182
2078	0	6,589,447	6,589,447	0	0	180,437	0	9,000	189,437
2079	0	6,787,131	6,787,131	0	0	185,850	0	9,000	194,850
2080	0	6,990,745	6,990,745	0	0	191,426	0	9,000	200,426
2081	0	7,200,467	7,200,467	0	0	197,169	0	9,000	206,169
2082	0	7,416,481	7,416,481	0	0	203,084	0	9,000	212,084
2083	0	7,638,976	7,638,976	0	0	209,176	0	9,000	218,176
2084	0	7,868,145	7,868,145	0	0	215,452	0	9,000	224,452
2085	0	8,104,189	8,104,189	0	0	221,915	0	9,000	230,915
2086	0	8,347,315	8,347,315	0	0	228,573	0	9,000	237,573
2087	0	8,597,734	8,597,734	0	0	235,430	0	9,000	244,430
2088	0	8,855,666	8,855,666	0	0	242,493	0	9,000	251,493
2089	0	9,121,336	9,121,336	0	0	249,767	0	9,000	258,767
2090	0	9,394,977	9,394,977	0	0	257,260	0	9,000	266,260
2091	0	9,676,826	9,676,826	0	0	264,978	0	9,000	273,978
2092	0	9,967,131	9,967,131	0	0	272,928	0	9,000	281,928
2093	0	10,266,144	10,266,144	0	0	281,115	0	9,000	290,115
2094	0	10,574,129	10,574,129	0	0	289,549	0	9,000	298,549
2095	0	10,891,353	10,891,353	0	0	298,235	0	9,000	307,235
2096	0	11,218,093	11,218,093	0	0	307,182	0	9,000	316,182
2097	0	11,554,636	11,554,636	0	0	316,398	0	9,000	325,398
2098	0	11,901,275	11,901,275	0	0	325,890	0	9,000	334,890
2099	0	12,258,313	12,258,313	0	0	335,667	0	9,000	344,667
2100	0	12,626,063	12,626,063	0	0	345,737	0	9,000	354,737
2101	0	13,004,845	13,004,845	0	0	356,109	0	9,000	365,109
2102	0	13,394,990	13,394,990	0	0	366,792	0	9,000	375,792
2103	0	13,796,840	13,796,840	0	0	377,796	0	9,000	386,796
2104	0	14,210,745	14,210,745	0	0	389,130	0	9,000	398,130
2105	0	14,637,067	14,637,067	0	0	400,803	0	9,000	409,803
2106	0	15,076,179	15,076,179	0	0	412,828	0	9,000	421,828
2107	0	15,528,465	15,528,465	0	0	425,212	0	9,000	434,212
2108	0	15,994,319	15,994,319	0	0	437,969	0	9,000	446,969
2109	0	16,474,148	16,474,148	0	0	451,108	0	9,000	460,108
2110	0	16,968,373	16,968,373	0	0	464,641	0	9,000	473,641
2111	0	17,477,424	17,477,424	0	0	478,580	0	9,000	487,580
2112	0	18,001,747	18,001,747	0	0	492,938	0	9,000	501,938
2113	0	18,541,799	18,541,799	0	0	507,726	0	9,000	516,726
2114	0	19,098,053	19,098,053	0	0	522,958	0	9,000	531,958
2115	0	19,670,994	19,670,994	0	0	538,646	0	9,000	547,646
2116	0	20,261,124	20,261,124	0	0	554,806	0	9,000	563,806
2117	0	20,868,958	20,868,958	0	0	571,450	0	9,000	580,450
2118	0	21,495,027	21,495,027	0	0	588,593	0	9,000	597,593
2119	0	22,139,878	22,139,878	0	0	606,251	0	9,000	615,251
2120	0	22,804,074	22,804,074	0	0	624,439	0	9,000	633,439
2121	0	23,488,196	23,488,196	0	0	643,172	0	9,000	652,172
2122	0	24,192,842	24,192,842	0	0	662,467	0	9,000	671,467
2123	0	24,918,627	24,918,627	0	0	682,341	0	9,000	691,341
2124	0	25,666,186	25,666,186	0	0	702,811	0	9,000	711,811
2125	0	26,436,172	26,436,172	0	0	723,896	0	9,000	732,896

* Equal to contributions (29.50% of payroll for new employees) net of normal cost and expenses (26.76% of payroll).

** State contributions equal to \$9.0 million are assumed to end after 28 years. Additional State contributions of \$9.0 million until 110% funded for three consecutive years are assumed to continue indefinitely. Actual end dates will depend on the funding status of this plan and the MSRS State Patrol Plan.



Single Discount Rate Development

Projection of Plan Fiduciary Net Position

(Dollars in Thousands)

Fiscal Year Ending	Projected Beginning Plan 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	\$ 13,078,280	\$ 454,020	\$ 781,177	\$ 1,806	\$ 904,161	\$ 13,653,478
2027	13,653,478	445,343	826,529	1,759	942,567	14,213,100
2028	14,213,100	436,203	866,342	1,708	980,058	14,761,311
2029	14,761,311	426,859	903,792	1,657	1,016,824	15,299,545
2030	15,299,545	417,170	941,767	1,604	1,052,863	15,826,208
2031	15,826,208	407,114	980,363	1,548	1,088,057	16,339,468
2032	16,339,468	396,917	1,018,223	1,492	1,122,334	16,839,004
2033	16,839,004	378,863	1,055,819	1,435	1,155,388	17,316,000
2034	17,316,000	368,350	1,093,663	1,377	1,187,116	17,776,425
2035	17,776,425	357,643	1,131,289	1,318	1,217,685	18,219,146
2036	18,219,146	346,723	1,169,958	1,258	1,246,971	18,641,625
2037	18,641,625	335,554	1,208,780	1,196	1,274,827	19,042,029
2038	19,042,029	324,235	1,247,540	1,133	1,301,134	19,418,726
2039	19,418,726	312,941	1,286,106	1,070	1,325,789	19,770,280
2040	19,770,280	301,684	1,324,666	1,007	1,348,686	20,094,977
2041	20,094,977	290,634	1,362,049	945	1,369,751	20,392,368
2042	20,392,368	279,885	1,398,102	884	1,388,960	20,662,227
2043	20,662,227	269,382	1,433,283	824	1,406,280	20,903,782
2044	20,903,782	259,083	1,467,343	764	1,421,665	21,116,422
2045	21,116,422	248,917	1,501,283	705	1,435,034	21,298,385
2046	21,298,385	238,833	1,534,847	646	1,446,271	21,447,996
2047	21,447,996	228,739	1,568,520	587	1,455,240	21,562,868
2048	21,562,868	218,757	1,601,887	528	1,461,792	21,641,002
2049	21,641,002	191,456	1,633,803	471	1,465,226	21,663,410
2050	21,663,410	182,408	1,663,233	416	1,465,472	21,647,641
2051	21,647,641	173,857	1,690,608	363	1,463,134	21,593,662
2052	21,593,662	165,719	1,716,401	311	1,458,190	21,500,858
2053	21,500,858	158,156	1,739,838	262	1,450,628	21,369,542
2054	21,369,542	142,380	1,759,743	217	1,440,210	21,192,172
2055	21,192,172	136,572	1,775,159	176	1,427,065	20,980,475
2056	20,980,475	131,774	1,785,984	139	1,411,710	20,737,837
2057	20,737,837	128,050	1,791,779	107	1,394,399	20,468,400
2058	20,468,400	125,534	1,791,567	81	1,375,460	20,177,746
2059	20,177,746	124,228	1,785,185	60	1,355,290	19,872,019
2060	19,872,019	124,065	1,772,613	44	1,334,316	19,557,743
2061	19,557,743	124,851	1,754,683	32	1,312,962	19,240,841
2062	19,240,841	126,322	1,732,808	24	1,291,582	18,925,912
2063	18,925,912	128,320	1,707,678	17	1,270,471	18,617,007
2064	18,617,007	130,755	1,679,641	12	1,249,896	18,318,005
2065	18,318,005	133,559	1,648,972	8	1,230,118	18,032,701
2066	18,032,701	136,677	1,615,912	5	1,211,391	17,764,852
2067	17,764,852	140,068	1,580,667	3	1,193,971	17,518,220
2068	17,518,220	143,699	1,543,408	2	1,178,114	17,296,623
2069	17,296,623	147,542	1,504,294	1	1,164,080	17,103,951
2070	17,103,951	151,576	1,463,464	1	1,152,137	16,944,199
2071	16,944,199	155,782	1,421,048	0	1,142,559	16,821,492
2072	16,821,492	160,146	1,377,161	0	1,135,629	16,740,106
2073	16,740,106	164,660	1,331,899	0	1,131,645	16,704,511
2074	16,704,511	169,320	1,285,350	0	1,130,915	16,719,397
2075	16,719,397	174,126	1,237,593	0	1,133,766	16,789,696

For purposes of this projection, we assumed the 29.50% 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 (Concluded)

(Dollars in Thousands)

Fiscal Year Ending	Projected Beginning Plan 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	\$ 16,789,696	\$ 179,080	\$ 1,188,719	\$ 0	\$ 1,140,539	\$ 16,920,596
2077	16,920,596	184,182	1,138,824	0	1,151,594	17,117,549
2078	17,117,549	189,437	1,088,012	0	1,167,310	17,386,284
2079	17,386,284	194,850	1,036,397	0	1,188,084	17,732,821
2080	17,732,821	200,426	984,102	0	1,214,333	18,163,478
2081	18,163,478	206,169	931,260	0	1,246,494	18,684,880
2082	18,684,880	212,084	878,014	0	1,285,028	19,303,979
2083	19,303,979	218,176	824,517	0	1,330,416	20,028,054
2084	20,028,054	224,452	770,938	0	1,383,160	20,864,728
2085	20,864,728	230,915	717,462	0	1,443,790	21,821,971
2086	21,821,971	237,573	664,298	0	1,512,855	22,908,101
2087	22,908,101	244,430	611,670	0	1,590,931	24,131,792
2088	24,131,792	251,493	559,826	0	1,678,616	25,502,075
2089	25,502,075	258,767	509,029	0	1,776,534	27,028,348
2090	27,028,348	266,260	459,560	0	1,885,333	28,720,382
2091	28,720,382	273,978	411,706	0	2,005,688	30,588,342
2092	30,588,342	281,928	365,764	0	2,138,299	32,642,805
2093	32,642,805	290,115	322,024	0	2,283,898	34,894,795
2094	34,894,795	298,549	280,768	0	2,443,247	37,355,823
2095	37,355,823	307,235	242,255	0	2,617,143	40,037,947
2096	40,037,947	316,182	206,705	0	2,806,423	42,953,848
2097	42,953,848	325,398	174,285	0	3,011,969	46,116,929
2098	46,116,929	334,890	145,103	0	3,234,715	49,541,432
2099	49,541,432	344,667	119,196	0	3,475,658	53,242,561
2100	53,242,561	354,737	96,532	0	3,735,864	57,236,629
2101	57,236,629	365,109	77,011	0	4,016,477	61,541,204
2102	61,541,204	375,792	60,468	0	4,318,734	66,175,263
2103	66,175,263	386,796	46,688	0	4,643,971	71,159,341
2104	71,159,341	398,130	35,416	0	4,993,634	76,515,689
2105	76,515,689	409,803	26,372	0	5,369,291	82,268,411
2106	82,268,411	421,828	19,263	0	5,772,640	88,443,616
2107	88,443,616	434,212	13,793	0	6,205,519	95,069,554
2108	95,069,554	446,969	9,678	0	6,669,915	102,176,760
2109	102,176,760	460,108	6,654	0	7,167,976	109,798,189
2110	109,798,189	473,641	4,484	0	7,702,016	117,969,362
2111	117,969,362	487,580	2,965	0	8,274,530	126,728,507
2112	126,728,507	501,938	1,927	0	8,888,200	136,116,717
2113	136,116,717	516,726	1,235	0	9,545,907	146,178,116
2114	146,178,116	531,958	783	0	10,250,745	156,960,035
2115	156,960,035	547,646	495	0	11,006,029	168,513,215
2116	168,513,215	563,806	314	0	11,815,314	180,892,020
2117	180,892,020	580,450	201	0	12,682,407	194,154,675
2118	194,154,675	597,593	131	0	13,611,385	208,363,522
2119	208,363,522	615,251	87	0	14,606,613	223,585,299
2120	223,585,299	633,439	59	0	15,672,764	239,891,442
2121	239,891,442	652,172	40	0	16,814,840	257,358,413
2122	257,358,413	671,467	28	0	18,038,192	276,068,044
2123	276,068,044	691,341	19	0	19,348,550	296,107,917
2124	296,107,917	711,811	13	0	20,752,046	317,571,761
2125	317,571,761	732,896	20	0	22,255,240	340,559,877

For purposes of this projection, we assumed the 29.50% 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 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)-2025.5)	(g)=(e)*vf ^a ((a)-2025.5)	(h)=(c)/(1+sdr) ^a ((a)-2025.5)
2026	\$ 13,078,280	\$ 781,177	\$ 781,177	\$ 0	\$ 755,192	\$ 0	\$ 755,192
2027	13,653,478	826,529	826,529	0	746,763	0	746,763
2028	14,213,100	866,342	866,342	0	731,526	0	731,526
2029	14,761,311	903,792	903,792	0	713,223	0	713,223
2030	15,299,545	941,767	941,767	0	694,571	0	694,571
2031	15,826,208	980,363	980,363	0	675,734	0	675,734
2032	16,339,468	1,018,223	1,018,223	0	655,916	0	655,916
2033	16,839,004	1,055,819	1,055,819	0	635,640	0	635,640
2034	17,316,000	1,093,663	1,093,663	0	615,349	0	615,349
2035	17,776,425	1,131,289	1,131,289	0	594,878	0	594,878
2036	18,219,146	1,169,958	1,169,958	0	574,964	0	574,964
2037	18,641,625	1,208,780	1,208,780	0	555,180	0	555,180
2038	19,042,029	1,247,540	1,247,540	0	535,497	0	535,497
2039	19,418,726	1,286,106	1,286,106	0	515,936	0	515,936
2040	19,770,280	1,324,666	1,324,666	0	496,640	0	496,640
2041	20,094,977	1,362,049	1,362,049	0	477,248	0	477,248
2042	20,392,368	1,398,102	1,398,102	0	457,832	0	457,832
2043	20,662,227	1,433,283	1,433,283	0	438,648	0	438,648
2044	20,903,782	1,467,343	1,467,343	0	419,693	0	419,693
2045	21,116,422	1,501,283	1,501,283	0	401,309	0	401,309
2046	21,298,385	1,534,847	1,534,847	0	383,440	0	383,440
2047	21,447,996	1,568,520	1,568,520	0	366,217	0	366,217
2048	21,562,868	1,601,887	1,601,887	0	349,540	0	349,540
2049	21,641,002	1,633,803	1,633,803	0	333,181	0	333,181
2050	21,663,410	1,663,233	1,663,233	0	316,994	0	316,994
2051	21,647,641	1,690,608	1,690,608	0	301,132	0	301,132
2052	21,593,662	1,716,401	1,716,401	0	285,725	0	285,725
2053	21,500,858	1,739,838	1,739,838	0	270,679	0	270,679
2054	21,369,542	1,759,743	1,759,743	0	255,865	0	255,865
2055	21,192,172	1,775,159	1,775,159	0	241,221	0	241,221
2056	20,980,475	1,785,984	1,785,984	0	226,815	0	226,815
2057	20,737,837	1,791,779	1,791,779	0	212,665	0	212,665
2058	20,468,400	1,791,567	1,791,567	0	198,729	0	198,729
2059	20,177,746	1,785,185	1,785,185	0	185,066	0	185,066
2060	19,872,019	1,772,613	1,772,613	0	171,741	0	171,741
2061	19,557,743	1,754,683	1,754,683	0	158,882	0	158,882
2062	19,240,841	1,732,808	1,732,808	0	146,637	0	146,637
2063	18,925,912	1,707,678	1,707,678	0	135,056	0	135,056
2064	18,617,007	1,679,641	1,679,641	0	124,148	0	124,148
2065	18,318,005	1,648,972	1,648,972	0	113,908	0	113,908
2066	18,032,701	1,615,912	1,615,912	0	104,322	0	104,322
2067	17,764,852	1,580,667	1,580,667	0	95,370	0	95,370
2068	17,518,220	1,543,408	1,543,408	0	87,030	0	87,030
2069	17,296,623	1,504,294	1,504,294	0	79,275	0	79,275
2070	17,103,951	1,463,464	1,463,464	0	72,078	0	72,078
2071	16,944,199	1,421,048	1,421,048	0	65,410	0	65,410
2072	16,821,492	1,377,161	1,377,161	0	59,243	0	59,243
2073	16,740,106	1,331,899	1,331,899	0	53,548	0	53,548
2074	16,704,511	1,285,350	1,285,350	0	48,296	0	48,296
2075	16,719,397	1,237,593	1,237,593	0	43,459	0	43,459

Totals may not add due to rounding.



Single Discount Rate Development

Present Values of Projected Benefits (Concluded)

(Dollars in Thousands)

Fiscal Year Ending	Present Value of			Unfunded Portion of Benefit Payments	Present Value of							
	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments		Funded Benefit Payments using	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)					
					Expected Return Rate (v)							
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-2025.5)	(g)=(e)*vf ^((a)-2025.5)	(h)=(c)/(1+sdr)^(a-2025.5)					
2076	\$	16,789,696	\$	1,188,719	\$	0	\$	39,012	\$	0	\$	39,012
2077		16,920,596		1,138,824		0		34,929		0		34,929
2078		17,117,549		1,088,012		0		31,188		0		31,188
2079		17,386,284		1,036,397		0		27,765		0		27,765
2080		17,732,821		984,102		0		24,639		0		24,639
2081		18,163,478		931,260		0		21,791		0		21,791
2082		18,684,880		878,014		0		19,201		0		19,201
2083		19,303,979		824,517		0		16,851		0		16,851
2084		20,028,054		770,938		0		14,725		0		14,725
2085		20,864,728		717,462		0		12,808		0		12,808
2086		21,821,971		664,298		0		11,083		0		11,083
2087		22,908,101		611,670		0		9,537		0		9,537
2088		24,131,792		559,826		0		8,158		0		8,158
2089		25,502,075		509,029		0		6,932		0		6,932
2090		27,028,348		459,560		0		5,849		0		5,849
2091		28,720,382		411,706		0		4,897		0		4,897
2092		30,588,342		365,764		0		4,066		0		4,066
2093		32,642,805		322,024		0		3,346		0		3,346
2094		34,894,795		280,768		0		2,726		0		2,726
2095		37,355,823		242,255		0		2,198		0		2,198
2096		40,037,947		206,705		0		1,753		0		1,753
2097		42,953,848		174,285		0		1,381		0		1,381
2098		46,116,929		145,103		0		1,075		0		1,075
2099		49,541,432		119,196		0		825		0		825
2100		53,242,561		96,532		0		625		0		625
2101		57,236,629		77,011		0		466		0		466
2102		61,541,204		60,468		0		342		0		342
2103		66,175,263		46,688		0		247		0		247
2104		71,159,341		35,416		0		175		0		175
2105		76,515,689		26,372		0		122		0		122
2106		82,268,411		19,263		0		83		0		83
2107		88,443,616		13,793		0		56		0		56
2108		95,069,554		9,678		0		36		0		36
2109		102,176,760		6,654		0		23		0		23
2110		109,798,189		4,484		0		15		0		15
2111		117,969,362		2,965		0		9		0		9
2112		126,728,507		1,927		0		6		0		6
2113		136,116,717		1,235		0		3		0		3
2114		146,178,116		783		0		2		0		2
2115		156,960,035		495		0		1		0		1
2116		168,513,215		314		0		1		0		1
2117		180,892,020		201		0		0		0		0
2118		194,154,675		131		0		0		0		0
2119		208,363,522		87		0		0		0		0
2120		223,585,299		59		0		0		0		0
2121		239,891,442		40		0		0		0		0
2122		257,358,413		28		0		0		0		0
2123		276,068,044		19		0		0		0		0
2124		296,107,917		13		0		0		0		0
2125		317,571,761		20		0		0		0		0
Totals					\$	17,486,360	\$	0	\$	17,486,360		

Totals may not add due to rounding.



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

<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>Accrued Service</i>	Service credited under the system which was rendered before the date of the actuarial valuation.
<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 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 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 Payment</i>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<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>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>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>Fiduciary Net Position</i>	The fiduciary net position is the value of the net assets of the trust restricted for pension benefits.
<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 contribution entities to plan members for benefits provided through a defined benefit pension plan.
<i>Non-Employer Contribution Entities</i>	Non-employer contribution entities are entities that make contributions 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 contribution 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 Outflows (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.