

Public Employees Retirement Association of Minnesota

Local Government Correctional Service Retirement Plan

GASB Statements No. 67 and No. 68

Financial Reporting for Pensions - Revised

June 30, 2024





December 3, 2024

Public Employees Retirement Association of Minnesota
Local Government Correctional Service Retirement Plan
St. Paul, Minnesota

Dear Trustees of the Local Government Correctional Service Retirement 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 Local Government Correctional Service Retirement Plan, as amended by GASB Statement No. 82. These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

GASB Statement No. 67 is the accounting standard that applies to the financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust. GASB Statement No. 82 is an amendment to 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, 2024 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 Local Government Correctional Service Retirement 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

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BJW/SLC:dj



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SECTION A

EXECUTIVE SUMMARY

Executive Summary

as of June 30, 2024 (Dollars in Thousands)

	2024
Actuarial Valuation Date	June 30, 2024
Measurement Date of the Net Pension Liability	June 30, 2024
Employer's Fiscal Year Ending Date (Reporting Date)	Varies by Employer

Membership

Number of	
- Service Retirements	1,605
- Survivors	105
- Disability Retirements	248
- Deferred Retirements	4,637
- Terminated Other Non-Vested	2,635
- Active Members	3,914
- Total	13,144
Covered Payroll	\$ 254,734 ⁽¹⁾

Net Pension Liability

Total Pension Liability	\$ 1,238,891
Plan Fiduciary Net Position	1,208,413
Net Pension Liability	\$ 30,478
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	97.54%
Net Pension Liability as a Percentage of Covered Payroll	11.96%

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	3.97% ⁽²⁾
Last year ending June 30 in the 2025 to 2124 projection period for which projected benefit payments are fully funded	2124

Total Pension Expense/(Income)	\$ 40,384
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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	\$ 21,605	\$ -
Changes in assumptions	\$ -	\$ 103,116
Net difference between projected and actual earnings on pension plan investments	\$ 53,407	\$ 95,729
Total	\$ 75,012	\$ 198,845

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

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



Discussion

Accounting Standard

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

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

Financial Statements

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

Paragraph 57 of GASB Statement No. 68 states, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to the Local Government Correctional Service Retirement Plan subsequent to the measurement date of June 30, 2024.

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

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

- Sources of changes in the net pension liability;
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- 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 the actuarial value of assets, as prescribed by statutes), it is expected that:

- (1) The normal cost of the plan is expected to remain approximately level as a percent of pay;
- (2) The funded status of the plan is expected to gradually improve and is expected to be 100% funded within the next 24 years; and
- (3) The unfunded liability will grow initially as a dollar amount for 2 years (based on the current 24-year amortization period 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, 2024 and a measurement date of June 30, 2024.

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 3.97% (based on the weekly rate closest to but not later than the measurement date of Fidelity's "20-Year Municipal GO AA Index"); and the resulting single discount rate is 7.00%. PERA staff selected the long-term expected rate of investment return of 7.00% based on input from GRS that the proposed selection would be reasonable for the purpose of the measurement.

One-time State Aid

A one-time State aid contribution of \$5.3 million was contributed to the plan on October 1, 2023.



SECTION B

FINANCIAL STATEMENTS

Statement of Pension Expense under GASB Statement No. 68

Fiscal Year Ended June 30, 2024 (Dollars in Thousands)

A. Expense

1. Service Cost	\$ 35,354
2. Interest on the Total Pension Liability	\$ 77,971
3. Current-Period Benefit Changes	\$ 26,237
4. Employee Contributions (made negative for addition here)	\$ (14,851)
5. Projected Earnings on Plan Investments (made negative for addition here)	\$ (75,027)
6. Pension Plan Administrative Expense	\$ 641
7. Other Changes in Plan Fiduciary Net Position	\$ (5,233)
8. Recognition of Outflow (Inflow) of Resources due to differences between expected and actual experience in the measurement of the Total Pension Liability	
<i>Arising from Current Reporting Period</i>	\$ 6,449
9. Recognition of Outflow (Inflow) of Resources due to assumption changes	
<i>Arising from Current Reporting Period</i>	\$ -
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>	\$ (11,392)
11. Increase/(Decrease) from Experience in the Current Reporting Period	\$ 40,149
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>	\$ 4,736
13. Recognition of Outflow (Inflow) of Resources due to assumption changes	
<i>Arising from Prior Reporting Periods</i>	\$ 4,521
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>	\$ (9,022)
15. Total Pension Expense / (Income)	\$ 40,384

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 34,063 years. Additionally, the total plan membership (active employees and inactive employees) was 12,611. 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 3.00 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, 2024 (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	\$ 19,348
2. Assumption Changes (gains) or losses	\$ -
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	3.0000
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	\$ 6,449
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$ -
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$ 6,449
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	\$ 12,899
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$ -
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$ 12,899

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (56,958)
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	\$ (11,392)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (45,566)



Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Fiscal Year Ended June 30, 2024 (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	\$ 122,790	\$ 107,084	\$ 15,706
2. Due to Assets	\$ 31,599	\$ 52,013	\$ (20,414)
3. Total	\$ 154,389	\$ 159,097	\$ (4,708)

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	\$ 15,154	\$ 3,969	\$ 11,185
2. Assumption Changes	\$ 107,636	\$ 103,115	\$ 4,521
3. Net Difference between projected and actual earnings on pension plan investments	\$ 31,599	\$ 52,013	\$ (20,414)
4. Total	\$ 154,389	\$ 159,097	\$ (4,708)

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	\$ 21,605	\$ -	\$ 21,605
2. Assumption Changes	\$ -	\$ 103,116	\$ (103,116)
3. Net Difference between projected and actual earnings on pension plan investments	\$ 53,407	\$ 95,729	\$ (42,322)
4. Total	\$ 75,012	\$ 198,845	\$ (123,833)

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
2025	\$ (113,270)
2026	\$ 16,990
2027	\$ (16,162)
2028	\$ (11,391)
2029	\$ -
Thereafter	\$ -
Total	\$ (123,833)



Recognition of Deferred Outflows and Inflows of Resources Fiscal Year Ended June 30, 2024 (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					
2021	\$ (3,822)	4.0000	\$ (955)	\$ 0	0.0000
2022	\$ (9,042)	3.0000	\$ (3,014)	\$ 0	0.0000
2023	\$ 26,116	3.0000	\$ 8,705	\$ 8,706	1.0000
2024	\$ 19,348	3.0000	\$ 6,449	\$ 12,899	2.0000
Total			\$ 11,185	\$ 21,605	
Deferred Outflow (Inflow) Due to Assumption Changes					
2021	\$ 137,113	4.0000	\$ 34,279	\$ 0	0.0000
2022	\$ 220,073	3.0000	\$ 73,357	\$ 0	0.0000
2023	\$ (309,346)	3.0000	\$ (103,115)	\$ (103,116)	1.0000
2024	\$ 0	3.0000	\$ 0	\$ 0	2.0000
Total			\$ 4,521	\$ (103,116)	
Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments					
2020	\$ 24,475	5.0000	\$ 4,895	\$ 0	0.0000
2021	\$ (179,252)	5.0000	\$ (35,851)	\$ (35,851)	1.0000
2022	\$ 133,519	5.0000	\$ 26,704	\$ 53,407	2.0000
2023	\$ (23,852)	5.0000	\$ (4,770)	\$ (14,312)	3.0000
2024	\$ (56,958)	5.0000	\$ (11,392)	\$ (45,566)	4.0000
Total			\$ (20,414)	\$ (42,322)	
Deferred Outflow (Inflow) Due to All Sources					
Total			\$ (4,708)	\$ (123,833)	

Statement of Fiduciary Net Position (Dollars in Thousands)

	Market Value	
	June 30, 2024	June 30, 2023
Assets in Trust		
Cash, equivalents, short term securities	\$ 19,749	\$ 31,869
Fixed income	\$ 278,227	\$ 223,184
Equity	\$ 614,445	\$ 541,314
Private Markets	\$ 297,216	\$ 270,615
Other	\$ -	\$ -
Total Assets in Trust	\$ 1,209,637	\$ 1,066,982
Assets Receivable	\$ 964	\$ 884
Amounts Payable	\$ (2,188)	\$ (666)
Net Position Restricted for Pensions	\$ 1,208,413	\$ 1,067,200

Statement of Changes in Fiduciary Net Position

(Dollars in Thousands)

Change in Assets	Market Value	
Year Ending	June 30, 2024	June 30, 2023
1. Fund balance at market value at beginning of year	\$ 1,067,200	\$ 975,315
2. Adjustment to match beginning of year asset statement	\$ (1)	\$ -
3. Fund balance at market value at beginning of year	\$ 1,067,199	\$ 975,315
4. Contributions		
a. Member	\$ 14,851	\$ 13,894
b. Employer	\$ 22,209	\$ 20,518
c. Other sources	\$ -	\$ -
d. Total contributions	\$ 37,060	\$ 34,412
5. Investment income		
a. Investment income/(loss)	\$ 136,466	\$ 87,753
b. Investment expenses	\$ (4,481)	\$ (360)
c. Net subtotal	\$ 131,985	\$ 87,393
6. Other [^]	\$ 5,234	\$ -
7. Total additions: (4.d.) + (5.c.) + (6.)	\$ 174,279	\$ 121,805
8. Benefits Paid		
a. Annuity benefits	\$ (29,865)	\$ (27,117)
b. Refunds	\$ (2,559)	\$ (2,369)
c. Total benefits paid	\$ (32,424)	\$ (29,486)
9. Expenses		
a. Other	\$ -	\$ -
b. Administrative	\$ (641)	\$ (434)
c. Total expenses	\$ (641)	\$ (434)
10. Total deductions: (8.c.) + (9.c.)	\$ (33,065)	\$ (29,920)
11. Net increase (decrease) in net position: (2.) + (7.) + (10.)	\$ 141,213	\$ 91,885
12. Net position restricted for pensions	\$ 1,208,413	\$ 1,067,200
13. State Board of Investment calculated investment return [#]	12.4%	9.0%

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

[^] Includes \$5.3 million in one-time State aid in year ending 2024.



SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability and Related Ratios

Current Period

Fiscal Year Ended June 30, 2024 (Dollars in Thousands)

A. Total pension liability

1. Service Cost	\$	35,354
2. Interest on the Total Pension Liability	\$	77,971
3. Changes of benefit terms	\$	26,237
4. Difference between expected and actual experience of the Total Pension Liability	\$	19,348 ⁽²⁾
5. Changes of assumptions	\$	-
6. Benefit payments, including refunds of employee contributions	\$	(32,424)
7. Net change in total pension liability	\$	126,486
8. Total pension liability – beginning	\$	1,112,405
9. Total pension liability – ending	\$	<u><u>1,238,891</u></u>

B. Plan fiduciary net position

1. Contributions – employer	\$	22,209
2. Contributions – employee	\$	14,851
3. Net investment income	\$	131,985
4. Benefit payments, including refunds of employee contributions	\$	(32,424)
5. Pension Plan Administrative Expense	\$	(641)
6. Other	\$	5,233 ⁽³⁾
7. Net change in plan fiduciary net position	\$	141,213
8. Plan fiduciary net position – beginning	\$	1,067,200
9. Plan fiduciary net position – ending	\$	<u><u>1,208,413</u></u>

C. Net pension liability

\$ 30,478

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

97.54%

E. Covered-employee payroll

\$ 254,734 ⁽¹⁾

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

11.96%

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

⁽²⁾ Includes impact of changes in expected timing of future post-retirement benefit increases.

⁽³⁾ Includes (\$1) adjustment to the beginning of year assets.



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,	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability										
Service Cost	\$ 35,354	\$ 45,941	\$ 36,877	\$ 32,307	\$ 33,172	\$ 30,362	\$ 45,378	\$ 49,202	\$ 25,950	\$ 25,098
Interest on the Total Pension Liability	\$ 77,971	\$ 71,324	\$ 66,604	\$ 61,462	\$ 57,354	\$ 52,741	\$ 53,811	\$ 47,336	\$ 40,605	\$ 37,043
Benefit Changes	\$ 26,237	\$ 141	\$ -	\$ -	\$ -	\$ -	\$ (66,822)	\$ -	\$ -	\$ -
Difference between Expected and Actual Experience	\$ 19,348	\$ 26,116	\$ (9,042)	\$ (3,822)	\$ (12,083)	\$ (1,846)	\$ 1,018	\$ (3,516)	\$ 382	\$ (7,892)
Assumption Changes	\$ -	\$ (309,346)	\$ 220,073	\$ 137,113	\$ (1,977)	\$ (2,206)	\$ (209,457)	\$ (66,147)	\$ 310,332	\$ -
Benefit Payments	\$ (29,865)	\$ (27,117)	\$ (23,372)	\$ (20,088)	\$ (17,569)	\$ (15,381)	\$ (13,183)	\$ (11,033)	\$ (9,381)	\$ (7,777)
Refunds	\$ (2,559)	\$ (2,369)	\$ (2,713)	\$ (2,140)	\$ (2,709)	\$ (2,244)	\$ (1,364)	\$ (1,478)	\$ (982)	\$ (1,057)
Net Change in Total Pension Liability	\$ 126,486	\$ (195,310)	\$ 288,427	\$ 204,832	\$ 56,188	\$ 61,426	\$ (190,619)	\$ 14,364	\$ 366,906	\$ 45,415
Total Pension Liability - Beginning	\$ 1,112,405	\$ 1,307,715	\$ 1,019,288	\$ 814,456	\$ 758,268	\$ 696,842	\$ 887,461	\$ 873,097	\$ 506,191	\$ 460,776
Total Pension Liability - Ending (a)	\$ 1,238,891	\$ 1,112,405	\$ 1,307,715	\$ 1,019,288	\$ 814,456	\$ 758,268	\$ 696,842	\$ 887,461	\$ 873,097	\$ 506,191
Plan Fiduciary Net Position										
Employer Contributions	\$ 22,209	\$ 20,518	\$ 19,227	\$ 19,351	\$ 19,043	\$ 18,676	\$ 17,871	\$ 17,489	\$ 16,490	\$ 15,736
Employee Contributions	\$ 14,851	\$ 13,894	\$ 12,843	\$ 12,948	\$ 12,692	\$ 12,485	\$ 11,956	\$ 11,666	\$ 11,008	\$ 10,472
Pension Plan Net Investment Income	\$ 131,985	\$ 87,393	\$ (66,015)	\$ 238,666	\$ 31,774	\$ 50,853	\$ 62,962	\$ 78,363	\$ 209	\$ 20,373
Benefit Payments	\$ (29,865)	\$ (27,117)	\$ (23,372)	\$ (20,088)	\$ (17,569)	\$ (15,381)	\$ (13,183)	\$ (11,033)	\$ (9,381)	\$ (7,777)
Refunds	\$ (2,559)	\$ (2,369)	\$ (2,713)	\$ (2,140)	\$ (2,709)	\$ (2,244)	\$ (1,364)	\$ (1,478)	\$ (982)	\$ (1,057)
Pension Plan Administrative Expense	\$ (641)	\$ (434)	\$ (371)	\$ (344)	\$ (332)	\$ (361)	\$ (308)	\$ (330)	\$ (290)	\$ (247)
Other	\$ 5,233	\$ -	\$ -	\$ 1	\$ -	\$ -	\$ 1	\$ -	\$ (2)	\$ (1)
Net Change in Plan Fiduciary Net Position	\$ 141,213	\$ 91,885	\$ (60,401)	\$ 248,394	\$ 42,899	\$ 64,028	\$ 77,935	\$ 94,677	\$ 17,052	\$ 37,499
Plan Fiduciary Net Position - Beginning	\$ 1,067,200	\$ 975,315	\$ 1,035,716	\$ 787,322	\$ 744,423	\$ 680,395	\$ 602,460	\$ 507,783	\$ 490,731	\$ 453,232
Plan Fiduciary Net Position - Ending (b)	\$ 1,208,413	\$ 1,067,200	\$ 975,315	\$ 1,035,716	\$ 787,322	\$ 744,423	\$ 680,395	\$ 602,460	\$ 507,783	\$ 490,731
Net Pension Liability - Ending (a) - (b)	\$ 30,478	\$ 45,205	\$ 332,400	\$ (16,428)	\$ 27,134	\$ 13,845	\$ 16,447	\$ 285,001	\$ 365,314	\$ 15,460
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	97.54 %	95.94 %	74.58 %	101.61 %	96.67 %	98.17 %	97.64 %	67.89 %	58.16 %	96.95 %
Covered Employee Payroll	\$ 254,734	\$ 238,319	\$ 220,292	\$ 222,093	\$ 217,702	\$ 214,151	\$ 205,077	\$ 200,103	\$ 188,816	\$ 179,623
Net Pension Liability as a Percentage										
of Covered Employee Payroll	11.96 %	18.97 %	150.89 %	(7.40)%	12.46 %	6.47 %	8.02 %	142.43 %	193.48 %	8.61 %

Notes to Schedule:

N/A



Schedules of Required Supplementary Information

Schedule of 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
2015	\$ 506,191	\$ 490,731	\$ 15,460	96.95%	\$ 179,623	8.61%
2016	\$ 873,097	\$ 507,783	\$ 365,314	58.16%	\$ 188,816	193.48%
2017	\$ 887,461	\$ 602,460	\$ 285,001	67.89%	\$ 200,103	142.43%
2018	\$ 696,842	\$ 680,395	\$ 16,447	97.64%	\$ 205,077	8.02%
2019	\$ 758,268	\$ 744,423	\$ 13,845	98.17%	\$ 214,151	6.47%
2020	\$ 814,456	\$ 787,322	\$ 27,134	96.67%	\$ 217,702	12.46%
2021	\$ 1,019,288	\$ 1,035,716	\$ (16,428)	101.61%	\$ 222,093	-7.40%
2022	\$ 1,307,715	\$ 975,315	\$ 332,400	74.58%	\$ 220,292	150.89%
2023	\$ 1,112,405	\$ 1,067,200	\$ 45,205	95.94%	\$ 238,319	18.97%
2024	\$ 1,238,891	\$ 1,208,413	\$ 30,478	97.54%	\$ 254,734	11.96%

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
2015	\$ 13,759	\$ 15,736	\$ (1,977)	\$ 179,623	8.76%
2016	\$ 16,446	\$ 16,490	\$ (44)	\$ 188,816	8.73
2017	\$ 17,269	\$ 17,489	\$ (220)	\$ 200,103	8.74
2018	\$ 19,031	\$ 17,871	\$ 1,160	\$ 205,077	8.71
2019	\$ 19,466	\$ 18,676	\$ 790	\$ 214,151	8.72
2020	\$ 19,593	\$ 19,043	\$ 550	\$ 217,702	8.75
2021	\$ 19,167	\$ 19,351	\$ (184)	\$ 222,093	8.71
2022	\$ 13,063	\$ 19,227	\$ (6,164)	\$ 220,292	8.73
2023	\$ 13,251	\$ 20,518	\$ (7,267)	\$ 238,319	8.61
2024	\$ 23,206	\$ 22,209	\$ 997	\$ 254,734	8.72

Notes to Schedule of Contributions

Methods and Assumptions Used to Determine Contribution Rates for Fiscal Year Ending June 30, 2024:

Valuation Date	June 30, 2023
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	30 years
Asset Valuation Method	5-Year smoothed market; no corridor
Inflation	2.25%
Payroll Growth	3.00%
Salary Increases	3.00% to 11.00% 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 annuitant generational Public Safety mortality table projected with mortality improvement scale MP-2021, from a base year of 2010. Male rates adjusted by a factor of 0.98.

Other Information:

Notes	The plan is assumed to pay a 2.00% post-retirement benefit increase for all years. A one-time State aid contribution of \$5.3 million was contributed to the Plan on October 1, 2023. See separate funding report as of June 30, 2023 for additional detail.
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Schedule of Investment Returns Multiyear

Last 10 Fiscal Years

FY Ending June 30,	Annual Return¹
2015	4.4 %
2016	0.1
2017	15.2
2018	10.4
2019	7.4
2020	4.2
2021	30.2
2022	(6.4)
2023	9.0
2024	12.4

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, 2024, the annual money-weighted rate of return for the Local Government Correctional Service Retirement Plan was 12.4%. 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, 2024, 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	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, employer, and state contributions will be made at the current statutory contribution rates. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.00%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

(Dollars in Thousands)

	1% Decrease	Current Single Discount	1% Increase
	6.00%	Rate Assumption 7.00%	8.00%
Total Pension Liability	\$ 1,456,084	\$ 1,238,891	\$ 1,065,863
Net Position Restricted for Pensions	\$ 1,208,413	\$ 1,208,413	\$ 1,208,413
Net Pension Liability	\$ 247,671	\$ 30,478	\$ (142,550)

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

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Current Period		
				Deferred Outflows	Deferred Inflows	Pension Expense*
Balance Beginning of Year	\$ 1,112,405	\$ 1,067,200	\$ 45,205			
Changes for the Year:						
Service Cost	\$ 35,354		\$ 35,354			\$ 35,354
Interest on Total Pension Liability	77,971		77,971			77,971
Interest on Fiduciary Net Position		\$ 75,027	(75,027)			(75,027)
Changes in Benefit Terms	26,237		26,237			26,237
Liability Experience Gains and Losses	19,348		19,348	\$ 12,899	\$ -	6,449
Changes in Assumptions	-		-	-	-	-
Contributions - Employer		22,209	(22,209)			
Contributions - Employees		14,851	(14,851)			(14,851)
Asset Gain/(Loss)		56,958	(56,958)	-	45,566	(11,392)
Benefit Payouts	(32,424)	(32,424)				
Administrative Expenses		(641)	641			641
Other**		5,233	(5,233)			(5,233)
Net Changes	\$ 126,486	\$ 141,213	\$ (14,727)	\$ 12,899	\$ 45,566	\$ 40,149
Balance End of Year	\$ 1,238,891	\$ 1,208,413	\$ 30,478			

* Pension Expense from Experience in the Current Reporting Period.

**Includes (\$1) adjustment to the beginning of year assets.



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	\$ 1,112,405	\$ 1,067,200	\$ 45,205				
Changes for the Year:							
Service Cost	\$ 35,354		\$ 35,354				\$ 35,354
Interest on Total Pension Liability	77,971		77,971				77,971
Interest on Fiduciary Net Position		\$ 75,027	(75,027)				(75,027)
Changes in Benefit Terms	26,237		26,237				26,237
Liability Experience Gains and Losses	19,348		19,348	\$ 21,605	\$ -	\$ 13,442	11,185
Changes in Assumptions	-		-	-	103,116	(98,595)	4,521
Contributions - Employer		22,209	(22,209)				
Contributions - Employees		14,851	(14,851)				(14,851)
Asset Gain/(Loss)		56,958	(56,958)	53,407	95,729	(5,778)	(20,414)
Benefit Payouts	(32,424)	(32,424)					
Administrative Expenses		(641)	641				641
Other**		5,233	(5,233)				(5,233)
Net Changes	\$ 126,486	\$ 141,213	\$ (14,727)				\$ 40,384
Balance End of Year	\$ 1,238,891	\$ 1,208,413	\$ 30,478	\$ 75,012	\$ 198,845	\$ (90,931)	

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

**Includes (\$1) adjustment to the beginning of year assets.



Summary of Population Statistics

	Actives	Terminated		Recipients			Total
		Deferred Retirement	Other Non-Vested	Service Retirement	Disability Retirement	Survivor	
Members on July 1, 2023	3,786	4,378	2,604	1,506	237	100	12,611
New members	736						736
Return to active	56	(22)	(34)	0	0	0	0
Terminated non-vested	(341)	0	341	0	0	0	0
Service retirements	(45)	(72)	0	117	0	0	0
Terminated deferred	(177)	177	0	0	0	0	0
Terminated refund/transfer	(91)	(59)	(229)	0	0	0	(379)
Deaths	(3)	(5)	(3)	(18)	(3)	(3)	(35)
New beneficiary	0	0	0	0	0	8	8
Disabled	(7)	0	0	0	7	0	0
Data adjustments	0	240	(44)	0	7	0	203
Net change	128	259	31	99	11	5	533
Members on July 1, 2024	3,914	4,637	2,635	1,605	248	105	13,144

SECTION E

SUMMARY OF BENEFITS

Summary of Plan Provisions

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

Plan year	July 1 through June 30.		
Eligibility	Local government employees in covered correctional service for a county administered jail or correctional facility or in a regional correctional facility administered by multiple counties, who are directly responsible for security, custody and control of persons confined in jail or facility, who are expected to respond to incidents within the jail or facility, and who are not members of the Public Employees Police and Fire Fund.		
Contributions	Shown as a percent of salary:		
	<u>Effective as of</u>	<u>Member</u>	<u>Employer</u>
	Current	5.83%	8.75%
	July 1, 2025	6.83%	10.25%
	Member contributions are “picked up” according to the provisions of Internal Revenue Code 414(h).		
	A one-time direct State aid contribution of \$5.3 million was contributed to the Plan on October 1, 2023.		
Allowable service	Local Government Correctional Service during which member contributions were made (effective July 1, 1999). May also include certain leaves of absence, military service and periods while temporary Worker’s Compensation is paid.		
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	Hired before July 1, 2010:	100% vested after 3 years of Allowable Service.	
	Hired after June 30, 2010:	50% vested after 5 years of Allowable Service;	
		60% vested after 6 years of Allowable Service;	
		70% vested after 7 years of Allowable Service;	
		80% vested after 8 years of Allowable Service;	
		90% vested after 9 years of Allowable Service; and	
		100% vested after 10 years of Allowable Service.	

Summary of Plan Provisions (Continued)

Retirement	
<u>Normal retirement benefit</u>	
Age/service requirement	Age 55 and vested. Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.
Amount	1.9% of Average Salary for each year of Allowable Service earned through June 30, 2025, plus 2.2% of Average Salary for each year of Allowable Service earned on or after July 1, 2025, pro rata for completed months, adjusted for partial vesting if applicable.
<u>Early Retirement</u>	
Age/service requirement	Age 50 and vested.
Amount	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement date with actuarial reduction to commencement age assuming 3% augmentation to age 55 (2.50% if hired after June 30, 2006). Augmentation adjustment is phased out over a five-year period starting July 1, 2019, resulting in no augmentation adjustment after June 30, 2024.
<u>Form of payment</u>	Life annuity. Actuarially equivalent options are: 25%, 50%, 75% or 100% Joint and Survivor. If a Joint and Survivor benefit is elected and the beneficiary predeceases the annuitant, the annuitant's benefit increases to the Life Annuity amount. This "bounce back" is subsidized by the plan.
<u>Benefit increases</u>	Benefit recipients receive increases each year in January based upon 100% of the current Social Security increase, not less than 1.0% and not more than 2.5%, beginning January 1, 2019. If the funding status declines to 85% for two consecutive years or 80% for one year on a market value of assets basis, the maximum increase will be lowered to 1.5%. If the maximum increase is 1.5%, and the Plans' funding ratio improves to 85% for two consecutive years on a market value of assets basis, then the maximum increase will revert to 2.5%. A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Members receiving benefits for at least one month but less than 12 full months as of June 30 will receive a pro rata increase.
Disability	
<u>Duty Disability</u>	
Age/service requirement	Member who cannot perform duties as a direct result of a disability relating to an act of duty specific to protecting the property and personal safety of others.
Amount	55.0% (47.5% if disabled prior to July 1, 2025) of Average Salary plus 2.20% (1.90% if disabled prior to July 1, 2025) of Average Salary for each year in excess of 25 years of Allowable Service (pro rata for completed months). Payment begins at disability and ends at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.



Summary of Plan Provisions (Continued)

Disability (Concluded)	
<u>Regular Disability</u>	
Age/service requirement	At least one year of Allowable Service and a disability preventing member from performing normal duties that arise out of activities not related to covered employment or while at work; activities related to duties that do not present inherent dangers specific to occupation.
Amount	Normal Retirement Benefit based on Allowable Service (minimum of 10 years) and Average Salary at disability. Payment begins at disability and ends at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.
<u>Retirement benefit</u>	
Age/service requirement	Age 65 with continued disability.
Amount	Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 65 or the normal retirement benefit available at age 65, or an actuarially equivalent optional annuity.
<u>Form of payment</u>	Same as for retirement.
<u>Benefit increases</u>	Same as for retirement.
Death	
<u>Surviving spouse benefit</u>	
Age/service requirement	Vested active member at any age or vested former member age 50 or older who dies before retirement or disability benefit commences. If an active member dies, benefits may commence immediately, regardless of age.
Amount	Surviving spouse receives the 100% joint and survivor benefit using the Normal Retirement formula above. If commencement is prior to age 55, the appropriate early retirement formula described above applies except that one-half the monthly reduction factor is used from age 50 to the commencement age. In lieu of this benefit, the surviving spouse may elect a refund of contributions with interest or an actuarially equivalent term certain annuity (lump sum payable to estate at death).
Benefit increases	Same as for retirement.

Summary of Plan Provisions (Continued)

Death (Concluded)	
<u>Surviving dependent children's benefit</u>	
Age/service requirement	If no surviving spouse, all dependent children (biological or adopted) below age 23 who are dependent for more than half of their support on deceased
Amount	Actuarially equivalent to surviving spouse 100% joint and survivor annuity payable to the later of age 23 or five years. The amount is to be proportionally divided among surviving children.
<u>Refund of contributions</u>	
Age/service requirement	Active employee dies and survivor benefits paid are less than member's contributions or a former employee dies before annuity begins.
Amount	If no survivor benefits are paid, the member's contributions with 6.00% interest until June 30, 2011; 4.00% to June 30, 2018; 3.00% thereafter. If survivor benefits are paid and accumulated contributions exceed total payments to the surviving spouse and children, then the remaining contributions are paid out.
Termination	
<u>Refund of contributions</u>	
Age/service requirement	Termination of local government 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.
<u>Deferred benefit</u>	
Age/service requirement	Partially or fully vested.
Amount	<p>Benefit computed under law in effect at termination and increased by the following percentage (augmentation), compounded annually, if termination of employment is prior to January 1, 2012:</p> <ul style="list-style-type: none"> (a.) 3.00% (2.50% if hired after June 30, 2006) until the earlier of January 1 of the year following attainment of age 55 and January 1, 2012; (b.) 5.00% (2.50% if hired after June 30, 2006) thereafter until the earlier of the date the annuity begins and January 1, 2012; (c.) 1.00% from January 1, 2012 through December 31, 2018; and (d.) 0.00% thereafter. <p>If a member terminates employment after 2011, they are not eligible for augmentation.</p>
<u>Form of payment</u>	Same as for retirement.



Summary of Plan Provisions (Concluded)

Actuarial equivalent factors	Effective July 1, 2019, actuarially equivalent factors based on the RP-2014 mortality table for healthy annuitants for a member turning age 55 in 2021, reflecting projected mortality improvements using Scale MP-2017, male rates multiplied by 0.96, blended 65% males, 4.88% post-retirement interest, and 7.5% pre-retirement interest. Reflecting statutory requirements, joint and survivor factors are based on an interest assumption of 6.50%.
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 benefit 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.
Changes in plan provisions	<p>Employee contribution rates will increase from 5.83% of pay to 6.83% of pay, effective July 1, 2025.</p> <p>Employer contribution rates will increase from 8.75% of pay to 10.25% of pay, effective July 1, 2025.</p> <p>The benefit multiplier was changed from 1.9% to 2.2%, for service earned after June 30, 2025.</p>

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

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

Actuarial Cost Method

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

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

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

Valuation of Future Post-Retirement Benefit Increases

Benefit increases after retirement will equal 100% of the Social Security Cost of Living Adjustment, not less than 1.0% and not more than 2.50%, beginning January 1, 2019. Stochastic modeling was used to determine the assumption that benefit increases will equal 2.00% per year. This is only an assumption; actual increases will depend on actual experience. If the funding status on a market value basis declines to 85% for two consecutive years or 80% for one year, the maximum increase will be lowered to 1.50%. Effective July 1, 2023, the maximum benefit increase will revert back to 2.5%, if the maximum increase is 1.5% and the Plan's funding ratio improves to 85% for two consecutive years on a market value of assets basis.

To determine an assumption regarding a future change in the post-retirement benefit increase, we performed a projection of liabilities and assets based on the following methods and assumptions:

- Future investment returns of 7.00%.
- Liabilities and normal cost based on statutory funding assumptions.
- Open group; stable active population (new member profile based on average new members hired in recent years).

Based on these assumptions and methods, the projection indicates that this plan is not expected to deteriorate to the funding ratio threshold required to lower the maximum benefit increase to 1.50%.

Asset Valuation Method

Fair value of assets.



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

The following assumptions were used in valuing the liabilities and benefits under the Plan. All actuarial assumptions are prescribed by Minnesota Statutes, the Legislative Commission on Pensions and Retirement (LCPR), or the Board of Trustees. These parties are responsible for selecting the assumptions used for this valuation. Unless noted otherwise, the assumptions prescribed are based on the experience study dated July 10, 2020, and a review of inflation and investment assumptions in the General Employees Retirement Plan Experience Study dated June 29, 2023. An experience study for the 2019-2023 period was issued on July 31, 2024. This report recommended changes to demographic assumptions, expected to be effective at a future date. The Allowance for Combined Service Annuity assumptions are based on an analysis completed by the LCPR actuary and documented in a report dated October 2016.

Investment return	7.00% per annum.								
Single Discount Rate	7.00% per annum.								
Benefit increases after retirement	2.00% 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 Mortality Table adjusted for mortality improvements using projection scale MP-2021.								
Healthy post-retirement	Pub-2010 Healthy Retired Public Safety Mortality Table adjusted for mortality improvements using projection scale MP-2021. Male rates are adjusted by a factor of 0.98.								
Disabled	Pub-2010 Public Safety Disabled Retiree Mortality Table, adjusted for mortality improvements using projection scale MP-2021. Male rates are adjusted by a factor of 1.05.								
Notes	The Pub-2010 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 18 to 80 and the annuitant mortality table contains mortality rates for ages 50 to 120. We have extended the annuitant mortality table as needed for members 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 result in behavior changes that are not anticipated in the current retirement rates.								
Withdrawal	Select and Ultimate rates based on actual experience. Ultimate rates after the third year are shown in the rate table. Select rates in the first three years are:								
	<table> <tr> <th>Year</th><th>Select Withdrawal Rates</th></tr> <tr> <td>1</td><td>27%</td></tr> <tr> <td>2</td><td>23%</td></tr> <tr> <td>3</td><td>17%</td></tr> </table>	Year	Select Withdrawal Rates	1	27%	2	23%	3	17%
Year	Select Withdrawal Rates								
1	27%								
2	23%								
3	17%								



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.				
Allowance for combined service annuity	Liabilities for former members are increased by 35.0% for vested members and 1.0% 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, equal to prior year administrative expenses expressed as percentage of prior year projected payroll. In each subsequent year, equal to the initial administrative expense percentage applied to payroll for the closed group.				
Refund of contributions	For non-vested members, account balances accumulate interest until the assumed commencement date and are discounted back to the valuation date. Active members decrementing after becoming eligible for a benefit are assumed to take the contributions accumulated with interest if larger than the value of the benefit.				
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 55.				
Percentage married	75% of active members are assumed to be married. Actual marital status is used for members in payment status.				
Age of spouse	Females are assumed to be three years younger than their male spouses. 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 subsidized joint and survivor form of annuity as follows:</p> <table> <tr> <td>Males:</td><td> 10% elect 25% Joint & Survivor option 15% elect 50% Joint & Survivor option 5% elect 75% Joint & Survivor option 50% elect 100% Joint & Survivor option </td></tr> <tr> <td>Females:</td><td> 10% elect 25% Joint & Survivor option 10% elect 50% Joint & Survivor option 5% elect 75% Joint & Survivor option 25% 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>Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a straight life annuity.</p>	Males:	10% elect 25% Joint & Survivor option 15% elect 50% Joint & Survivor option 5% elect 75% Joint & Survivor option 50% elect 100% Joint & Survivor option	Females:	10% elect 25% Joint & Survivor option 10% elect 50% Joint & Survivor option 5% elect 75% Joint & Survivor option 25% elect 100% Joint & Survivor option
Males:	10% elect 25% Joint & Survivor option 15% elect 50% Joint & Survivor option 5% elect 75% Joint & Survivor option 50% elect 100% Joint & Survivor option				
Females:	10% elect 25% Joint & Survivor option 10% elect 50% Joint & Survivor option 5% elect 75% Joint & Survivor option 25% 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.				
Service credit accruals	It is assumed that members accrue one year of service credit per year.				
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.				



Summary of Actuarial Assumptions (Continued)

Unknown data for certain members	<p>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.</p> <p>In cases where submitted data was missing or incomplete, the following assumptions, based on average results for applicable members, were applied:</p> <p><u>Data for active members:</u></p> <p>There were 201 members reported with a salary less than \$100 after annualization. We used prior year salary (123 members), if available; otherwise high five salary with a 10% load to account for salary increases (72 members). If neither prior year salary nor high five salary was available, we assumed a value of \$43,000 (6 members).</p> <p>There were also 222 members reported without a gender. We assumed male gender. There were also 8 members reported without a date of birth. We assumed these members were hired at age 30.</p> <p><u>Data for terminated members:</u></p> <p>We calculated benefits for these members using the reported Average Salary and credited service. If credited service was not reported (34 members), we used elapsed time from hire date to termination date (16 members); if elapsed time was not available, we assumed four years of service. If termination date was invalid or not reported (28 members), we assumed the termination date was equal to the hire date plus credited service, otherwise the valuation date. If Average Salary was not reported (0 members), we assumed a value of \$24,000. If the reported termination date occurs prior to the reported hire date, the two dates were swapped.</p> <p><u>Data for retired members:</u></p> <p>There were 5 members reported without a gender; male was assumed. There were no members reported without a date of birth or benefit.</p> <p>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 104 retirees as disabled retirees in this valuation.</p>
Changes in actuarial assumptions since the prior valuation	There were no changes in actuarial assumptions since the prior valuation.



Summary of Actuarial Assumptions (Continued)

Age in 2024	Percentage of Members Dying Each Year*					
	Healthy Post- Retirement Mortality**		Healthy Pre- Retirement Mortality**		Disability Mortality**	
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.02%	0.13%	0.06%
25	0.04	0.02	0.04	0.02	0.13	0.08
30	0.06	0.04	0.06	0.04	0.18	0.12
35	0.07	0.05	0.07	0.05	0.22	0.17
40	0.09	0.06	0.08	0.06	0.25	0.20
45	0.13	0.08	0.09	0.07	0.28	0.22
50	0.18	0.13	0.11	0.08	0.35	0.27
55	0.28	0.25	0.17	0.12	0.48	0.45
60	0.51	0.46	0.27	0.17	0.78	0.72
65	0.86	0.73	0.41	0.22	1.24	1.00
70	1.41	1.15	0.70	0.39	1.84	1.40
75	2.43	1.98	1.26	0.78	2.99	2.11
80	4.41	3.56	2.36	1.62	5.19	3.56
85	8.12	6.37	7.41	5.58	8.77	6.37
90	14.43	11.20	14.72	11.20	15.46	11.20

* 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 these results.

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

Age	Withdrawal Rates		Rates of Disability Retirement	
	Male	Female	Male	Female
20	17.00%	17.00%	0.04%	0.04%
25	17.00	17.00	0.06	0.06
30	11.00	13.00	0.10	0.08
35	7.50	9.00	0.18	0.17
40	5.50	6.50	0.21	0.18
45	3.50	4.75	0.31	0.39
50	3.00	3.00	0.55	0.70
55	0.00	0.00	0.78	0.93
60	0.00	0.00	0.92	1.30
65	0.00	0.00	1.00	1.30

Summary of Actuarial Assumptions (Concluded)

Age	Retirement Rate	Salary Scale	
		Age	Increase
50	5%	20	11.00%
51	5	25	7.75
52	5	30	6.00
53	5	35	5.50
54	7	40	4.75
55	15	45	4.00
56	10	50	3.75
57	11	55	3.50
58	11	60	3.00
59	11	65	3.00
60	15	70+	3.00
61	15		
62	25		
63	25		
64	30		
65	40		
66	50		
67	40		
68	30		
69	40		
70+	100		

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 long-term expected 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 calculation, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 3.97%; and **the resulting single discount rate is 7.00%.**

If the funding status based on the market value of assets declines to 85% for two consecutive years or 80% for one year, the maximum increase of 2.50% will be lowered to 1.50%. Effective July 1, 2023, the maximum benefit increase will revert back to 2.5%, if the maximum increase is 1.5% and the Plan's funding ratio improves to 85% for two consecutive years on a market value of assets basis. The benefit payments in this projection are based on the assumption that benefit increases (currently subject to a maximum of 2.50%) will equal 2.00% per year.

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	Contributions for Current Employees	Contributions on Future Payroll Toward Current UAL*	Total Contributions
2024	\$ 254,734	\$ -	\$ 254,734				
2025	\$ 264,161	\$ 12,666	\$ 276,827	\$ 15,401	\$ 23,114	\$ -	\$ 38,515
2026	\$ 243,145	\$ 41,987	\$ 285,132	\$ 16,607	\$ 24,922	\$ 533	\$ 42,062
2027	\$ 228,009	\$ 65,677	\$ 293,686	\$ 15,573	\$ 23,371	\$ 834	\$ 39,778
2028	\$ 215,768	\$ 86,728	\$ 302,496	\$ 14,737	\$ 22,116	\$ 1,101	\$ 37,954
2029	\$ 204,869	\$ 106,702	\$ 311,571	\$ 13,993	\$ 20,999	\$ 1,355	\$ 36,347
2030	\$ 194,766	\$ 126,152	\$ 320,918	\$ 13,302	\$ 19,963	\$ 1,602	\$ 34,867
2031	\$ 185,251	\$ 145,295	\$ 330,546	\$ 12,653	\$ 18,988	\$ 1,845	\$ 33,486
2032	\$ 176,222	\$ 164,240	\$ 340,462	\$ 12,036	\$ 18,063	\$ 2,086	\$ 32,185
2033	\$ 167,688	\$ 182,988	\$ 350,676	\$ 11,453	\$ 17,188	\$ 2,324	\$ 30,965
2034	\$ 159,511	\$ 201,685	\$ 361,196	\$ 10,895	\$ 16,350	\$ 2,561	\$ 29,806
2035	\$ 151,570	\$ 220,462	\$ 372,032	\$ 10,352	\$ 15,536	\$ 2,800	\$ 28,688
2036	\$ 143,878	\$ 239,315	\$ 383,193	\$ 9,827	\$ 14,748	\$ 3,039	\$ 27,614
2037	\$ 136,401	\$ 258,288	\$ 394,689	\$ 9,316	\$ 13,981	\$ 3,280	\$ 26,577
2038	\$ 129,128	\$ 277,402	\$ 406,530	\$ 8,819	\$ 13,236	\$ 3,523	\$ 25,578
2039	\$ 122,016	\$ 296,709	\$ 418,725	\$ 8,334	\$ 12,507	\$ 3,768	\$ 24,609
2040	\$ 115,048	\$ 316,239	\$ 431,287	\$ 7,858	\$ 11,792	\$ 4,016	\$ 23,666
2041	\$ 108,221	\$ 336,005	\$ 444,226	\$ 7,391	\$ 11,093	\$ 4,267	\$ 22,751
2042	\$ 101,451	\$ 356,102	\$ 457,553	\$ 6,929	\$ 10,399	\$ 4,522	\$ 21,850
2043	\$ 94,808	\$ 376,471	\$ 471,279	\$ 6,475	\$ 9,718	\$ 4,781	\$ 20,974
2044	\$ 88,265	\$ 397,153	\$ 485,418	\$ 6,028	\$ 9,047	\$ 5,044	\$ 20,119
2045	\$ 81,787	\$ 418,193	\$ 499,980	\$ 5,586	\$ 8,383	\$ 5,311	\$ 19,280
2046	\$ 75,460	\$ 439,520	\$ 514,980	\$ 5,154	\$ 7,735	\$ 5,582	\$ 18,471
2047	\$ 69,209	\$ 461,220	\$ 530,429	\$ 4,727	\$ 7,094	\$ 5,857	\$ 17,678
2048	\$ 63,122	\$ 483,220	\$ 546,342	\$ 4,311	\$ 6,470	\$ 6,137	\$ 16,918
2049	\$ 57,266	\$ 505,466	\$ 562,732	\$ 3,911	\$ 5,870	\$ 6,419	\$ 16,200
2050	\$ 51,608	\$ 528,006	\$ 579,614	\$ 3,525	\$ 5,290	\$ 6,706	\$ 15,521
2051	\$ 46,206	\$ 550,796	\$ 597,002	\$ 3,156	\$ 4,736	\$ 6,995	\$ 14,887
2052	\$ 41,003	\$ 573,909	\$ 614,912	\$ 2,800	\$ 4,203	\$ 7,289	\$ 14,292
2053	\$ 36,070	\$ 597,290	\$ 633,360	\$ 2,464	\$ 3,697	\$ 7,586	\$ 13,747
2054	\$ 31,422	\$ 620,939	\$ 652,361	\$ 2,146	\$ 3,221	\$ 7,886	\$ 13,253
2055	\$ 27,058	\$ 644,873	\$ 671,931	\$ 1,848	\$ 2,773	\$ 8,190	\$ 12,811
2056	\$ 23,042	\$ 669,047	\$ 692,089	\$ 1,574	\$ 2,362	\$ 8,497	\$ 12,433
2057	\$ 19,369	\$ 693,483	\$ 712,852	\$ 1,323	\$ 1,985	\$ 8,807	\$ 12,115
2058	\$ 16,070	\$ 718,168	\$ 734,238	\$ 1,098	\$ 1,647	\$ 9,121	\$ 11,866
2059	\$ 13,149	\$ 743,116	\$ 756,265	\$ 898	\$ 1,348	\$ 9,438	\$ 11,684
2060	\$ 10,588	\$ 768,365	\$ 778,953	\$ 723	\$ 1,085	\$ 9,758	\$ 11,566
2061	\$ 8,374	\$ 793,947	\$ 802,321	\$ 572	\$ 858	\$ 10,083	\$ 11,513
2062	\$ 6,468	\$ 819,923	\$ 826,391	\$ 442	\$ 663	\$ 10,413	\$ 11,518
2063	\$ 4,863	\$ 846,320	\$ 851,183	\$ 332	\$ 498	\$ 10,748	\$ 11,578
2064	\$ 3,552	\$ 873,166	\$ 876,718	\$ 243	\$ 364	\$ 11,089	\$ 11,696
2065	\$ 2,505	\$ 900,515	\$ 903,020	\$ 171	\$ 257	\$ 11,437	\$ 11,865
2066	\$ 1,696	\$ 928,414	\$ 930,110	\$ 116	\$ 174	\$ 11,791	\$ 12,081
2067	\$ 1,098	\$ 956,916	\$ 958,014	\$ 75	\$ 113	\$ 12,153	\$ 12,341
2068	\$ 679	\$ 986,075	\$ 986,754	\$ 46	\$ 70	\$ 12,523	\$ 12,639
2069	\$ 401	\$ 1,015,956	\$ 1,016,357	\$ 27	\$ 41	\$ 12,903	\$ 12,971
2070	\$ 224	\$ 1,046,623	\$ 1,046,847	\$ 15	\$ 23	\$ 13,292	\$ 13,330
2071	\$ 117	\$ 1,078,136	\$ 1,078,253	\$ 8	\$ 12	\$ 13,692	\$ 13,712
2072	\$ 57	\$ 1,110,543	\$ 1,110,600	\$ 4	\$ 6	\$ 14,104	\$ 14,114
2073	\$ 26	\$ 1,143,892	\$ 1,143,918	\$ 2	\$ 3	\$ 14,527	\$ 14,532
2074	\$ 10	\$ 1,178,226	\$ 1,178,236	\$ 1	\$ 1	\$ 14,963	\$ 14,965

* Equal to total contributions (14.58% of payroll for new employees for FYE 2025 and 17.08% after) net of normal cost and expenses (15.81% of payroll), not less than 0.00%.

Totals may not add due to rounding.



Single Discount Rate Development

Projection of Contributions (Dollars in Thousands) (Concluded)

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*	Total Contributions
2075	\$ 2	\$ 1,213,581	\$ 1,213,583	\$ -	\$ -	\$ 15,412	\$ 15,412
2076	\$ -	\$ 1,249,990	\$ 1,249,990	\$ -	\$ -	\$ 15,875	\$ 15,875
2077	\$ -	\$ 1,287,490	\$ 1,287,490	\$ -	\$ -	\$ 16,351	\$ 16,351
2078	\$ -	\$ 1,326,115	\$ 1,326,115	\$ -	\$ -	\$ 16,842	\$ 16,842
2079	\$ -	\$ 1,365,898	\$ 1,365,898	\$ -	\$ -	\$ 17,347	\$ 17,347
2080	\$ -	\$ 1,406,875	\$ 1,406,875	\$ -	\$ -	\$ 17,867	\$ 17,867
2081	\$ -	\$ 1,449,082	\$ 1,449,082	\$ -	\$ -	\$ 18,403	\$ 18,403
2082	\$ -	\$ 1,492,554	\$ 1,492,554	\$ -	\$ -	\$ 18,955	\$ 18,955
2083	\$ -	\$ 1,537,331	\$ 1,537,331	\$ -	\$ -	\$ 19,524	\$ 19,524
2084	\$ -	\$ 1,583,450	\$ 1,583,450	\$ -	\$ -	\$ 20,110	\$ 20,110
2085	\$ -	\$ 1,630,954	\$ 1,630,954	\$ -	\$ -	\$ 20,713	\$ 20,713
2086	\$ -	\$ 1,679,883	\$ 1,679,883	\$ -	\$ -	\$ 21,335	\$ 21,335
2087	\$ -	\$ 1,730,279	\$ 1,730,279	\$ -	\$ -	\$ 21,975	\$ 21,975
2088	\$ -	\$ 1,782,187	\$ 1,782,187	\$ -	\$ -	\$ 22,634	\$ 22,634
2089	\$ -	\$ 1,835,653	\$ 1,835,653	\$ -	\$ -	\$ 23,313	\$ 23,313
2090	\$ -	\$ 1,890,723	\$ 1,890,723	\$ -	\$ -	\$ 24,012	\$ 24,012
2091	\$ -	\$ 1,947,444	\$ 1,947,444	\$ -	\$ -	\$ 24,733	\$ 24,733
2092	\$ -	\$ 2,005,868	\$ 2,005,868	\$ -	\$ -	\$ 25,475	\$ 25,475
2093	\$ -	\$ 2,066,044	\$ 2,066,044	\$ -	\$ -	\$ 26,239	\$ 26,239
2094	\$ -	\$ 2,128,025	\$ 2,128,025	\$ -	\$ -	\$ 27,026	\$ 27,026
2095	\$ -	\$ 2,191,866	\$ 2,191,866	\$ -	\$ -	\$ 27,837	\$ 27,837
2096	\$ -	\$ 2,257,622	\$ 2,257,622	\$ -	\$ -	\$ 28,672	\$ 28,672
2097	\$ -	\$ 2,325,350	\$ 2,325,350	\$ -	\$ -	\$ 29,532	\$ 29,532
2098	\$ -	\$ 2,395,111	\$ 2,395,111	\$ -	\$ -	\$ 30,418	\$ 30,418
2099	\$ -	\$ 2,466,964	\$ 2,466,964	\$ -	\$ -	\$ 31,330	\$ 31,330
2100	\$ -	\$ 2,540,973	\$ 2,540,973	\$ -	\$ -	\$ 32,270	\$ 32,270
2101	\$ -	\$ 2,617,202	\$ 2,617,202	\$ -	\$ -	\$ 33,238	\$ 33,238
2102	\$ -	\$ 2,695,718	\$ 2,695,718	\$ -	\$ -	\$ 34,236	\$ 34,236
2103	\$ -	\$ 2,776,590	\$ 2,776,590	\$ -	\$ -	\$ 35,263	\$ 35,263
2104	\$ -	\$ 2,859,888	\$ 2,859,888	\$ -	\$ -	\$ 36,321	\$ 36,321
2105	\$ -	\$ 2,945,684	\$ 2,945,684	\$ -	\$ -	\$ 37,410	\$ 37,410
2106	\$ -	\$ 3,034,055	\$ 3,034,055	\$ -	\$ -	\$ 38,532	\$ 38,532
2107	\$ -	\$ 3,125,077	\$ 3,125,077	\$ -	\$ -	\$ 39,688	\$ 39,688
2108	\$ -	\$ 3,218,829	\$ 3,218,829	\$ -	\$ -	\$ 40,879	\$ 40,879
2109	\$ -	\$ 3,315,394	\$ 3,315,394	\$ -	\$ -	\$ 42,106	\$ 42,106
2110	\$ -	\$ 3,414,856	\$ 3,414,856	\$ -	\$ -	\$ 43,369	\$ 43,369
2111	\$ -	\$ 3,517,301	\$ 3,517,301	\$ -	\$ -	\$ 44,670	\$ 44,670
2112	\$ -	\$ 3,622,820	\$ 3,622,820	\$ -	\$ -	\$ 46,010	\$ 46,010
2113	\$ -	\$ 3,731,505	\$ 3,731,505	\$ -	\$ -	\$ 47,390	\$ 47,390
2114	\$ -	\$ 3,843,450	\$ 3,843,450	\$ -	\$ -	\$ 48,812	\$ 48,812
2115	\$ -	\$ 3,958,753	\$ 3,958,753	\$ -	\$ -	\$ 50,276	\$ 50,276
2116	\$ -	\$ 4,077,516	\$ 4,077,516	\$ -	\$ -	\$ 51,784	\$ 51,784
2117	\$ -	\$ 4,199,842	\$ 4,199,842	\$ -	\$ -	\$ 53,338	\$ 53,338
2118	\$ -	\$ 4,325,837	\$ 4,325,837	\$ -	\$ -	\$ 54,938	\$ 54,938
2119	\$ -	\$ 4,455,612	\$ 4,455,612	\$ -	\$ -	\$ 56,586	\$ 56,586
2120	\$ -	\$ 4,589,280	\$ 4,589,280	\$ -	\$ -	\$ 58,284	\$ 58,284
2121	\$ -	\$ 4,726,959	\$ 4,726,959	\$ -	\$ -	\$ 60,032	\$ 60,032
2122	\$ -	\$ 4,868,767	\$ 4,868,767	\$ -	\$ -	\$ 61,833	\$ 61,833
2123	\$ -	\$ 5,014,830	\$ 5,014,830	\$ -	\$ -	\$ 63,688	\$ 63,688
2124	\$ -	\$ 5,165,275	\$ 5,165,275	\$ -	\$ -	\$ 65,599	\$ 65,599

* Equal to total contributions (14.58% of payroll for new employees for FYE 2025 and 17.08% after) net of normal cost and expenses (15.81% of payroll), not less than 0.00%.

Totals may not add due to rounding.



Single Discount Rate Development

Projection of Plan Fiduciary Net Position (Dollars in Thousands)

Fiscal Year Ending	Projected Beginning Plan 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)
2025	\$ 1,208,413	\$ 38,515	\$ 39,961	\$ 660	\$ 84,516	\$ 1,290,822
2026	\$ 1,290,822	\$ 42,062	\$ 44,317	\$ 608	\$ 90,259	\$ 1,378,219
2027	\$ 1,378,219	\$ 39,778	\$ 48,423	\$ 570	\$ 96,158	\$ 1,465,162
2028	\$ 1,465,162	\$ 37,954	\$ 52,421	\$ 539	\$ 102,045	\$ 1,552,201
2029	\$ 1,552,201	\$ 36,347	\$ 57,077	\$ 512	\$ 107,923	\$ 1,638,881
2030	\$ 1,638,881	\$ 34,867	\$ 62,350	\$ 487	\$ 113,759	\$ 1,724,671
2031	\$ 1,724,671	\$ 33,486	\$ 67,813	\$ 463	\$ 119,530	\$ 1,809,411
2032	\$ 1,809,411	\$ 32,185	\$ 73,341	\$ 441	\$ 125,228	\$ 1,893,042
2033	\$ 1,893,042	\$ 30,965	\$ 79,520	\$ 419	\$ 130,828	\$ 1,974,896
2034	\$ 1,974,896	\$ 29,806	\$ 85,788	\$ 399	\$ 136,303	\$ 2,054,818
2035	\$ 2,054,818	\$ 28,688	\$ 92,010	\$ 379	\$ 141,645	\$ 2,132,763
2036	\$ 2,132,763	\$ 27,614	\$ 98,539	\$ 360	\$ 146,841	\$ 2,208,318
2037	\$ 2,208,318	\$ 26,577	\$ 105,288	\$ 341	\$ 151,862	\$ 2,281,129
2038	\$ 2,281,129	\$ 25,578	\$ 111,990	\$ 323	\$ 156,695	\$ 2,351,090
2039	\$ 2,351,090	\$ 24,609	\$ 118,814	\$ 305	\$ 161,324	\$ 2,417,903
2040	\$ 2,417,903	\$ 23,666	\$ 125,706	\$ 288	\$ 165,732	\$ 2,481,308
2041	\$ 2,481,308	\$ 22,751	\$ 132,531	\$ 271	\$ 169,905	\$ 2,541,163
2042	\$ 2,541,163	\$ 21,850	\$ 139,226	\$ 254	\$ 173,834	\$ 2,597,367
2043	\$ 2,597,367	\$ 20,974	\$ 145,594	\$ 237	\$ 177,520	\$ 2,650,030
2044	\$ 2,650,030	\$ 20,119	\$ 152,134	\$ 221	\$ 180,952	\$ 2,698,748
2045	\$ 2,698,748	\$ 19,280	\$ 158,831	\$ 204	\$ 184,104	\$ 2,743,096
2046	\$ 2,743,096	\$ 18,471	\$ 165,453	\$ 189	\$ 186,953	\$ 2,782,878
2047	\$ 2,782,878	\$ 17,678	\$ 172,161	\$ 173	\$ 189,480	\$ 2,817,702
2048	\$ 2,817,702	\$ 16,918	\$ 178,674	\$ 158	\$ 191,668	\$ 2,847,455
2049	\$ 2,847,455	\$ 16,200	\$ 184,782	\$ 143	\$ 193,516	\$ 2,872,247
2050	\$ 2,872,247	\$ 15,521	\$ 190,705	\$ 129	\$ 195,025	\$ 2,891,958
2051	\$ 2,891,958	\$ 14,887	\$ 196,219	\$ 116	\$ 196,194	\$ 2,906,704
2052	\$ 2,906,704	\$ 14,292	\$ 201,468	\$ 103	\$ 197,025	\$ 2,916,451
2053	\$ 2,916,451	\$ 13,747	\$ 206,374	\$ 90	\$ 197,521	\$ 2,921,254
2054	\$ 2,921,254	\$ 13,253	\$ 210,812	\$ 79	\$ 197,687	\$ 2,921,304
2055	\$ 2,921,304	\$ 12,811	\$ 214,861	\$ 68	\$ 197,537	\$ 2,916,723
2056	\$ 2,916,723	\$ 12,433	\$ 218,373	\$ 58	\$ 197,083	\$ 2,907,808
2057	\$ 2,907,808	\$ 12,115	\$ 221,183	\$ 48	\$ 196,351	\$ 2,895,044
2058	\$ 2,895,044	\$ 11,866	\$ 223,177	\$ 40	\$ 195,381	\$ 2,879,073
2059	\$ 2,879,073	\$ 11,684	\$ 224,387	\$ 33	\$ 194,215	\$ 2,860,552
2060	\$ 2,860,552	\$ 11,566	\$ 224,807	\$ 26	\$ 192,901	\$ 2,840,186
2061	\$ 2,840,186	\$ 11,513	\$ 224,423	\$ 21	\$ 191,486	\$ 2,818,742
2062	\$ 2,818,742	\$ 11,518	\$ 223,362	\$ 16	\$ 190,022	\$ 2,796,904
2063	\$ 2,796,904	\$ 11,578	\$ 221,732	\$ 12	\$ 188,552	\$ 2,775,290
2064	\$ 2,775,290	\$ 11,696	\$ 219,547	\$ 9	\$ 187,118	\$ 2,754,548
2065	\$ 2,754,548	\$ 11,865	\$ 216,827	\$ 6	\$ 185,766	\$ 2,735,344
2066	\$ 2,735,344	\$ 12,081	\$ 213,590	\$ 4	\$ 184,540	\$ 2,718,371
2067	\$ 2,718,371	\$ 12,341	\$ 209,860	\$ 3	\$ 183,490	\$ 2,704,338
2068	\$ 2,704,338	\$ 12,639	\$ 205,664	\$ 2	\$ 182,662	\$ 2,693,973
2069	\$ 2,693,973	\$ 12,971	\$ 201,038	\$ 1	\$ 182,107	\$ 2,688,013
2070	\$ 2,688,013	\$ 13,330	\$ 196,024	\$ 1	\$ 181,875	\$ 2,687,193
2071	\$ 2,687,193	\$ 13,712	\$ 190,657	\$ -	\$ 182,015	\$ 2,692,264
2072	\$ 2,692,264	\$ 14,114	\$ 184,966	\$ -	\$ 182,580	\$ 2,703,991
2073	\$ 2,703,991	\$ 14,532	\$ 178,982	\$ -	\$ 183,621	\$ 2,723,162
2074	\$ 2,723,162	\$ 14,965	\$ 172,731	\$ -	\$ 185,193	\$ 2,750,589

For the purposes of this projection, we assumed the 17.08% statutory contribution rate effective fiscal year ending 2026 would continue after the plan becomes fully funded.

Totals may not add due to rounding.



Single Discount Rate Development

Projection of Plan Fiduciary Net Position (Dollars in Thousands)

(Concluded)

Fiscal Year Ending	Projected Beginning Plan 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)
2075	\$ 2,750,589	\$ 15,413	\$ 166,239	\$ -	\$ 187,352	\$ 2,787,115
2076	\$ 2,787,115	\$ 15,875	\$ 159,527	\$ -	\$ 190,155	\$ 2,833,618
2077	\$ 2,833,618	\$ 16,351	\$ 152,622	\$ -	\$ 193,664	\$ 2,891,011
2078	\$ 2,891,011	\$ 16,842	\$ 145,551	\$ -	\$ 197,942	\$ 2,960,244
2079	\$ 2,960,244	\$ 17,347	\$ 138,338	\$ -	\$ 203,054	\$ 3,042,307
2080	\$ 3,042,307	\$ 17,867	\$ 131,012	\$ -	\$ 209,068	\$ 3,138,231
2081	\$ 3,138,231	\$ 18,403	\$ 123,601	\$ -	\$ 216,056	\$ 3,249,089
2082	\$ 3,249,089	\$ 18,955	\$ 116,136	\$ -	\$ 224,092	\$ 3,376,001
2083	\$ 3,376,001	\$ 19,524	\$ 108,647	\$ -	\$ 233,254	\$ 3,520,132
2084	\$ 3,520,132	\$ 20,110	\$ 101,168	\$ -	\$ 243,620	\$ 3,682,694
2085	\$ 3,682,694	\$ 20,713	\$ 93,736	\$ -	\$ 255,276	\$ 3,864,947
2086	\$ 3,864,947	\$ 21,335	\$ 86,385	\$ -	\$ 268,308	\$ 4,068,204
2087	\$ 4,068,204	\$ 21,975	\$ 79,156	\$ -	\$ 282,807	\$ 4,293,830
2088	\$ 4,293,830	\$ 22,634	\$ 72,086	\$ -	\$ 298,867	\$ 4,543,244
2089	\$ 4,543,244	\$ 23,313	\$ 65,214	\$ -	\$ 316,585	\$ 4,817,928
2090	\$ 4,817,928	\$ 24,012	\$ 58,578	\$ -	\$ 336,066	\$ 5,119,428
2091	\$ 5,119,428	\$ 24,733	\$ 52,216	\$ -	\$ 357,414	\$ 5,449,359
2092	\$ 5,449,359	\$ 25,475	\$ 46,163	\$ -	\$ 380,743	\$ 5,809,414
2093	\$ 5,809,414	\$ 26,239	\$ 40,453	\$ -	\$ 406,170	\$ 6,201,370
2094	\$ 6,201,370	\$ 27,026	\$ 35,116	\$ -	\$ 433,818	\$ 6,627,097
2095	\$ 6,627,097	\$ 27,837	\$ 30,179	\$ -	\$ 463,816	\$ 7,088,571
2096	\$ 7,088,571	\$ 28,672	\$ 25,660	\$ -	\$ 496,304	\$ 7,587,886
2097	\$ 7,587,886	\$ 29,532	\$ 21,572	\$ -	\$ 531,426	\$ 8,127,272
2098	\$ 8,127,272	\$ 30,418	\$ 17,919	\$ -	\$ 569,339	\$ 8,709,109
2099	\$ 8,709,109	\$ 31,330	\$ 14,697	\$ -	\$ 610,210	\$ 9,335,953
2100	\$ 9,335,953	\$ 32,270	\$ 11,893	\$ -	\$ 654,218	\$ 10,010,548
2101	\$ 10,010,548	\$ 33,238	\$ 9,487	\$ -	\$ 701,556	\$ 10,735,855
2102	\$ 10,735,855	\$ 34,236	\$ 7,454	\$ -	\$ 752,431	\$ 11,515,068
2103	\$ 11,515,068	\$ 35,263	\$ 5,764	\$ -	\$ 807,070	\$ 12,351,637
2104	\$ 12,351,637	\$ 36,321	\$ 4,381	\$ -	\$ 865,714	\$ 13,249,290
2105	\$ 13,249,290	\$ 37,410	\$ 3,271	\$ -	\$ 928,625	\$ 14,212,054
2106	\$ 14,212,054	\$ 38,532	\$ 2,397	\$ -	\$ 996,087	\$ 15,244,277
2107	\$ 15,244,277	\$ 39,688	\$ 1,722	\$ -	\$ 1,068,406	\$ 16,350,649
2108	\$ 16,350,649	\$ 40,879	\$ 1,212	\$ -	\$ 1,145,910	\$ 17,536,227
2109	\$ 17,536,227	\$ 42,106	\$ 835	\$ -	\$ 1,228,956	\$ 18,806,453
2110	\$ 18,806,453	\$ 43,369	\$ 563	\$ -	\$ 1,317,925	\$ 20,167,184
2111	\$ 20,167,184	\$ 44,670	\$ 371	\$ -	\$ 1,413,227	\$ 21,624,710
2112	\$ 21,624,710	\$ 46,010	\$ 239	\$ -	\$ 1,515,305	\$ 23,185,785
2113	\$ 23,185,785	\$ 47,390	\$ 150	\$ -	\$ 1,624,630	\$ 24,857,655
2114	\$ 24,857,655	\$ 48,812	\$ 92	\$ -	\$ 1,741,712	\$ 26,648,087
2115	\$ 26,648,087	\$ 50,276	\$ 56	\$ -	\$ 1,867,094	\$ 28,565,402
2116	\$ 28,565,402	\$ 51,784	\$ 33	\$ -	\$ 2,001,359	\$ 30,618,512
2117	\$ 30,618,512	\$ 53,338	\$ 19	\$ -	\$ 2,145,130	\$ 32,816,962
2118	\$ 32,816,962	\$ 54,938	\$ 11	\$ -	\$ 2,299,077	\$ 35,170,967
2119	\$ 35,170,967	\$ 56,586	\$ 6	\$ -	\$ 2,463,914	\$ 37,691,461
2120	\$ 37,691,461	\$ 58,284	\$ 3	\$ -	\$ 2,640,408	\$ 40,390,150
2121	\$ 40,390,150	\$ 60,032	\$ 2	\$ -	\$ 2,829,376	\$ 43,279,556
2122	\$ 43,279,556	\$ 61,833	\$ 1	\$ -	\$ 3,031,696	\$ 46,373,085
2123	\$ 46,373,085	\$ 63,688	\$ -	\$ -	\$ 3,248,307	\$ 49,685,081
2124	\$ 49,685,081	\$ 65,599	\$ -	\$ -	\$ 3,480,213	\$ 53,230,892

For the purposes of this projection, we assumed the 17.08% statutory contribution rate effective fiscal year ending 2026 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)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
2025	\$ 1,208,413	\$ 39,961	\$ 39,961	\$ 0	\$ 38,632	\$ 0	\$ 38,632
2026	1,290,822	44,317	44,317	0	40,040	0	40,040
2027	1,378,219	48,423	48,423	0	40,888	0	40,888
2028	1,465,162	52,421	52,421	0	41,368	0	41,368
2029	1,552,201	57,077	57,077	0	42,096	0	42,096
2030	1,638,881	62,350	62,350	0	42,976	0	42,976
2031	1,724,671	67,813	67,813	0	43,684	0	43,684
2032	1,809,411	73,341	73,341	0	44,154	0	44,154
2033	1,893,042	79,520	79,520	0	44,742	0	44,742
2034	1,974,896	85,788	85,788	0	45,111	0	45,111
2035	2,054,818	92,010	92,010	0	45,217	0	45,217
2036	2,132,763	98,539	98,539	0	45,258	0	45,258
2037	2,208,318	105,288	105,288	0	45,194	0	45,194
2038	2,281,129	111,990	111,990	0	44,926	0	44,926
2039	2,351,090	118,814	118,814	0	44,546	0	44,546
2040	2,417,903	125,706	125,706	0	44,046	0	44,046
2041	2,481,308	132,531	132,531	0	43,399	0	43,399
2042	2,541,163	139,226	139,226	0	42,609	0	42,609
2043	2,597,367	145,594	145,594	0	41,643	0	41,643
2044	2,650,030	152,134	152,134	0	40,667	0	40,667
2045	2,698,748	158,831	158,831	0	39,680	0	39,680
2046	2,743,096	165,453	165,453	0	38,630	0	38,630
2047	2,782,878	172,161	172,161	0	37,566	0	37,566
2048	2,817,702	178,674	178,674	0	36,437	0	36,437
2049	2,847,455	184,782	184,782	0	35,217	0	35,217
2050	2,872,247	190,705	190,705	0	33,969	0	33,969
2051	2,891,958	196,219	196,219	0	32,664	0	32,664
2052	2,906,704	201,468	201,468	0	31,344	0	31,344
2053	2,916,451	206,374	206,374	0	30,007	0	30,007
2054	2,921,254	210,812	210,812	0	28,647	0	28,647
2055	2,921,304	214,861	214,861	0	27,287	0	27,287
2056	2,916,723	218,373	218,373	0	25,918	0	25,918
2057	2,907,808	221,183	221,183	0	24,535	0	24,535
2058	2,895,044	223,177	223,177	0	23,136	0	23,136
2059	2,879,073	224,387	224,387	0	21,740	0	21,740
2060	2,860,552	224,807	224,807	0	20,356	0	20,356
2061	2,840,186	224,423	224,423	0	18,992	0	18,992
2062	2,818,742	223,362	223,362	0	17,665	0	17,665
2063	2,796,904	221,732	221,732	0	16,389	0	16,389
2064	2,775,290	219,547	219,547	0	15,166	0	15,166
2065	2,754,548	216,827	216,827	0	13,998	0	13,998
2066	2,735,344	213,590	213,590	0	12,887	0	12,887
2067	2,718,371	209,860	209,860	0	11,834	0	11,834
2068	2,704,338	205,664	205,664	0	10,838	0	10,838
2069	2,693,973	201,038	201,038	0	9,901	0	9,901
2070	2,688,013	196,024	196,024	0	9,023	0	9,023
2071	2,687,193	190,657	190,657	0	8,202	0	8,202
2072	2,692,264	184,966	184,966	0	7,436	0	7,436
2073	2,703,991	178,982	178,982	0	6,725	0	6,725
2074	2,723,162	172,731	172,731	0	6,066	0	6,066

Totals may not add due to rounding.



Single Discount Rate Development

Present Values of Projected Benefits (Dollars in Thousands)

(Concluded)

Fiscal Year Ending	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{((a)-.5)}	(g)=(e)*vf ^{^((a)-.5)}	(h)=(c)/(1+sdr) ^{^(a-.5)}
2075	\$ 2,750,589	\$ 166,239	\$ 166,239	\$ 0	\$ 5,456	\$ 0	\$ 5,456
2076	2,787,115	159,527	159,527	0	4,893	0	4,893
2077	2,833,618	152,622	152,622	0	4,375	0	4,375
2078	2,891,011	145,551	145,551	0	3,899	0	3,899
2079	2,960,244	138,338	138,338	0	3,464	0	3,464
2080	3,042,307	131,012	131,012	0	3,066	0	3,066
2081	3,138,231	123,601	123,601	0	2,703	0	2,703
2082	3,249,089	116,136	116,136	0	2,374	0	2,374
2083	3,376,001	108,647	108,647	0	2,075	0	2,075
2084	3,520,132	101,168	101,168	0	1,806	0	1,806
2085	3,682,694	93,736	93,736	0	1,564	0	1,564
2086	3,864,947	86,385	86,385	0	1,347	0	1,347
2087	4,068,204	79,156	79,156	0	1,153	0	1,153
2088	4,293,830	72,086	72,086	0	982	0	982
2089	4,543,244	65,214	65,214	0	830	0	830
2090	4,817,928	58,578	58,578	0	697	0	697
2091	5,119,428	52,216	52,216	0	580	0	580
2092	5,449,359	46,163	46,163	0	480	0	480
2093	5,809,414	40,453	40,453	0	393	0	393
2094	6,201,370	35,116	35,116	0	319	0	319
2095	6,627,097	30,179	30,179	0	256	0	256
2096	7,088,571	25,660	25,660	0	203	0	203
2097	7,587,886	21,572	21,572	0	160	0	160
2098	8,127,272	17,919	17,919	0	124	0	124
2099	8,709,109	14,697	14,697	0	95	0	95
2100	9,335,953	11,893	11,893	0	72	0	72
2101	10,010,548	9,487	9,487	0	54	0	54
2102	10,735,855	7,454	7,454	0	39	0	39
2103	11,515,068	5,764	5,764	0	28	0	28
2104	12,351,637	4,381	4,381	0	20	0	20
2105	13,249,290	3,271	3,271	0	14	0	14
2106	14,212,054	2,397	2,397	0	10	0	10
2107	15,244,277	1,722	1,722	0	6	0	6
2108	16,350,649	1,212	1,212	0	4	0	4
2109	17,536,227	835	835	0	3	0	3
2110	18,806,453	563	563	0	2	0	2
2111	20,167,184	371	371	0	1	0	1
2112	21,624,710	239	239	0	1	0	1
2113	23,185,785	150	150	0	0	0	0
2114	24,857,655	92	92	0	0	0	0
2115	26,648,087	56	56	0	0	0	0
2116	28,565,402	33	33	0	0	0	0
2117	30,618,512	19	19	0	0	0	0
2118	32,816,962	11	11	0	0	0	0
2119	35,170,967	6	6	0	0	0	0
2120	37,691,461	3	3	0	0	0	0
2121	40,390,150	2	2	0	0	0	0
2122	43,279,556	1	1	0	0	0	0
2123	46,373,085	0	0	0	0	0	0
2124	49,685,081	0	0	0	0	0	0
Totals					\$ 1,556,997	\$ 0	\$ 1,556,997

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 assets of the trust.
<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 measurement of the Total Pension Liability
9. Recognition of Outflow (Inflow) of Resources due to Assumption Changes
10. Recognition of Outflow (Inflow) of Resources due to the difference between projected and actual earnings in 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 pension liability of the plan. For purposes of the GASB Statement No. 67, the asset valuation method is equal to the market value of assets.