

# Minnesota State Retirement System

State Employees Retirement Fund

GASB Statement Nos. 67 and 68

Accounting and Financial Reporting for Pensions

June 30, 2025





November 24, 2025

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

Dear Board of Directors:

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

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

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

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

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

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

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

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

Bonita J. Wurst and Sheryl L. Christensen are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company



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



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

BJW/SLC:dj



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SECTION A

EXECUTIVE SUMMARY

# Executive Summary

## as of June 30, 2025 (Dollars in Thousands)

	<b>2025</b>
Actuarial Valuation Date	June 30, 2025
Measurement Date of the Net Pension Liability	June 30, 2025
<b>Membership</b>	
Number of	
- Service Retirements	43,282
- Survivors	4,925
- Disability Retirements	1,618
- Deferred Retirements	19,431
- Terminated Other Non-Vested	12,066
- Active Members	57,594
- Total	<u>138,916</u>
Covered-employee Payroll	<u>\$ 4,556,436</u> <sup>(1)</sup>
<b>Net Pension Liability</b>	
Total Pension Liability	\$ 19,851,695
Plan Fiduciary Net Position	19,538,790
Net Pension Liability	<u>\$ 312,905</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	98.42%
Net Pension Liability as a Percentage of Covered-employee Payroll	6.87%
<b>Development of the Single Discount Rate</b>	
Single Discount Rate	7.00%
Long-Term Expected Rate of Investment Return	7.00%
Long-Term Municipal Bond Rate	5.20% <sup>(2)</sup>
Last year ending June 30 in the 2026 to 2125 projection period for which projected benefit payments are fully funded	2125
<b>Total Pension Expense/ (Income)</b>	<u>\$ 586,149</u>

### Deferred Outflows and Deferred Inflows by Source Arising from Current and Prior Periods to be Recognized in Future Pension Expenses

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Difference between expected and actual experience in the measurement of the Total Pension Liability	\$ 455,017	\$ 1,338
Changes in assumptions	49,262	379,203
Net difference between projected and actual earnings on pension plan investments	435,256	1,193,095
Totals	<u>\$ 939,535</u>	<u>\$ 1,573,636</u>

<sup>(1)</sup> Assumed equal to actual member contributions divided by employee contribution rate.

<sup>(2)</sup> Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in The Bond Buyer's Index's '20-Bond GO Index' as of June 30, 2025



# Discussion

## Accounting Standard

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

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

## Financial Statements

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

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

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

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

## Notes to Financial Statements

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

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

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

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

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

MSRS' comprehensive annual financial report, which contains the basic financial statements and related note disclosures for the State Employees Retirement Fund, can be found online at <https://www.mnretire.gov/annual-reports-fy-2025> or obtained from MSRS at 60 Empire Drive, Suite 300, St. Paul, Minnesota, 55103 or requested via email at [info@mnretire.gov](mailto:info@mnretire.gov) or telephone at 1.800.657.5757.

## Required Supplementary Information

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

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





## Measurement of the Net Pension Liability

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

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

Given the plan's contribution allocation procedure, if there are no changes in benefits, Chapter 356 required contributions are made, and all actuarial assumptions are met (including the assumption of the plan earning 7.0% on an actuarial value of assets basis, as prescribed by statutes), then the following outcomes are expected:

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

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

## Limitations of Funded Status Measurements

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

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

## Limitation of Project Scope

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

## Timing of the Valuation

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

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

## Single Discount Rate

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

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

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

## **SECTION B**

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### **FINANCIAL STATEMENTS**

# Statement of Pension Expense Under GASB Statement No. 68

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

### A. Expense/(Income)

1. Service Cost	\$ 387,797
2. Interest on the Total Pension Liability	1,247,605
3. Current-Period Benefit Changes	717,031
4. Employee Contributions	(250,604)
5. Projected Earnings on Plan Investments	(1,250,651)
6. Pension Plan Administrative Expense	12,708
7. Other Changes in Plan Fiduciary Net Position	(21,448)
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>	70,251
9. Recognition of Outflow (Inflow) of Resources due to assumption changes	
<i>Arising from Current Reporting Period</i>	12,316
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>	(138,492)
<b>11. Increases/(Decreases) from Experience in the Current Reporting Period</b>	<b>\$ 786,513</b>
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>	\$ 68,563
13. Recognition of Outflow (Inflow) of Resources due to assumption changes	
<i>Arising from Prior Reporting Periods</i>	146,111
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>	(415,038)
<b>15. Total Pension Expense/ (Income)</b>	<b>\$ 586,149</b>

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 642,382 years. Additionally, the total plan membership (active employees and inactive employees) was 134,925. 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 5.0000 years (rounded).

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

# Statement of Outflows and Inflows

## Arising from Current Reporting Period

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

#### A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 351,254
2. Assumption Changes (gains) or losses	61,578
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years, rounded to the nearest whole number}	5
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience in the measurement of the Total Pension Liability	70,251
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	12,316
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	<u>\$ 82,567</u>
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	\$ 281,003
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	49,262
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	<u>\$ 330,265</u>

#### B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (692,461)
2. Recognition period for Assets {in years}	5
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	<u>(138,492)</u>
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	<u>\$ (553,969)</u>

# Statement of Outflows and Inflows

## Arising from Current and Prior Reporting Periods

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

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

	Outflows of Resources	Inflows of Resources	Net Outflows/(Inflows) of Resources
1. Due to Liabilities	\$ 527,504	\$ 230,263	\$ 297,241
2. Due to Assets	435,255	988,785	(553,530)
<b>3. Total</b>	<b>\$ 962,759</b>	<b>\$ 1,219,048</b>	<b>\$ (256,289)</b>

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

	Outflows of Resources	Inflows of Resources	Net Outflows/(Inflows) of Resources
1. Differences between expected and actual experience	\$ 140,153	\$ 1,339	\$ 138,814
2. Assumption Changes	387,351	228,924	158,427
3. Net Difference between projected and actual earnings on pension plan investments	435,255	988,785	(553,530)
<b>4. Total</b>	<b>\$ 962,759</b>	<b>\$ 1,219,048</b>	<b>\$ (256,289)</b>

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

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows/ (Inflows) of Resources
1. Differences between expected and actual experience	\$ 455,017	\$ 1,338	\$ 453,679
2. Assumption Changes	49,262	379,203	(329,941)
3. Net Difference between projected and actual earnings on pension plan investments*	435,256	1,193,095	(757,839)
<b>4. Total</b>	<b>\$ 939,535</b>	<b>\$ 1,573,636</b>	<b>\$ (634,101)</b>

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

Year Ending June 30	Net Deferred Outflows/ (Inflows) of Resources
2026	\$ (18,406)
2027	(349,513)
2028	(210,254)
2029	(55,928)
2030	-
Thereafter	-
<b>Total</b>	<b>\$ (634,101)</b>

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

## Recognition of Deferred Outflows and Inflows of Resources

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

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
<b>Deferred Outflow (Inflow) Due to Differences Between Expected and Actual Experience on Liabilities</b>					
2021	\$ 13,632	5.0000	\$ 2,727	\$ 0	0.0000
2022	(6,694)	5.0000	(1,339)	(1,338)	1.0000
2023	137,549	5.0000	27,510	55,019	2.0000
2024	198,325	5.0000	39,665	118,995	3.0000
2025	351,254	5.0000	70,251	281,003	4.0000
<b>Total</b>			<b>\$ 138,814</b>	<b>\$ 453,679</b>	
<b>Deferred Outflow (Inflow) Due to Assumption Changes</b>					
2021	\$ 1,875,179	5.0000	\$ 375,035	\$ 0	0.0000
2022	(514,065)	5.0000	(102,813)	(102,813)	1.0000
2023	(509,721)	5.0000	(101,944)	(203,889)	2.0000
2024	(120,835)	5.0000	(24,167)	(72,501)	3.0000
2025	61,578	5.0000	12,316	49,262	4.0000
<b>Total</b>			<b>\$ 158,427</b>	<b>\$ (329,941)</b>	
<b>Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments</b>					
2021	\$ (3,078,219)	5.0000	\$ (615,643)	\$ 0	0.0000
2022	2,176,276	5.0000	435,255	435,256	1.0000
2023	(324,120)	5.0000	(64,824)	(129,648)	2.0000
2024	(849,130)	5.0000	(169,826)	(509,478)	3.0000
2025	(692,461)	5.0000	(138,492)	(553,969)	4.0000
<b>Total</b>			<b>\$ (553,530)</b>	<b>\$ (757,839)</b>	
<b>Deferred Outflow (Inflow) Due to All Sources</b>					
<b>Total</b>			<b>\$ (256,289)</b>	<b>\$ (634,101)</b>	

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

<b>Assets</b>	<b>June 30, 2025</b>
Cash & Short-term Investments	\$ 549,156
Receivables	36,078
Investment Pools (at fair value)	18,959,523
Securities Lending Collateral	723,567
Capital Assets	17,046
<b>Total Assets</b>	<b>\$ 20,285,370</b>
 <b>Total Deferred Outflows of Resources</b>	 \$ -
<b>Total Liabilities</b>	<b>\$ (746,580)</b>
<b>Total Deferred Inflows of Resources</b>	<b>\$ -</b>
 <b>Net Position Restricted for Pensions</b>	 <b>\$ 19,538,790</b>



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

1.a. Net Position at market value at beginning of year, as reported	\$ 18,138,356
1.b. Change in accounting principle	<u>(1,136)</u>
<b>1.c. Net position at market value at beginning of year</b>	<b><u>\$ 18,137,220</u></b>
<b>Additions</b>	
2. Contributions	
a. Employee	\$ 250,604
b. Employer	283,169
c. Other sources	-
d. Total contributions	<u>\$ 533,773</u>
3. Investment income	
a. Investment income/(loss)	\$ 2,014,282
b. Investment expenses	<u>(71,170)</u>
c. Net investment income/(loss)	\$ 1,943,112
4. Other Additions	<u>22,584</u>
<b>5. Total Additions (2.d.) + (3.c.) + (4.)</b>	<b><u>\$ 2,499,469</u></b>
<b>Deductions</b>	
6. Benefits Paid	
a. Annuity benefits	\$ (1,068,310)
b. Refunds	<u>(16,881)</u>
c. Total benefits paid	<u>\$ (1,085,191)</u>
7. Expenses	
a. Other deductions	\$ -
b. Administrative	<u>(12,708)</u>
c. Total expenses	<u>\$ (12,708)</u>
<b>8. Total deductions (6.c.) + (7.c.)</b>	<b><u>\$ (1,097,899)</u></b>
<b>9. Net increase/(decrease) in fiduciary net position (5.) + (8.)</b>	<b><u>\$ 1,401,570</u></b>
<b>10. Net position at market value at end of year (1.) + (9.)</b>	<b><u><u>\$ 19,538,790</u></u></b>
11. State Board of Investment calculated annual investment return for the State Employees Retirement Fund*	10.9%

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

## SECTION C

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### REQUIRED SUPPLEMENTARY INFORMATION

# Schedule of Changes in Net Pension Liability and Related Ratios

## Current Period

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

<b>A. Total pension liability</b>	
1. Service Cost	\$ 387,797
2. Interest on the total pension liability	1,247,605
3. Changes of benefit terms	717,031
4. Difference between expected and actual experience of the total pension liability	351,254
5. Changes of assumptions	61,578
6. Benefit payments, including refunds of employee contributions	(1,085,191)
7. Net change in total pension liability	\$ 1,680,074
8. Total pension liability – beginning	18,171,621
9. Total pension liability – ending	<u><u>\$ 19,851,695</u></u>
<b>B. Plan fiduciary net position</b>	
1. Contributions – employer	\$ 283,169
2. Contributions – employee	250,604
3. Net investment income	1,943,112
4. Benefit payments, including refunds of employee contributions	(1,085,191)
5. Pension plan administrative expense	(12,708)
6. Other changes <sup>(2)</sup>	21,448
7. Net change in plan fiduciary net position	\$ 1,400,434
8. Plan fiduciary net position – beginning	18,138,356
9. Plan fiduciary net position – ending	<u><u>\$ 19,538,790</u></u>
<b>C. Net pension liability, A.9. - B.9.</b>	<u><u>\$ 312,905</u></u>
<b>D. Plan fiduciary net position as a percentage of the total pension liability, B.9. / A.9.</b>	<b>98.42%</b>
<b>E. Covered-employee payroll</b>	\$ 4,556,436 <sup>(1)</sup>
<b>F. Net pension liability as a percentage of covered-employee payroll, C. / E.</b>	<b>6.87%</b>

<sup>(1)</sup> Assumed equal to actual member contributions divided by member contribution rate.

<sup>(2)</sup> Includes a \$(1,136) adjustment to the beginning of year assets.



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

## Last 10 Fiscal Years

Fiscal year ending June 30,	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
<b>Total Pension Liability</b>										
Service Cost	\$ 387,797	\$ 342,616	\$ 331,361	\$ 340,333	\$ 270,993	\$ 267,779	\$ 255,056	\$ 455,709	\$ 619,666	\$ 211,491
Interest on the Total Pension Liability	1,247,605	1,207,244	1,156,223	1,117,920	1,113,853	1,114,756	1,078,390	1,069,154	982,066	1,020,925
Benefit Changes	717,031	-	36,428	-	-	-	-	(1,711,128)	83,490	-
Difference between Expected and Actual Experience	351,254	198,325	137,549	(6,694)	13,632	(12,979)	23,180	(8,132)	49,659	21,209
Assumption Changes	61,578	(120,835)	(509,721)	(514,065)	1,875,179	(465,611)	-	(4,219,074)	(4,691,209)	9,911,319
Benefit Payments	(1,068,310)	(1,043,040)	(1,001,955)	(966,698)	(923,364)	(885,517)	(841,776)	(797,027)	(750,526)	(707,361)
Refunds	(16,881)	(18,498)	(17,209)	(19,243)	(12,556)	(13,725)	(15,199)	(13,533)	(11,576)	(13,345)
<b>Net Change in Total Pension Liability</b>	<b>\$ 1,680,074</b>	<b>\$ 565,812</b>	<b>\$ 132,676</b>	<b>\$ (48,447)</b>	<b>\$ 2,337,737</b>	<b>\$ 4,703</b>	<b>\$ 499,651</b>	<b>\$ (5,224,031)</b>	<b>\$ (3,718,430)</b>	<b>\$ 10,444,238</b>
<b>Total Pension Liability - Beginning</b>	<b>18,171,621</b>	<b>17,605,809</b>	<b>17,473,133</b>	<b>17,521,580</b>	<b>15,183,843</b>	<b>15,179,140</b>	<b>14,679,489</b>	<b>19,903,520</b>	<b>23,621,950</b>	<b>13,177,712</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$19,851,695</b>	<b>\$18,171,621</b>	<b>\$17,605,809</b>	<b>\$17,473,133</b>	<b>\$17,521,580</b>	<b>\$15,183,843</b>	<b>\$15,179,140</b>	<b>\$14,679,489</b>	<b>\$19,903,520</b>	<b>\$23,621,950</b>
<b>Plan Fiduciary Net Position</b>										
Employer Contributions	\$ 283,169	\$ 328,980	\$ 227,175	\$ 212,759	\$ 206,381	\$ 204,006	\$ 182,939	\$ 164,233	\$ 158,352	\$ 151,168
Employee Contributions	250,604	223,460	218,890	206,056	199,525	197,897	182,210	166,726	161,670	153,854
Pension Plan Net Investment Income	1,943,112	1,996,672	1,373,781	(1,060,537)	4,098,129	569,670	948,366	1,276,550	1,667,562	(9,633)
Benefit Payments	(1,068,310)	(1,043,040)	(1,001,955)	(966,698)	(923,364)	(885,517)	(841,776)	(797,027)	(750,526)	(707,361)
Refunds	(16,881)	(18,498)	(17,209)	(19,243)	(12,556)	(13,725)	(15,199)	(13,533)	(11,576)	(13,345)
Pension Plan Administrative Expense	(12,708)	(11,826)	(10,668)	(10,483)	(10,779)	(10,261)	(9,877)	(9,564)	(10,165)	(10,196)
Other Changes	21,448	17,601	25,143	27,945	27,024	21,332	32,204	20,423	47,232	20,259
<b>Net Change in Plan Fiduciary Net Position</b>	<b>\$ 1,400,434</b>	<b>\$ 1,493,349</b>	<b>\$ 815,157</b>	<b>\$ (1,610,201)</b>	<b>\$ 3,584,360</b>	<b>\$ 83,402</b>	<b>\$ 478,867</b>	<b>\$ 807,808</b>	<b>\$ 1,262,549</b>	<b>\$ (415,254)</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>18,138,356</b>	<b>16,645,007</b>	<b>15,829,850</b>	<b>17,440,051</b>	<b>13,855,691</b>	<b>13,772,289</b>	<b>13,293,422</b>	<b>12,485,614</b>	<b>11,223,065</b>	<b>11,638,319</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$19,538,790</b>	<b>\$18,138,356</b>	<b>\$16,645,007</b>	<b>\$15,829,850</b>	<b>\$17,440,051</b>	<b>\$13,855,691</b>	<b>\$13,772,289</b>	<b>\$13,293,422</b>	<b>\$12,485,614</b>	<b>\$11,223,065</b>
<b>Net Pension Liability - Ending (a) - (b)</b>	<b>\$ 312,905</b>	<b>\$ 33,265</b>	<b>\$ 960,802</b>	<b>\$ 1,643,283</b>	<b>\$ 81,529</b>	<b>\$ 1,328,152</b>	<b>\$ 1,406,851</b>	<b>\$ 1,386,067</b>	<b>\$ 7,417,906</b>	<b>\$12,398,885</b>
<b>Plan Fiduciary Net Position as a Percentage</b>										
of Total Pension Liability	98.42 %	99.82 %	94.54 %	90.60 %	99.53 %	91.25 %	90.73 %	90.56 %	62.73 %	47.51 %
<b>Covered-Employee Payroll <sup>(1)</sup></b>	<b>\$ 4,556,436</b>	<b>\$ 4,062,909</b>	<b>\$ 3,648,167</b>	<b>\$ 3,434,267</b>	<b>\$ 3,325,417</b>	<b>\$ 3,298,283</b>	<b>\$ 3,168,870</b>	<b>\$ 3,031,382</b>	<b>\$ 2,939,455</b>	<b>\$ 2,797,345</b>
<b>Net Pension Liability as a Percentage</b>										
of Covered-Employee Payroll	6.87 %	0.82 %	26.34 %	47.85 %	2.45 %	40.27 %	44.40 %	45.72 %	252.36 %	443.24 %

**Notes to Schedule:**

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



# Schedule of Net Pension Liability Multiyear (Dollars in Thousands)

## Last 10 Fiscal Years

Fiscal Year Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered- employee Payroll	Net Pension Liability as a % of Covered- employee Payroll
	( a )	( b )	( a ) - ( b ) = ( c )	( b ) / ( a )	( d )	( c ) / ( d )
2016	\$ 23,621,950	\$ 11,223,065	\$ 12,398,885	47.51%	\$ 2,797,345	443.24%
2017	19,903,520	12,485,614	7,417,906	62.73	2,939,455	252.36
2018	14,679,489	13,293,422	1,386,067	90.56	3,031,382	45.72
2019	15,179,140	13,772,289	1,406,851	90.73	3,168,870	44.40
2020	15,183,843	13,855,691	1,328,152	91.25	3,298,283	40.27
2021	17,521,580	17,440,051	81,529	99.53	3,325,417	2.45
2022	17,473,133	15,829,850	1,643,283	90.60	3,434,267	47.85
2023	17,605,809	16,645,007	960,802	94.54	3,648,167	26.34
2024	18,171,621	18,138,356	33,265	99.82	4,062,909	0.82
2025	19,851,695	19,538,790	312,905	98.42	4,556,436	6.87

# Schedule of Contributions Multiyear (Dollars in Thousands)

## Last 10 Fiscal Years

Fiscal Year Ending June 30,	Actuarially Determined Contribution <sup>(1)</sup>	Actual Contributions	Contribution Deficiency (Excess)	Covered- Employee Payroll <sup>(2)</sup>	Actual Contribution as a % of Covered- Employee Payroll
	( a )	( b )	( a ) - ( b ) = ( c )	( d )	( b ) / ( d )
2016	\$ 194,136	\$ 151,168	\$ 42,968	\$ 2,797,345	5.40%
2017	264,257	158,352	105,905	2,939,455	5.39
2018	234,629	164,233	70,396	3,031,382	5.42
2019	183,161	182,939	222	3,168,870	5.77
2020	184,044	204,006	(19,962)	3,298,283	6.19
2021	151,639	206,381	(54,742)	3,325,417	6.21
2022	107,493	212,759	(105,266)	3,434,267	6.20
2023	85,002	227,175	(142,173)	3,648,167	6.23
2024	205,583	328,980	(123,397)	4,062,909	8.10
2025	209,140	283,169	(74,029)	4,556,436	6.21

## Notes to Schedule of Contributions

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

#### Notes

(1) Actuarially determined contribution rates are calculated as of each June 30 and apply to the fiscal year beginning on the day after the measurement date.

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

Valuation Date June 30, 2024

Actuarial Cost Method Entry Age Normal

Amortization Method Level Percentage of Payroll, Closed

Remaining Amortization Period 24 Years

Asset Valuation Method 5-Year smoothed market; no corridor

Inflation 2.25%

Payroll Growth 3.00%

Salary Increases Service-based table of rates ranging from 11.75% with one year of service to 3.00% with 27 or more years of service, including inflation.

Investment Rate of Return 7.00%

Retirement Age Experience-based table of rates that are specific to the type of eligibility condition.

Healthy Post-retirement Mortality Pub-2010 General Retiree Mortality Table adjusted for mortality improvements using mortality improvement scale MP-2021. Rates are multiplied by a factor of 1.04 for males and 1.10 for females.

#### Other Information

Benefit Increases After Retirement The post-retirement increase is 1.50% for all future years.

See separate funding actuarial valuation report as of July 1, 2024 for additional detail. To obtain this report, contact MSRS as noted on page 3. This report is also available online at:

<https://www.mnretire.gov/annual-reports-fy-2024>



# Schedule of Investment Returns Multiyear

## Last 10 Fiscal Years

Fiscal Year Ending June 30,	Annual Return <sup>1</sup>
2016	(0.1) %
2017	15.2
2018	10.5
2019	7.3
2020	4.2
2021	30.3
2022	(6.2)
2023	8.9
2024	12.3
2025	10.9

<sup>1</sup> Annual money-weighted rate of return, net of investment expenses.

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

## Rate of Return

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

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



## SECTION D

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### ADDITIONAL FINANCIAL STATEMENT DISCLOSURES



# Asset Allocation

## Long-Term Expected Return on Plan Assets

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

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

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

For purposes of this valuation, the long-term expected rate of return assumption is 7.00%. This assumption is based on the 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 an 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 employee and employer contributions will be made at the current statutory contribution rates. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. As a result, 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 fund's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

### Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

*(Dollars in Thousands)*

	1% Decrease 6.00%	Current Single Discount Rate Assumption 7.00%	1% Increase 8.00%
Total Pension Liability	\$ 22,422,219	\$ 19,851,695	\$ 17,729,656
Net Position Restricted for Pensions	19,538,790	19,538,790	19,538,790
Net Pension Liability	<u>\$ 2,883,429</u>	<u>\$ 312,905</u>	<u>\$ (1,809,134)</u>

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

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

## GASB Statement No. 68 Reconciliation (Dollars in Thousands)

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Deferred Outflows	Deferred Inflows	Total Pension Expense
<b>Balance Beginning of Year</b>	<b>\$ 18,171,621</b>	<b>\$ 18,138,356</b>	<b>\$ 33,265</b>	<b>\$ 1,489,462</b>	<b>\$ 2,100,223</b>	
<b>Changes for the Year:</b>						
Service Cost	\$ 387,797		\$ 387,797			\$ 387,797
Interest on Total Pension Liability	1,247,605		1,247,605			1,247,605
Interest on Fiduciary Net Position		\$ 1,250,651 <sup>(1)</sup>	(1,250,651)			(1,250,651)
Changes in Benefit Terms	717,031		717,031			717,031
Liability Experience Gains and Losses	351,254		351,254	\$ 281,003	\$ -	70,251
Changes in Assumptions	61,578		61,578	49,262	-	12,316
Recognition of Deferred Outflows/(Inflows) of Resources Arising from Prior Reporting Periods						
Liability Experience Gains/(Losses)				(69,902)	(1,339)	68,563
Assumption Changes				(375,035)	(228,924)	146,111
Investment Gains/(Losses)				(435,255)	(850,293)	(415,038)
Contributions - Employer		283,169	(283,169)			
Contributions - Employees		250,604	(250,604)			(250,604)
Asset Gain/(Loss)		692,461 <sup>(1)</sup>	(692,461)	-	553,969	(138,492)
Benefit Payments and Refunds	(1,085,191)	(1,085,191)	-			
Administrative Expenses		(12,708)	12,708			12,708
Other changes <sup>(2)</sup>		21,448	(21,448)			(21,448)
<b>Net Changes</b>	<b>\$ 1,680,074</b>	<b>\$ 1,400,434</b>	<b>\$ 279,640</b>	<b>\$ (549,927)</b>	<b>\$ (526,587)</b>	<b>\$ 586,149</b>
<b>Balance End of Year</b>	<b>\$ 19,851,695</b>	<b>\$ 19,538,790</b>	<b>\$ 312,905</b>	<b>\$ 939,535</b>	<b>\$ 1,573,636</b>	

<sup>(1)</sup> The sum of these items in column (b) equals the net investment income of \$1,943,112.

<sup>(2)</sup> Includes \$(1,114) 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	
<b>Members on July 1, 2024</b>	<b>55,453</b>	<b>18,827</b>	<b>11,689</b>	<b>42,537</b>	<b>1,649</b>	<b>4,770</b>	<b>134,925</b>
New members	7,064						7,064
Return to active	445	(218)	(227)	0	0	0	0
Terminated non-vested	(2,044)	0	2,044	0	0	0	0
Service retirements	(1,092)	(695)	0	1,787	0	0	0
Unclassified retirements	0	0	0	36	0	0	36
Terminated deferred	(1,583)	1,583	0	0	0	0	0
Terminated refund/transfer	(547)	(315)	(1,889)	0	0	0	(2,751)
Deaths	(75)	(53)	(25)	(1,148)	(87)	(268)	(1,656)
New beneficiary	0	0	0	0	0	433	433
Disabled	(27)	0	0	0	27	0	0
Unexpected status change	0	302	474	70	29	(10)	865
Net change	2,141	604	377	745	(31)	155	3,991
<b>Members on June 30, 2025</b>	<b>57,594</b>	<b>19,431</b>	<b>12,066</b>	<b>43,282</b>	<b>1,618</b>	<b>4,925</b>	<b>138,916</b>

\* Includes members in the General and Military Affairs Plans.

\*\* Includes members in the General, Military Affairs and Unclassified Plans.

**SECTION E**

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**SUMMARY OF BENEFITS**

## Summary of Plan Provisions

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

Plan Year	July 1 through June 30.		
Eligibility	State employees, non-academic staff of the University of Minnesota and employees of certain Metro level government units, unless excluded by law.		
Contributions	Shown as a percent of salary:		
	<u>Effective as of</u>	<u>Member</u>	<u>Employer</u>
	July 1, 2023	5.50%	6.25%
	July 1, 2025	6.00%	6.25%
	Member contributions are “picked up” according to the provisions of Internal Revenue Code 414(h).		
Allowable Service	Service during which member contributions were made. May also include certain leaves of absence, military service and periods while temporary Worker's Compensation is paid. Excludes lump sum vacation and severance pay at termination.		
Average Salary	Average of the five highest successive years of Salary. Average Salary is based on all Allowable Service if less than five years.		
Salary	Includes wages, allowances and fees. Excludes lump sum payments at separation, employer contributions to deferred compensation and tax-sheltered annuity plans and benevolent vacation and sick leave donation programs.		
Retirement			
<u>Normal retirement benefit</u>			
Age/Service requirement	First hired before July 1, 1989: (a.) Age 65 and three years of Allowable Service. (b.) Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.  First hired after June 30, 1989: (a.) The greater of age 65 or the age eligible for full Social Security retirement benefits (but not higher than age 66) and three years of Allowable Service. (b.) Proportionate Retirement Annuity is available at normal retirement age and one year of Allowable Service.		
Amount	1.70% (1.90% for service earned after July 1, 2025) of Average Salary for each year of Allowable Service.		



## Summary of Plan Provisions (Continued)

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### Retirement (Continued)

#### Early retirement

##### **Age/Service requirement**

First hired before July 1, 1989:

- (a.) Age 55 and three years of Allowable Service.
- (b.) Any age with 30 years of Allowable Service.
- (c.) Rule of 90: Age plus Allowable Service totals 90.

First hired after June 30, 1989:

- (a.) Age 55 and three years of Allowable Service.

##### **Amount**

First hired before July 1, 1989:

The greater of (a) or (b):

- (a.) 1.20% of Average Salary for each of the first ten years of Allowable Service and 1.70% (1.90% for service earned after July 1, 2025) of Average Salary for each subsequent year with reduction of 0.25% for each month the member is under age 65 at time of retirement or under age 62 if 30 or more years of Allowable Service. No reduction if age plus years of Allowable Service totals 90.
- (b.) 1.70% (1.90% for service earned after July 1, 2025) of Average Salary for each year of Allowable Service, actuarially reduced for each month the member is under age 65.

First hired after June 30, 1989:

1.70% (1.90% for service earned after July 1, 2025) of Average Salary for each year of Allowable Service, actuarially reduced for each month the member is under the normal retirement age.

Prior to July 1, 2024, the early retirement adjustment included either full or partial augmentation. This augmentation adjustment was completely phased out by July 1, 2024.

##### **Form of payment**

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

- (a.) 50%, 75%, or 100% Joint and Survivor with bounce back feature without additional reduction.
  - (b.) 15-year Certain and Life.
-

## Summary of Plan Provisions (Continued)

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### Retirement (Continued)

#### Benefit increases

1.75% per year.

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

Prior to 2002, members who retired under the laws in effect before July 1, 1973, received an additional lump sum payment each year. In 1989, this lump sum payment was the greater of \$25 times each full year of Allowable Service or \$400 per full year of service less any Social Security benefits received or annuity from a Minnesota public employee pension plan. In each following year, the lump sum payment was increased by the same percentage increase that was applied to regular annuities paid from the Minnesota Post Retirement Investment Fund. Effective January 1, 2002, the annual lump sum payment was divided by 12 and paid as a monthly life annuity in the annuity form elected.

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### Disability

#### Disability benefit

##### **Age/Service requirement**

Total and permanent disability before normal retirement age with three years of Allowable Service.

##### **Amount**

Normal Retirement benefit based on Allowable Service and Average Salary at disability without reduction for commencement before normal retirement age.

Payments stop if disability ceases or death occurs. Payments revert to a retirement annuity at normal retirement age. Benefits may be reduced on resumption of partial employment.

#### Retirement after disability

##### **Age/Service requirement**

Normal retirement age with continued disability.

##### **Amount**

Any optional annuity continues. Otherwise, a normal retirement benefit equal to the disability benefit paid before normal retirement age, or an actuarially equivalent optional annuity.

#### Form of payment

Same as for retirement.

#### Benefit Increases

Same as for retirement.

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## Summary of Plan Provisions (Continued)

### Death

#### Surviving spouse optional benefit

<b>Age/Service requirement</b>	Member or former member who dies before retirement or disability benefits commence with three years of Allowable Service. If a former member dies before age 55 and has less than 30 years of Allowable Service, benefits commence when the former member would have been age 55. If an active member dies, benefits may commence immediately, regardless of age.
<b>Amount</b>	<p>Surviving spouse receives the 100% joint and survivor benefits 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 55 to the commencement age and the Rule of 90 does not apply. In lieu of this benefit, the surviving spouse may elect a refund of member contributions with interest or an actuarially equivalent term certain annuity.</p> <p>If a member dies prior to July 1, 1997, and the beneficiary was not eligible to commence a survivor benefit as of July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.</p>
<b>Benefit increases</b>	Same as for retirement.

#### Surviving dependent children's benefit

<b>Age/Service requirement</b>	If no surviving spouse, all children (biological or adopted) below age 20 who are dependent for more than half of their support on deceased member.
<b>Amount</b>	Actuarially equivalent 100% joint and survivor annuity to surviving spouse payable to the later of age 20 or five years. The amount is proportionally divided among surviving children.
<b>Benefit increases</b>	Same as for retirement.

#### Refund of contributions

<b>Age/Service requirement</b>	Active member dies and survivor benefits are not payable or a former member dies before annuity begins or former member who is not entitled to an annuity dies.
<b>Amount</b>	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.

## Summary of Plan Provisions (Continued)

### Death (Continued)

#### Refund of contributions

#### (Continued)

**Age/Service requirement** Retired or disabled annuitant who did not select an optional annuity dies, or the remaining recipient of an option dies.

**Amount** The excess of the member's contributions over all benefits paid.

### Unclassified Plan Provision

Eligible members credited with employee shares in the Unclassified Plan may elect to terminate participation in the Unclassified Plan and be covered by the State Employees Retirement Fund prior to termination of covered employment assuming that the member has acquired at least 10 years of allowable state service (no more than seven years of service if hired after June 30, 2010).

### Termination

#### Refund of contributions

**Age/Service requirement** Termination of state service.

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

#### Deferred benefit

**Age/Service requirement** Three years of Allowable Service

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

- (a.) 0.00% before July 1, 1971;
- (b.) 5.00% from July 1, 1971 to January 1, 1981;
- (c.) 3.00% thereafter (2.50% if hired after June 30, 2006) until January 1 of the year following attainment of age 55 or January 1, 2012, whichever is earlier;
- (d.) 5.00% thereafter until the annuity begins (2.50% if hired after June 30, 2006), but before January 1, 2012;
- (e.) 2.00% from January 1, 2012 through December 31, 2018; and
- (f.) 0.00% from January 1, 2019, thereafter.

Amount is payable at normal or early retirement.

Generally, members active with a public employer the day prior to the privatization of the employer become vested immediately and receive enhanced augmentation.

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

## Summary of Plan Provisions (Concluded)

<b>Combined Service Annuity</b>	<p>Members are eligible for combined service benefits if they:</p> <ul style="list-style-type: none"><li>(a.) Have sufficient allowable service in total that equals or exceeds the applicable service credit vesting requirement of the retirement plan with the longest applicable service credit vesting requirement;</li><li>(b.) Have at least six months of allowable service credit in each plan worked under; and</li><li>(c.) Are not in receipt of a benefit from another plan, or have applied for benefits with an effective date within one year.</li></ul> <p>Members who meet the above requirements must have their benefit based on the following:</p> <ul style="list-style-type: none"><li>(a.) Allowable service in all covered plans is combined in order to determine eligibility for early retirement.</li><li>(b.) Average salary is based on the high five consecutive years during their entire service in all covered plans.</li></ul>
<b>Actuarial Equivalent Factors</b>	<p>Actuarially equivalent factors based on Pub-2010 mortality for healthy annuitants turning 63 in 2026, reflecting projected mortality improvements using mortality improvement scale MP-2021 from a base year of 2010, with male rates multiplied by a factor of 1.04 and female rates multiplied by a factor of 1.10, blended 50% males and 50% females, 5.42% post-retirement interest, and 7.0% pre-retirement interest. Based upon statutory requirements; Joint and Survivor factors are based on an interest assumption of 6.50%. Early Retirement Factors will be phased in over three years, beginning July 1, 2024.</p>
<b>Changes in Plan Provisions</b>	<p>The benefit multiplier changed from 1.70% to 1.90% for service earned after July 1, 2025.</p> <p>The post-retirement benefit increase changed from 1.50% to 1.75% effective January 1, 2026.</p>

## SECTION F

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### ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

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

## Actuarial Cost Method

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

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

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

## Asset Valuation Method

Fair value of assets.

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

The following assumptions were used in valuing the liabilities and benefits under the plan. Unless otherwise noted, the assumptions are based on the last adopted experience study, dated June 29, 2023. The Allowance for Combined Service Annuity assumptions are based on an analysis completed by the LCPR actuary and documented in a report dated February 2025.

<b>Investment return</b>	7.00% per annum.
<b>Single Discount Rate</b>	7.00% per annum.
<b>Salary increases</b>	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.
<b>Inflation</b>	2.25% per year.
<b>Payroll growth</b>	3.00% per year.
<b>Mortality rates</b>	
<b>Healthy pre-retirement</b>	Pub-2010 General Employee Mortality Table adjusted for mortality improvements using mortality improvement scale MP-2021.
<b>Healthy post-retirement</b>	Pub-2010 General Healthy Retiree Mortality Table, adjusted for mortality improvements using mortality improvement scale MP-2021. Rates are multiplied by a factor of 1.04 for males and 1.10 for females.
<b>Disabled</b>	Pub-2010 General/Teacher Disabled Retiree Mortality Table, adjusted for mortality improvements using mortality improvement scale MP-2021. Rates are multiplied by a factor of 1.10 for males and 1.17 for females.
<b>Notes</b>	The Pub-2010 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 18 to 80 and the annuitant mortality table contains mortality rates for ages 50 to 120. We have extended the annuitant mortality table as needed for members younger than age 50 who are receiving a benefit by deriving rates based on the employee table and the juvenile table. Similarly, we have extended the employee table as needed for members older than age 80 by deriving rates based on the annuitant table.
<b>Retirement</b>	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.
<b>Withdrawal</b>	Service-related rates based on experience; see table of sample rates.

## Summary of Actuarial Assumptions (Continued)

<b>Disability</b>	Age-related rates based on experience; see table of sample rates.
<b>Allowance for combined service annuity</b>	Liabilities for former, vested members are increased by 9.00%, and liabilities for former, non-vested members are increased by 51.00% to account for the effect of some participants having eligibility for a Combined Service Annuity.
<b>Administrative expenses</b>	In the valuation year, equal to prior year administrative expenses expressed as a percent of prior year projected payroll. In each subsequent year, equal to the initial administrative expense percentage applied to payroll for the closed group.
<b>Refund of contributions</b>	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.
<b>Commencement of deferred benefits</b>	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at normal retirement age.
<b>Percentage married</b>	75% of active male members and 65% of female members are assumed to be married. Actual marital status is used for members in payment status.
<b>Age of spouse</b>	Male members are assumed to have a female beneficiary two years younger and female members are assumed to have a male beneficiary two years older.
<b>Form of payment</b>	<p>Married members retiring from active status are assumed to elect the subsidized Joint and Survivor form of annuity as follows:</p> <p>Males:      10% elect 50% Joint &amp; Survivor option                         15% elect 75% Joint &amp; Survivor option                         65% elect 100% Joint &amp; Survivor option</p> <p>Females:    20% elect 50% Joint &amp; Survivor option                         10% elect 75% Joint &amp; Survivor option                         45% elect 100% Joint &amp; Survivor option</p> <p>Remaining married members and unmarried members are assumed to elect the Straight Life option. Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a life annuity.</p>
<b>Eligibility testing</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Decrement operation</b>	Withdrawal decrements do not operate during retirement eligibility. Decrement are assumed to occur mid-fiscal year.
<b>Service credit accruals</b>	It is assumed that members accrue one year of service credit per year.
<b>Benefit service</b>	Exact fractional service is used to determine the amount of benefit payable.

## Summary of Actuarial Assumptions (Continued)

<b>Pay increases</b>	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.
<b>Final average salary</b>	For present value of future benefit purposes, final average salary was calculated in accordance with pay increase assumptions, but was not permitted to fall below the final average salary reported in the data.
<b>Unknown data for certain members</b>	<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 were applied:</p> <p><u>Data for active members:</u></p> <p>There were 134 members reported with zero or invalid salary (&lt;\$100). We used prior year salary (62 members), if available, otherwise, high five salary with a 10% load to account for salary increases (72 members). If neither pay or high five salary was available, we assumed a value of \$61,000 (0 members).</p> <p>There were 4 members reported with zero or negative service. Due to the small number of members with zero service, and based on direction from MSRS, we used service of 0 years for these members.</p> <p>There were 678 members reported with a gender of X or N and 0 members reported with an invalid date of birth. We assumed the member was hired at age 37 and female gender.</p> <p><u>Data for terminated members:</u></p> <p>There were 283 members reported with a missing or invalid benefit. If available, we calculated benefits for these members using the reported Average Salary, Credited Service and Termination Date provided. If Average Salary was not reported or invalid (211 members), we assumed a value of \$58,000. If termination date was not reported (4 members), we assumed the member terminated at age 40 (or current age if younger than 40). If credited service was either not reported or invalid (2 members), we assumed a value of 5.0 years.</p> <p>There were no members with a missing date of birth and 15 members with a gender of X or N. We assumed female gender for the valuation.</p> <p><u>Data for members receiving benefits:</u></p> <p>There were 117 members reported with a gender of X or N. We assumed female gender for retirees and male gender for survivors. No retired members were reported with an invalid date of birth.</p>



## Summary of Actuarial Assumptions (Continued)

<b>Unknown data for certain members (Concluded)</b>	<u>Data for members receiving benefits:</u>  There were 8 members reported without a benefit. Due to the small number of members with missing benefits, we made no adjustment to the reported data for members receiving benefits.  There were 23 survivor members reported with a certain and life option but with a certain end date prior to the valuation date. These members were excluded from the valuation.  There were 112 retirees reported with a survivor option and a survivor date of death. We assumed no benefit was payable to the survivor, and the member benefit already reflected the increase to the life annuity (i.e. bounce back) if applicable.  There were 147 retirees reported with a bounceback annuity but were not reported with a reasonable reduction factor. A factor of 0.80, 0.85 and 0.90 was assumed for the 100%, 75% and 50% joint and survivor annuity, respectively.  There were retired members reported with a survivor option and an invalid or missing survivor gender (2,725 members) and/or survivor date of birth (2,309 members). We used the valuation assumptions if the survivor gender or date of birth was missing or invalid.
<b>Changes in actuarial assumptions</b>	The combined service annuity load was changed from 4% to 9% for vested terminated members, and from 5% to 51% for non-vested terminated members.

## Summary of Actuarial Assumptions (Continued)

Age in 2025	Percent of Members Dying Each Year*					
	Healthy		Healthy		Disability	
	Post-Retirement Mortality**		Pre-Retirement Mortality**		Mortality**	
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.47%	0.30%
25	0.03%	0.01%	0.03%	0.01%	0.36%	0.24%
30	0.05%	0.02%	0.05%	0.02%	0.55%	0.42%
35	0.08%	0.04%	0.07%	0.03%	0.78%	0.67%
40	0.10%	0.05%	0.09%	0.04%	0.99%	0.89%
45	0.13%	0.07%	0.11%	0.05%	1.23%	1.13%
50	0.29%	0.22%	0.14%	0.07%	1.67%	1.56%
55	0.42%	0.30%	0.21%	0.12%	2.18%	1.96%
60	0.64%	0.43%	0.32%	0.19%	2.77%	2.32%
65	0.94%	0.63%	0.46%	0.28%	3.32%	2.48%
70	1.45%	1.01%	0.64%	0.42%	3.92%	2.88%
75	2.42%	1.77%	0.96%	0.69%	4.98%	4.01%
80	4.34%	3.29%	1.51%	1.18%	7.07%	6.26%
85	8.04%	6.31%	6.50%	4.93%	10.70%	10.09%
90	14.09%	11.91%	13.55%	10.83%	16.51%	15.08%

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

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

Age	Percent of Members Decrementing Each Year	
	Disability Retirement	
	Male	Female
20	0.01%	0.00%
25	0.01	0.00
30	0.01	0.00
35	0.01	0.01
40	0.03	0.02
45	0.05	0.05
50	0.11	0.11
55	0.16	0.17
60	0.23	0.25
65	0.00	0.00

## Summary of Actuarial Assumptions (Continued)

Age	Percent Retiring Each Year		
	Rule of 90 Eligible	Hired prior to 7/1/1989	Hired after 6/30/1989
55	15.0%	3.0%	3.5%
56	15.0	3.0	3.5
57	11.0	3.0	3.5
58	11.0	6.0	4.0
59	12.0	7.0	4.5
60	15.0	8.0	5.0
61	15.0	9.0	6.0
62	22.0	15.0	12.0
63	22.0	15.0	13.0
64	20.0	15.0	14.0
65	35.0	35.0	22.0
66	35.0	35.0	35.0
67	35.0	35.0	35.0
68	30.0	30.0	30.0
69	25.0	25.0	25.0
70	30.0	30.0	30.0
71+	100.0	100.0	100.0

## Summary of Actuarial Assumptions (Concluded)

Salary Scale		Percent of Members Terminating (Withdrawing) Each Year		
Year	Increase	Year	Males	Females
1	11.75%	1	20.00%	20.50%
2	7.50	2	15.00	16.50
3	5.65	3	10.50	12.50
4	5.50	4	8.25	9.75
5	5.20	5	7.00	9.00
6	5.00	6	6.50	8.00
7	4.80	7	5.50	7.50
8	4.60	8	4.50	6.25
9	4.50	9	4.25	5.25
10	4.30	10	3.75	4.75
11	4.20	11	3.50	4.50
12	4.10	12	3.25	4.25
13	4.00	13	3.00	4.00
14	3.90	14	2.50	3.75
15	3.70	15	2.40	3.25
16	3.60	16	2.30	3.25
17	3.50	17	2.20	3.00
18	3.40	18	2.10	2.75
19	3.40	19	2.00	2.50
20	3.40	20	1.75	2.50
21	3.30	21	1.75	2.50
22	3.20	22	1.75	2.50
23	3.20	23	1.75	2.25
24	3.20	24	1.50	1.75
25	3.20	25	1.50	1.75
26	3.20	26	1.25	1.75
27	3.00	27	1.00	1.50
28	3.00	28	1.00	1.50
29	3.00	29	1.00	1.00
30+	3.00	30+	1.00	1.00

## **SECTION G**

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### **CALCULATION OF THE SINGLE DISCOUNT RATE**

## Calculation of the Single Discount Rate

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

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

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

The tables in this section provide background for the development of the Single Discount Rate.

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

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

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

# Single Discount Rate Development

## Projection of Contributions (Dollars in Thousands)

Fiscal Year Ending	Projected Covered-Employee Payroll			Projected Contributions			
	Payroll for Current Employees	Payroll for New Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees	Contributions on Future Payroll toward Current UAL <sup>1</sup>	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(d) = (a) * 6.0%	(e) = (a) * 6.25%	(f)	(g) = (d) + (e) + (f)
2025	\$ 4,556,436		\$ 4,556,436				
2026	4,718,197	\$ 124,792	4,842,989	\$ 283,092	\$ 294,887	\$ 2,671	\$ 580,650
2027	4,483,912	504,366	4,988,278	269,035	280,245	10,793	560,073
2028	4,273,691	864,236	5,137,927	256,421	267,106	18,495	542,022
2029	4,112,464	1,179,600	5,292,064	246,748	257,029	25,243	529,020
2030	3,963,880	1,486,946	5,450,826	237,833	247,743	31,821	517,397
2031	3,825,020	1,789,331	5,614,351	229,501	239,064	38,292	506,857
2032	3,694,488	2,088,294	5,782,782	221,669	230,905	44,689	497,263
2033	3,569,544	2,386,721	5,956,265	214,173	223,097	51,076	488,346
2034	3,447,655	2,687,298	6,134,953	206,859	215,478	57,508	479,845
2035	3,326,859	2,992,143	6,319,002	199,612	207,929	64,032	471,573
2036	3,207,203	3,301,369	6,508,572	192,432	200,450	70,649	463,531
2037	3,089,745	3,614,084	6,703,829	185,385	193,109	77,341	455,835
2038	2,974,727	3,930,217	6,904,944	178,484	185,920	84,107	448,511
2039	2,861,495	4,250,597	7,112,092	171,690	178,843	90,963	441,496
2040	2,748,514	4,576,941	7,325,455	164,911	171,782	97,947	434,640
2041	2,634,116	4,911,102	7,545,218	158,047	164,632	105,098	427,777
2042	2,517,976	5,253,599	7,771,575	151,079	157,374	112,427	420,880
2043	2,400,614	5,604,108	8,004,722	144,037	150,038	119,928	414,003
2044	2,281,420	5,963,444	8,244,864	136,885	142,589	127,618	407,092
2045	2,159,103	6,333,107	8,492,210	129,546	134,944	135,528	400,018
2046	2,033,240	6,713,736	8,746,976	121,994	127,077	143,674	392,745
2047	1,904,777	7,104,608	9,009,385	114,287	119,049	152,039	385,375
2048	1,775,498	7,504,169	9,279,667	106,530	110,969	160,589	378,088
2049	1,646,197	7,911,860	9,558,057	98,772	102,887	169,314	370,973
2050	1,517,132	8,327,667	9,844,799	91,028	94,821	178,212	364,061
2051	1,389,401	8,750,742	10,140,143	83,364	86,838	187,266	357,468
2052	1,264,127	9,180,220	10,444,347	75,848	79,008	196,457	351,313
2053	1,142,635	9,615,042	10,757,677	68,558	71,415	205,762	345,735
2054	1,026,293	10,054,115	11,080,408	61,578	64,143	215,158	340,879
2055	915,771	10,497,049	11,412,820	54,946	57,236	224,637	336,819
2056	810,969	10,944,235	11,755,204	48,658	50,686	234,207	333,551
2057	711,753	11,396,107	12,107,860	42,705	44,485	243,877	331,067
2058	618,962	11,852,134	12,471,096	37,138	38,685	253,636	329,459
2059	532,931	12,312,298	12,845,229	31,976	33,308	263,483	328,767
2060	453,643	12,776,943	13,230,586	27,219	28,353	273,427	328,999
2061	380,901	13,246,603	13,627,504	22,854	23,806	283,477	330,137
2062	314,682	13,721,647	14,036,329	18,881	19,668	293,643	332,192
2063	255,339	14,202,080	14,457,419	15,320	15,959	303,925	335,204
2064	202,703	14,688,438	14,891,141	12,162	12,669	314,333	339,164
2065	156,988	15,180,887	15,337,875	9,419	9,812	324,871	344,102
2066	118,319	15,679,693	15,798,012	7,099	7,395	335,545	350,039
2067	86,368	16,185,584	16,271,952	5,182	5,398	346,371	356,951
2068	60,844	16,699,267	16,760,111	3,651	3,803	357,364	364,818
2069	41,403	17,221,511	17,262,914	2,484	2,588	368,540	373,612
2070	27,152	17,753,649	17,780,801	1,629	1,697	379,928	383,254
2071	17,093	18,297,132	18,314,225	1,026	1,068	391,559	393,653
2072	10,055	18,853,597	18,863,652	603	628	403,467	404,698
2073	5,371	19,424,191	19,429,562	322	336	415,678	416,336
2074	2,763	20,009,686	20,012,449	166	173	428,207	428,546
2075	1,376	20,611,446	20,612,822	83	86	441,085	441,254

<sup>1</sup>. Equal to total contributions (12.25% of payroll for new employees) net of normal cost and expenses (10.11% of payroll).

Totals may not add due to rounding.



# Single Discount Rate Development

## Projection of Contributions (Dollars in Thousands, Concluded)

Fiscal Year Ending	Projected Covered-Employee Payroll			Projected Contributions			
	Payroll for Current Employees	Payroll for New Employees	Total Employee Payroll	Employer		Contributions on	
				Contributions from Current Employees	Contributions for Current Employees	toward Current UAL <sup>1</sup>	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(d) = (a) * 6.0%	(e) = (a) * 6.25%	(f)	(g) = (d) + (e) + (f)
2076	\$ 624	\$ 21,230,583	\$ 21,231,207	\$ 37	\$ 39	\$ 454,334	\$ 454,410
2077	241	21,867,902	21,868,143	14	15	467,973	468,002
2078	82	22,524,105	22,524,187	5	5	482,016	482,026
2079	24	23,199,889	23,199,913	1	1	496,478	496,480
2080	4	23,895,906	23,895,910	-	-	511,372	511,372
2081	-	24,612,787	24,612,787	-	-	526,714	526,714
2082	-	25,351,171	25,351,171	-	-	542,515	542,515
2083	-	26,111,706	26,111,706	-	-	558,791	558,791
2084	-	26,895,057	26,895,057	-	-	575,554	575,554
2085	-	27,701,909	27,701,909	-	-	592,821	592,821
2086	-	28,532,966	28,532,966	-	-	610,605	610,605
2087	-	29,388,955	29,388,955	-	-	628,924	628,924
2088	-	30,270,624	30,270,624	-	-	647,791	647,791
2089	-	31,178,743	31,178,743	-	-	667,225	667,225
2090	-	32,114,105	32,114,105	-	-	687,242	687,242
2091	-	33,077,528	33,077,528	-	-	707,859	707,859
2092	-	34,069,854	34,069,854	-	-	729,095	729,095
2093	-	35,091,950	35,091,950	-	-	750,968	750,968
2094	-	36,144,708	36,144,708	-	-	773,497	773,497
2095	-	37,229,049	37,229,049	-	-	796,702	796,702
2096	-	38,345,921	38,345,921	-	-	820,603	820,603
2097	-	39,496,298	39,496,298	-	-	845,221	845,221
2098	-	40,681,187	40,681,187	-	-	870,577	870,577
2099	-	41,901,623	41,901,623	-	-	896,695	896,695
2100	-	43,158,672	43,158,672	-	-	923,596	923,596
2101	-	44,453,432	44,453,432	-	-	951,303	951,303
2102	-	45,787,035	45,787,035	-	-	979,843	979,843
2103	-	47,160,646	47,160,646	-	-	1,009,238	1,009,238
2104	-	48,575,465	48,575,465	-	-	1,039,515	1,039,515
2105	-	50,032,729	50,032,729	-	-	1,070,700	1,070,700
2106	-	51,533,711	51,533,711	-	-	1,102,821	1,102,821
2107	-	53,079,722	53,079,722	-	-	1,135,906	1,135,906
2108	-	54,672,114	54,672,114	-	-	1,169,983	1,169,983
2109	-	56,312,277	56,312,277	-	-	1,205,083	1,205,083
2110	-	58,001,646	58,001,646	-	-	1,241,235	1,241,235
2111	-	59,741,695	59,741,695	-	-	1,278,472	1,278,472
2112	-	61,533,946	61,533,946	-	-	1,316,826	1,316,826
2113	-	63,379,964	63,379,964	-	-	1,356,331	1,356,331
2114	-	65,281,363	65,281,363	-	-	1,397,021	1,397,021
2115	-	67,239,804	67,239,804	-	-	1,438,932	1,438,932
2116	-	69,256,998	69,256,998	-	-	1,482,100	1,482,100
2117	-	71,334,708	71,334,708	-	-	1,526,563	1,526,563
2118	-	73,474,750	73,474,750	-	-	1,572,360	1,572,360
2119	-	75,678,992	75,678,992	-	-	1,619,530	1,619,530
2120	-	77,949,362	77,949,362	-	-	1,668,116	1,668,116
2121	-	80,287,843	80,287,843	-	-	1,718,160	1,718,160
2122	-	82,696,478	82,696,478	-	-	1,769,705	1,769,705
2123	-	85,177,372	85,177,372	-	-	1,822,796	1,822,796
2124	-	87,732,693	87,732,693	-	-	1,877,480	1,877,480
2125	-	90,364,674	90,364,674	-	-	1,933,804	1,933,804

<sup>1</sup>. Equal to total contributions (12.25% of payroll for new employees) net of normal cost and expenses (10.11% of payroll).

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 Fiduciary Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.00%	Projected Ending Plan Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2026	\$ 19,538,790	\$ 580,650	\$ 1,130,824	\$ 14,155	\$ 1,348,298	\$ 20,322,759
2027	20,322,759	560,073	1,182,077	13,452	1,400,728	21,088,031
2028	21,088,031	542,022	1,235,352	12,821	1,451,865	21,833,744
2029	21,833,744	529,020	1,285,214	12,337	1,501,918	22,567,131
2030	22,567,131	517,397	1,333,291	11,892	1,551,217	23,290,560
2031	23,290,560	506,857	1,380,735	11,475	1,599,876	24,005,083
2032	24,005,083	497,263	1,427,330	11,083	1,647,973	24,711,907
2033	24,711,907	488,346	1,471,605	10,709	1,695,633	25,413,571
2034	25,413,571	479,845	1,514,118	10,343	1,743,007	26,111,962
2035	26,111,962	471,573	1,555,680	9,981	1,790,192	26,808,066
2036	26,808,066	463,531	1,596,881	9,622	1,837,237	27,502,332
2037	27,502,332	455,835	1,636,020	9,269	1,884,236	28,197,115
2038	28,197,115	448,511	1,672,383	8,924	1,931,380	28,895,698
2039	28,895,698	441,496	1,706,826	8,584	1,978,866	29,600,650
2040	29,600,650	434,640	1,739,415	8,246	2,026,867	30,314,496
2041	30,314,496	427,777	1,773,225	7,902	2,075,449	31,036,593
2042	31,036,593	420,880	1,807,130	7,554	2,124,603	31,767,392
2043	31,767,392	414,003	1,840,786	7,202	2,174,377	32,507,784
2044	32,507,784	407,092	1,874,620	6,844	2,224,815	33,258,226
2045	33,258,226	400,018	1,909,786	6,477	2,275,905	34,017,886
2046	34,017,886	392,745	1,947,061	6,100	2,327,561	34,785,032
2047	34,785,032	385,375	1,985,930	5,714	2,379,684	35,558,445
2048	35,558,445	378,088	2,025,608	5,326	2,432,220	36,337,818
2049	36,337,818	370,973	2,065,813	4,939	2,485,161	37,123,201
2050	37,123,201	364,061	2,106,687	4,551	2,538,507	37,914,531
2051	37,914,531	357,468	2,147,233	4,168	2,592,291	38,712,889
2052	38,712,889	351,313	2,187,446	3,792	2,646,594	39,519,556
2053	39,519,556	345,735	2,226,138	3,428	2,701,550	40,337,275
2054	40,337,275	340,879	2,262,327	3,079	2,757,390	41,170,138
2055	41,170,138	336,819	2,295,367	2,747	2,814,425	42,023,268
2056	42,023,268	333,551	2,325,555	2,433	2,873,004	42,901,834
2057	42,901,834	331,067	2,353,340	2,135	2,933,472	43,810,897
2058	43,810,897	329,459	2,377,344	1,857	2,996,235	44,757,390
2059	44,757,390	328,767	2,397,558	1,599	3,061,779	45,748,779
2060	45,748,779	328,999	2,413,877	1,361	3,130,631	46,793,171
2061	46,793,171	330,137	2,425,827	1,143	3,203,374	47,899,713
2062	47,899,713	332,192	2,433,262	944	3,280,654	49,078,352
2063	49,078,352	335,204	2,435,473	766	3,363,192	50,340,509
2064	50,340,509	339,164	2,431,867	608	3,451,809	51,699,007
2065	51,699,007	344,102	2,421,991	471	3,547,418	53,168,065
2066	53,168,065	350,039	2,404,615	355	3,651,058	54,764,193
2067	54,764,193	356,951	2,379,611	259	3,763,889	56,505,163
2068	56,505,163	364,818	2,346,151	183	3,887,181	58,410,829
2069	58,410,829	373,612	2,302,735	124	4,022,376	60,503,958
2070	60,503,958	383,254	2,250,649	81	4,171,021	62,807,503
2071	62,807,503	393,653	2,191,365	51	4,334,668	65,344,406
2072	65,344,406	404,698	2,125,951	30	4,514,882	68,138,006
2073	68,138,006	416,336	2,054,954	16	4,713,278	71,212,650
2074	71,212,650	428,546	1,978,867	8	4,931,542	74,593,862
2075	74,593,862	441,254	1,898,606	4	5,171,426	78,307,932

For purposes of this projection, we assumed the 6.25% regular employer statutory contribution rate would continue after the plan becomes fully funded.

Totals may not add due to rounding.



## Single Discount Rate Development

### Projection of Plan Fiduciary Net Position (Dollars in Thousands, Concluded)

Fiscal Year Ending	Projected Beginning Plan Net Fiduciary Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.00%	Projected Ending Plan Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2076	\$ 78,307,932	\$ 454,410	\$ 1,814,891	\$ 2	\$ 5,434,744	\$ 82,382,193
2077	82,382,193	468,002	1,728,256	1	5,723,391	86,845,330
2078	86,845,330	482,026	1,639,195	-	6,039,357	91,727,518
2079	91,727,518	496,480	1,548,242	-	6,384,737	97,060,494
2080	97,060,494	511,372	1,455,945	-	6,761,734	102,877,655
2081	102,877,655	526,714	1,362,866	-	7,172,665	109,214,168
2082	109,214,168	542,515	1,269,588	-	7,619,975	116,107,070
2083	116,107,070	558,791	1,176,701	-	8,106,234	123,595,393
2084	123,595,393	575,554	1,084,790	-	8,634,156	131,720,313
2085	131,720,313	592,821	994,425	-	9,206,603	140,525,312
2086	140,525,312	610,605	906,152	-	9,826,603	150,056,369
2087	150,056,369	628,924	820,483	-	10,497,355	160,362,164
2088	160,362,164	647,791	737,897	-	11,222,251	171,494,310
2089	171,494,310	667,225	658,833	-	12,004,890	183,507,592
2090	183,507,592	687,242	583,691	-	12,849,094	196,460,237
2091	196,460,237	707,859	512,824	-	13,758,927	210,414,199
2092	210,414,199	729,095	446,542	-	14,738,716	225,435,468
2093	225,435,468	750,968	385,101	-	15,793,072	241,594,406
2094	241,594,406	773,497	328,699	-	16,926,913	258,966,118
2095	258,966,118	796,702	277,467	-	18,145,494	277,630,846
2096	277,630,846	820,603	231,464	-	19,454,430	297,674,415
2097	297,674,415	845,221	190,667	-	20,859,731	319,188,700
2098	319,188,700	870,577	154,968	-	22,367,832	342,272,141
2099	342,272,141	896,695	124,177	-	23,985,631	367,030,289
2100	367,030,289	923,596	98,015	-	25,720,527	393,576,396
2101	393,576,396	951,303	76,152	-	27,580,460	422,032,008
2102	422,032,008	979,843	58,195	-	29,573,953	452,527,608
2103	452,527,608	1,009,238	43,712	-	31,710,154	485,203,289
2104	485,203,289	1,039,515	32,254	-	33,998,888	520,209,438
2105	520,209,438	1,070,700	23,372	-	36,450,697	557,707,464
2106	557,707,464	1,102,821	16,631	-	39,076,896	597,870,551
2107	597,870,551	1,135,906	11,627	-	41,889,623	640,884,453
2108	640,884,453	1,169,983	7,996	-	44,901,893	686,948,334
2109	686,948,334	1,205,083	5,422	-	48,127,661	736,275,656
2110	736,275,656	1,241,235	3,640	-	51,581,879	789,095,130
2111	789,095,130	1,278,472	2,436	-	55,280,565	845,651,731
2112	845,651,731	1,316,826	1,639	-	59,240,874	906,207,792
2113	906,207,792	1,356,331	1,124	-	63,481,176	971,044,175
2114	971,044,175	1,397,021	794	-	68,021,134	1,040,461,536
2115	1,040,461,536	1,438,932	585	-	72,881,798	1,114,781,681
2116	1,114,781,681	1,482,100	451	-	78,085,698	1,194,349,029
2117	1,194,349,029	1,526,563	361	-	83,656,946	1,279,532,176
2118	1,279,532,176	1,572,360	298	-	89,621,344	1,370,725,581
2119	1,370,725,581	1,619,530	250	-	96,006,507	1,468,351,368
2120	1,468,351,368	1,668,116	211	-	102,841,985	1,572,861,259
2121	1,572,861,259	1,718,160	177	-	110,159,401	1,684,738,642
2122	1,684,738,642	1,769,705	147	-	117,992,592	1,804,500,791
2123	1,804,500,791	1,822,796	120	-	126,377,770	1,932,701,237
2124	1,932,701,237	1,877,480	97	-	135,353,684	2,069,932,303
2125	2,069,932,303	1,933,804	233	-	144,961,792	2,216,827,666

For purposes of this projection, we assumed the 6.25% statutory regular employer statutory contribution rate would continue after the plan becomes fully funded.

Totals may not add due to rounding.



# Single Discount Rate Development

## Present Values of Projected Benefits (Dollars in Thousands)

Fiscal Year Ending	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/((1+sdr)^(a-.5))
2026	\$ 19,538,790	\$ 1,130,824	\$ 1,130,824	\$ -	\$ 1,093,209	\$ -	\$ 1,093,209
2027	20,322,759	1,182,077	1,182,077	-	1,067,998	-	1,067,998
2028	21,088,031	1,235,352	1,235,352	-	1,043,113	-	1,043,113
2029	21,833,744	1,285,214	1,285,214	-	1,014,220	-	1,014,220
2030	22,567,131	1,333,291	1,333,291	-	983,327	-	983,327
2031	23,290,560	1,380,735	1,380,735	-	951,699	-	951,699
2032	24,005,083	1,427,330	1,427,330	-	919,454	-	919,454
2033	24,711,907	1,471,605	1,471,605	-	885,958	-	885,958
2034	25,413,571	1,514,118	1,514,118	-	851,918	-	851,918
2035	26,111,962	1,555,680	1,555,680	-	818,040	-	818,040
2036	26,808,066	1,596,881	1,596,881	-	784,771	-	784,771
2037	27,502,332	1,636,020	1,636,020	-	751,407	-	751,407
2038	28,197,115	1,672,383	1,672,383	-	717,858	-	717,858
2039	28,895,698	1,706,826	1,706,826	-	684,712	-	684,712
2040	29,600,650	1,739,415	1,739,415	-	652,136	-	652,136
2041	30,314,496	1,773,225	1,773,225	-	621,320	-	621,320
2042	31,036,593	1,807,130	1,807,130	-	591,776	-	591,776
2043	31,767,392	1,840,786	1,840,786	-	563,361	-	563,361
2044	32,507,784	1,874,620	1,874,620	-	536,184	-	536,184
2045	33,258,226	1,909,786	1,909,786	-	510,506	-	510,506
2046	34,017,886	1,947,061	1,947,061	-	486,421	-	486,421
2047	34,785,032	1,985,930	1,985,930	-	463,674	-	463,674
2048	35,558,445	2,025,608	2,025,608	-	441,998	-	441,998
2049	36,337,818	2,065,813	2,065,813	-	421,281	-	421,281
2050	37,123,201	2,106,687	2,106,687	-	401,511	-	401,511
2051	37,914,531	2,147,233	2,147,233	-	382,466	-	382,466
2052	38,712,889	2,187,446	2,187,446	-	364,139	-	364,139
2053	39,519,556	2,226,138	2,226,138	-	346,336	-	346,336
2054	40,337,275	2,262,327	2,262,327	-	328,941	-	328,941
2055	41,170,138	2,295,367	2,295,367	-	311,911	-	311,911
2056	42,023,268	2,325,555	2,325,555	-	295,339	-	295,339
2057	42,901,834	2,353,340	2,353,340	-	279,316	-	279,316
2058	43,810,897	2,377,344	2,377,344	-	263,706	-	263,706
2059	44,757,390	2,397,558	2,397,558	-	248,549	-	248,549
2060	45,748,779	2,413,877	2,413,877	-	233,870	-	233,870
2061	46,793,171	2,425,827	2,425,827	-	219,652	-	219,652
2062	47,899,713	2,433,262	2,433,262	-	205,912	-	205,912
2063	49,078,352	2,435,473	2,435,473	-	192,616	-	192,616
2064	50,340,509	2,431,867	2,431,867	-	179,748	-	179,748
2065	51,699,007	2,421,991	2,421,991	-	167,307	-	167,307
2066	53,168,065	2,404,615	2,404,615	-	155,240	-	155,240
2067	54,764,193	2,379,611	2,379,611	-	143,575	-	143,575
2068	56,505,163	2,346,151	2,346,151	-	132,296	-	132,296
2069	58,410,829	2,302,735	2,302,735	-	121,353	-	121,353
2070	60,503,958	2,250,649	2,250,649	-	110,848	-	110,848
2071	62,807,503	2,191,365	2,191,365	-	100,868	-	100,868
2072	65,344,406	2,125,951	2,125,951	-	91,455	-	91,455
2073	68,138,006	2,054,954	2,054,954	-	82,618	-	82,618
2074	71,212,650	1,978,867	1,978,867	-	74,354	-	74,354
2075	74,593,862	1,898,606	1,898,606	-	66,671	-	66,671

Totals may not add due to rounding.



# Single Discount Rate Development

## Present Values of Projected Benefits (Dollars in Thousands, Concluded)

Fiscal Year Ending	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf^((a)-.5)	(h)=(c)/(1+sdr)^((a)-.5)
2076	\$ 78,307,932	\$ 1,814,891	\$ 1,814,891	\$ -	\$ 59,562	\$ -	\$ 59,562
2077	82,382,193	1,728,256	1,728,256	-	53,008	-	53,008
2078	86,845,330	1,639,195	1,639,195	-	46,987	-	46,987
2079	91,727,518	1,548,242	1,548,242	-	41,477	-	41,477
2080	97,060,494	1,455,945	1,455,945	-	36,453	-	36,453
2081	102,877,655	1,362,866	1,362,866	-	31,890	-	31,890
2082	109,214,168	1,269,588	1,269,588	-	27,764	-	27,764
2083	116,107,070	1,176,701	1,176,701	-	24,049	-	24,049
2084	123,595,393	1,084,790	1,084,790	-	20,720	-	20,720
2085	131,720,313	994,425	994,425	-	17,752	-	17,752
2086	140,525,312	906,152	906,152	-	15,118	-	15,118
2087	150,056,369	820,483	820,483	-	12,793	-	12,793
2088	160,362,164	737,897	737,897	-	10,753	-	10,753
2089	171,494,310	658,833	658,833	-	8,972	-	8,972
2090	183,507,592	583,691	583,691	-	7,429	-	7,429
2091	196,460,237	512,824	512,824	-	6,100	-	6,100
2092	210,414,199	446,542	446,542	-	4,964	-	4,964
2093	225,435,468	385,101	385,101	-	4,001	-	4,001
2094	241,594,406	328,699	328,699	-	3,192	-	3,192
2095	258,966,118	277,467	277,467	-	2,518	-	2,518
2096	277,630,846	231,464	231,464	-	1,963	-	1,963
2097	297,674,415	190,667	190,667	-	1,511	-	1,511
2098	319,188,700	154,968	154,968	-	1,148	-	1,148
2099	342,272,141	124,177	124,177	-	860	-	860
2100	367,030,289	98,015	98,015	-	634	-	634
2101	393,576,396	76,152	76,152	-	460	-	460
2102	422,032,008	58,195	58,195	-	329	-	329
2103	452,527,608	43,712	43,712	-	231	-	231
2104	485,203,289	32,254	32,254	-	159	-	159
2105	520,209,438	23,372	23,372	-	108	-	108
2106	557,707,464	16,631	16,631	-	72	-	72
2107	597,870,551	11,627	11,627	-	47	-	47
2108	640,884,453	7,996	7,996	-	30	-	30
2109	686,948,334	5,422	5,422	-	19	-	19
2110	736,275,656	3,640	3,640	-	12	-	12
2111	789,095,130	2,436	2,436	-	7	-	7
2112	845,651,731	1,639	1,639	-	5	-	5
2113	906,207,792	1,124	1,124	-	3	-	3
2114	971,044,175	794	794	-	2	-	2
2115	1,040,461,536	585	585	-	1	-	1
2116	1,114,781,681	451	451	-	1	-	1
2117	1,194,349,029	361	361	-	1	-	1
2118	1,279,532,176	298	298	-	1	-	1
2119	1,370,725,581	250	250	-	-	-	-
2120	1,468,351,368	211	211	-	-	-	-
2121	1,572,861,259	177	177	-	-	-	-
2122	1,684,738,642	147	147	-	-	-	-
2123	1,804,500,791	120	120	-	-	-	-
2124	1,932,701,237	97	97	-	-	-	-
2125	2,069,932,303	233	233	-	-	-	-
<b>Totals</b>					<b>\$ 23,800,043</b>	<b>\$ -</b>	<b>\$ 23,800,043</b>

Totals may not add due to rounding.



## SECTION H

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### GLOSSARY OF TERMS

## Glossary of Terms

<b><i>Accrued Service</i></b>	Service credited under the system which was rendered before the date of the actuarial valuation.
<b><i>Actuarial Accrued Liability (AAL)</i></b>	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.”
<b><i>Actuarial Assumptions</i></b>	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.
<b><i>Actuarial Cost Method</i></b>	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.
<b><i>Actuarial Equivalent</i></b>	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.
<b><i>Actuarial Gain (Loss)</i></b>	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.
<b><i>Actuarial Present Value (APV)</i></b>	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.
<b><i>Actuarial Valuation</i></b>	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.
<b><i>Actuarial Valuation Date</i></b>	The date as of which an actuarial valuation is performed.
<b><i>Actuarially Determined Contribution (ADC)</i></b>	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

<b><i>Amortization Method</i></b>	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).
<b><i>Amortization Payment</i></b>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<b><i>Cost-of-Living Adjustments</i></b>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<b><i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i></b>	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.
<b><i>Covered-Employee Payroll</i></b>	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.
<b><i>Deferred Inflows and Outflows of Resources</i></b>	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.
<b><i>Discount Rate or Single Discount Rate</i></b>	<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"><li>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 and;</li><li>2) The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.</li></ol>
<b><i>Entry Age Actuarial Cost Method or Entry Age Normal (EAN)</i></b>	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

<b><i>Fiduciary Net Position</i></b>	The fiduciary net position is the value of the net assets of the trust restricted for pension benefits.
<b><i>GASB</i></b>	The Governmental Accounting Standards Board is an organization that exists with authority to promulgate accounting standards for state and local governmental entities.
<b><i>Long-Term Expected Rate of Return</i></b>	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.
<b><i>Money-Weighted Rate of Return</i></b>	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.
<b><i>Multiple-Employer Defined Benefit Pension Plan</i></b>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<b><i>Municipal Bond Rate</i></b>	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.
<b><i>Net Pension Liability (NPL)</i></b>	The NPL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.
<b><i>Non-Employer Contributing Entities</i></b>	Non-employer contributing 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 contributing entities.
<b><i>Normal Cost</i></b>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
<b><i>Other Postemployment Benefits (OPEB)</i></b>	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.
<b><i>Real Rate of Return</i></b>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<b><i>Service Cost</i></b>	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 experience in measurement of the Total Pension Liability
9. Recognition of Outflow (Inflow) of Resources due to assumption changes
10. Recognition of Outflow (Inflow) of Resources due to the difference between projected and actual earnings on pension plan investments

### ***Total Pension Liability (TPL)***

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

### ***Unfunded Actuarial Accrued Liability (UAAL)***

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

### ***Valuation Assets***

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