

City of Manchester Employees' Contributory Retirement System

GASB Statement Nos. 67 and 68 Accounting and
Financial Reporting for Pensions

Measured as of December 31, 2024

for Fiscal Year Ending June 30, 2025





April 30, 2025

Board of Trustees
City of Manchester Employees'
Contributory Retirement System
Manchester, New Hampshire

Dear Board Members:

The purpose of this report is to provide the accounting and financial reporting information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 for the City of Manchester Employees' Contributory Retirement System (MECRS). These calculations have been made on a basis that is consistent with our understanding of these accounting standards. This report should not be relied upon for any other purpose than described herein.

GASB Statement Nos. 67 and 68 are the accounting standards that apply to the stand-alone financial reports issued by retirement systems. This information is presented in draft form for review by the City's auditor. Please let us know if there are items that the auditor changes so that we may maintain consistency with the City's financial statements.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of assisting in the reporting and disclosure information that satisfies certain requirements of GASB Statement Nos. 67 and 68. The Net Pension Liability is not an appropriate measure for determining 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 City's liability for this report may not be applicable for funding purposes of the Retirement System. A calculation of the City's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. GASB Statement Nos. 67 and 68 cover pension benefits provided by the Retirement System. The Retirement System also provides post-retirement health benefits through a Section 401(h) sub-trust. The assets and liabilities of the sub-trust have not been included in this report. Please refer to the actuarial valuation for information concerning the liabilities and assets of the sub-trust.

This report may be provided to parties other than the City of Manchester Employees' Contributory Retirement System and the Board of Trustees only in its entirety and only with the permission of the Board. Authorized or unauthorized use of this report does not create a liability between GRS and the other party. GRS is not responsible for unauthorized use of this report.

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

This report is based upon information, furnished to us by the Retirement System, 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 was not audited. We are not responsible for the accuracy or completeness of such information.

This report complements the actuarial valuation report provided to the City of Manchester Employees' Contributory Retirement System and should be considered collectively as a combined report for the measurement period ending December 31, 2024. Please refer to the December 31, 2024 actuarial valuation report 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 City of Manchester Employees' Contributory Retirement System for the purposes of GASB Statements Nos. 67 and 68 reporting. 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.

Heidi G. Barry and Kevin T. Noelke are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsors.

This communication shall not be construed to provide tax advice, legal advice, accounting advice, or investment advice.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Heidi G. Barry, ASA, FCA, MAAA



Kevin T. Noelke, ASA, FCA, MAAA

HGB/KTN:ah



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SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2024

Actuarial Valuation Date	December 31, 2024
Measurement Date of the Net Pension Liability	December 31, 2024
Employer's Fiscal Year Ending Date (Reporting Date)	June 30, 2025

Membership

Number of	
- Retirees and Beneficiaries	1,112
- Inactive, Nonretired Members	134
- Active Members	1,183
- Total	2,429
Covered Payroll #	\$ 67,129,760

Net Pension Liability

Total Pension Liability	\$ 475,228,589
Plan Fiduciary Net Position	298,677,572
Net Pension Liability	\$ 176,551,017
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	62.85%
Net Pension Liability as a Percentage of Covered Payroll	263.00%

Development of the Single Discount Rate

Single Discount Rate	6.75%
Long-Term Expected Rate of Investment Return	6.75%
Long-Term Municipal Bond Rate*	4.08%
Last year ending December 31 in the 2025 to 2124 projection period for which projected benefit payments are fully funded	2124

Total Pension Expense	\$ 29,088,984
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Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 7,240,394	\$ -
Changes in assumptions	828,442	-
Net difference between projected and actual earnings on pension plan investments	23,062,896	18,893,109
Total	\$ 31,131,732	\$ 18,893,109

Based on valuation payroll as of December 31, 2024.

* Source: "20-Bond GO Index" is the Bond Buyer Index, general obligation, 20 years to maturity, mixed quality. In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA. The rate shown is as of December 26, 2024, the most recent Thursday update available on or before the measurement date.



Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 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 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.

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 or local governments 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 MECRS subsequent to the measurement date of December 31, 2024.

The pension expense recognized each fiscal year is equal to the change in the Net Pension Liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

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



Discussion

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 additional information. The list of disclosure items should include:

- A description of benefits provided by the plan;
- The type 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 used to calculate the Total Pension Liability and Net Pension Liability for financial reporting purposes;
- Significant assumptions and methods used to calculate the Total Pension Liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

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

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

Required Supplementary Information

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

- Sources of changes in the Net Pension Liability;
- Information about the components of the Net Pension Liability and related ratios, including the pension plan's Fiduciary Net Position as a percentage of the Total Pension Liability, and the Net Pension Liability as a percent of covered-employee payroll; and
- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.



Discussion

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 all actuarial assumptions are met (including the assumption of the plan earning 6.75% on the actuarial value of assets), then the following outcomes are expected:

1. The employer normal cost as a percentage of pay is expected to remain level as a percentage of payroll.
2. The unfunded liability is expected to be paid off in approximately 15 years, which is the number of years remaining in the closed amortization schedule of the unfunded liability.
3. The funded status of the plan is expected to reach a 100% funded ratio in approximately 15 years, which is the number of years remaining in the closed amortization schedule of the unfunded liability.

This funding policy results in the expectation that the plan's assets will be able to fully pay for promised benefits through at least 2124. 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.

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 December 31, 2024 and a measurement date of December 31, 2024.

Single Discount Rate

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

For the purpose of this valuation, the expected rate of return on pension plan investments is 6.75%; the municipal bond rate is 4.08% (based on the daily rate closest to but not later than the measurement date of the Bond Buyer "20-Bond GO Index"); and the resulting Single Discount Rate is 6.75%.



Discussion

Assumption Changes

There were no assumption changes during the year.

Benefit Changes

There were no benefit changes during the year.

SECTION B

FINANCIAL STATEMENTS

Statement of Pension Expense under GASB Statement No. 68 for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

A. Expense

1. Service Cost	\$	8,431,498
2. Interest on the Total Pension Liability		30,426,357
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		(2,716,614)
5. Projected Earnings on Plan Investments (made negative for addition here)		(18,382,464)
6. Pension Plan Administrative Expense		826,875
7. Other Changes in Plan Fiduciary Net Position		-
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		9,392,497
9. Recognition of Outflow (Inflow) of Resources due to Assets		1,110,835
10. Total Pension Expense	\$	29,088,984

Statement of Outflows and Inflows Arising from Current Reporting Period for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

A. Outflows (Inflows) of Resources Due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 3,096,214
2. Assumption Changes (gains) or losses	\$ -
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	4.6683
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	\$ 663,242
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$ -
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	<u>\$ 663,242</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	\$ 2,432,972
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$ -
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	<u>\$ 2,432,972</u>

B. Outflows (Inflows) of Resources Due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (9,222,502)
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	\$ (1,844,500)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (7,378,002)



Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	\$ 9,392,497	\$ -	\$ 9,392,497
2. Due to Assets	11,531,448	10,420,613	1,110,835
3. Total	\$ 20,923,945	\$ 10,420,613	\$ 10,503,332

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 3,366,869	\$ -	\$ 3,366,869
2. Assumption Changes	6,025,628	-	6,025,628
3. Net Difference between projected and actual earnings on pension plan investments	11,531,448	10,420,613	1,110,835
4. Total	\$ 20,923,945	\$ 10,420,613	\$ 10,503,332

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

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	\$ 7,240,394	\$ -	\$ 7,240,394
2. Assumption Changes	828,442	-	828,442
3. Net Difference between projected and actual earnings on pension plan investments	23,062,896	18,893,109	4,169,787
4. Total	\$ 31,131,732	\$ 18,893,109	\$ 12,238,623

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

Year Ending December 31	Net Deferred Outflows of Resources
2025	\$ 7,096,545
2026	9,536,077
2027	(2,992,743)
2028	(1,401,256)
2029	-
Thereafter	-
Total	\$ 12,238,623

Recognition of Deferred Outflows and Inflows of Resources

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) Due to Differences Between Expected and Actual Experience on Liabilities					
2019	\$ 3,974,876	5.1435	\$ 110,896	\$ -	0.0000
2020	2,625,836	4.9787	516,180	-	0.0000
2021	781,152	4.8674	160,487	139,204	0.8674
2022	1,617,855	4.6947	344,613	584,016	1.6947
2023	7,227,104	4.5990	1,571,451	4,084,202	2.5990
2024	3,096,214	4.6683	663,242	2,432,972	3.6683
Total			\$ 3,366,869	\$ 7,240,394	
Deferred Outflow (Inflow) Due to Assumption Changes					
2019	\$ -	5.1435	\$ -	\$ -	0.0000
2020	29,031,182	4.9787	5,706,874	-	0.0000
2021	-	4.8674	-	-	0.8674
2022	-	4.6947	-	-	1.6947
2023	1,465,950	4.5990	318,754	828,442	2.5990
2024	-	4.6683	-	-	3.6683
Total			\$ 6,025,628	\$ 828,442	
Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments					
2020	\$ (14,742,222)	5.0000	\$ (2,948,446)	\$ -	0.0000
2021	(13,419,730)	5.0000	(2,683,946)	(2,683,946)	1.0000
2022	57,657,240	5.0000	11,531,448	23,062,896	2.0000
2023	(14,718,603)	5.0000	(2,943,721)	(8,831,161)	3.0000
2024	(9,222,502)	5.0000	(1,844,500)	(7,378,002)	4.0000
Total			\$ 1,110,835	\$ 4,169,787	

According to paragraph 33 of GASB Statement No. 68, 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 pensions 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 10,891 years. Additionally, the total plan membership (active employees and inactive employees) was 2,333. 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 4.6683 years.

Additionally, differences between projected and actual earnings on pension 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 Fiduciary Net Position as of December 31, 2024

Assets

Cash and Deposits	\$ 9,326,835
Receivables	
Accounts Receivable	\$ 455,433
Accrued Interest and Other Dividends	28,423
Additional Contribution Account	-
Property, Plant, Equipment	2,652
Total Receivables	<u>\$ 486,508</u>
Investments	\$ 315,445,704
Total Assets	<u>\$ 325,259,047</u>

Liabilities

Payables	
Accounts Payable and Accrued Expenses	\$ 173,199
Payable for Investments Purchased	-
Benefits Payable	<u>2,222,288</u>
Total Liabilities	\$ 2,395,487
Assets held for 401(h) Subtrust	<u>\$ 24,185,988</u>
Net Position Restricted for Pensions	<u>\$ 298,677,572</u>

Statement of Changes in Fiduciary Net Position for Year Ended December 31, 2024

Additions

Contributions

Employer	\$ 22,131,039
Employee (Including Additional Contributions, Buybacks, Upgrades and Enrollments)	2,716,614
Total Contributions	<u>\$ 24,847,653</u>
Other	\$ -

Investment Income

Net Appreciation in Fair Value of Investments	\$ 25,635,924
Interest and Dividends	2,746,925
Less Investment Expense	<u>(777,883)</u>
Net Investment Income	<u>\$ 27,604,966</u>

Total Additions	<u>\$ 52,452,619</u>
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Deductions

Benefit Payments, Additional Contribution Payments, and Refunds of Employee Contributions	\$ 26,541,153
Pension Plan Administrative Expense	<u>826,875</u>
Total Deductions	\$ 27,368,028

Net Increase in Net Position	\$ 25,084,591
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Net Position Restricted for Pensions

Beginning of Year	\$ 273,592,981
Prior Year Adjustment	<u>-</u>
End of Year	<u><u>\$ 298,677,572</u></u>

Schedule of Proportionate Employer Share for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

Deferred Outflows of Resources									
Covered Payroll	Employer	Prop. Share	Net Pension Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments*	Changes of Assum.	Changes in Proportion and Differences Between Employer Cont. and Share of Cont.	Total Deferred Outflows of Resources	
\$ 5,952,541	Airport	8.87%	\$ 15,660,075	\$ 642,223	\$ 369,861	\$ 73,483	\$ 231,509	\$ 1,317,076	
562,387	Parking Control	0.84%	1,483,029	60,819	35,026	6,959	143,719	246,523	
2,785,250	Environmental Protection	4.15%	7,326,867	300,476	173,046	34,380	61,509	569,411	
14,455,651	School District	21.53%	38,011,434	1,558,857	897,755	178,364	3,589,138	6,224,114	
6,219,536	Water Works	9.26%	16,348,624	670,460	386,122	76,714	114,729	1,248,025	
37,154,395	General Fund City Departments	55.35%	97,720,988	4,007,559	2,307,977	458,542	-	6,774,078	
\$ 67,129,760	Total for All Employers	100.00%	\$ 176,551,017	\$ 7,240,394	\$ 4,169,787	\$ 828,442	\$ 4,140,604	\$ 16,379,227	

* We understand that the recommendation of the American Institute of Certified Public Accountants (AICPA) is for the deferred inflows resulting from the net difference between projected and actual investment earnings on pension plan investments to be shown net of the respective outflows resulting from this difference. Beginning in the 2019 report, only the net amount is shown.



**Schedule of Proportionate Employer Share
for Fiscal Year Ending June 30, 2025
with Measurement Date December 31, 2024
(Concluded)**

Employer	Deferred Inflows of Resources				Pension Expense		
	Differences Between Expected and Actual Experience	Changes of Assum.	Changes in Proportion and Differences Between Employer Cont. and Share of Cont.	Total Deferred Inflows of Resources	Prop. Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
Airport	\$ -	\$ -	\$ 874,211	\$ 874,211	\$ 2,580,193	\$ (141,852)	\$ 2,438,341
Parking Control	-	-	252,982	252,982	244,347	(39,775)	204,572
Environmental Protection	-	-	478,976	478,976	1,207,193	1,673	1,208,866
School District	-	-	-	-	6,262,858	770,585	7,033,443
Water Works	-	-	498,041	498,041	2,693,640	120,029	2,813,669
General Fund City Departments	-	-	2,036,394	2,036,394	16,100,753	(710,660)	15,390,093
Total for All Employers	\$ -	\$ -	\$ 4,140,604	\$ 4,140,604	\$ 29,088,984	\$ -	\$ 29,088,984

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability and Related Ratios

Current Period

for Fiscal Year Ending June 30, 2025

with Measurement Date December 31, 2024

A. Total Pension Liability		
1. Service cost	\$	8,431,498
2. Interest on the Total Pension Liability		30,426,357
3. Changes of benefit terms		-
4. Difference between expected and actual experience of the Total Pension Liability		3,096,214
5. Changes of assumptions		-
6. Benefit payments, including refunds of employee contributions		(26,541,153)
7. Net change in Total Pension Liability		15,412,916
8. Total Pension Liability – Beginning		459,815,673
9. Total Pension Liability – Ending		475,228,589
B. Plan Fiduciary Net Position		
1. Contributions – Employer		22,131,039
2. Contributions – Employee		2,716,614
3. Net investment income		27,604,966
4. Benefit payments, including refunds of employee contributions		(26,541,153)
5. Pension plan administrative expense		(826,875)
6. Other		-
7. Net change in Plan Fiduciary Net Position		25,084,591
8. Plan Fiduciary Net Position – Beginning		273,592,981
9. Plan Fiduciary Net Position – Ending		298,677,572
C. Net Pension Liability		176,551,017
D. Plan Fiduciary Net Position as a percentage of the Total Pension Liability		62.85%
E. Covered-Employee Payroll	\$	67,129,760
F. Net Pension Liability as a percentage of Covered-Employee Payroll		263.00%

Schedules of Required Supplementary Information

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

Measurement Period Ending December 31,	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability										
Service Cost	\$ 8,431,498	\$ 7,822,395	\$ 7,086,981	\$ 6,793,736	\$ 6,467,132	\$ 6,188,578	\$ 6,361,053	\$ 6,341,280	\$ 6,327,991	\$ 6,468,648
Interest on the Total Pension Liability	30,426,357	29,077,152	28,215,371	27,407,254	25,471,822	24,447,847	23,689,732	22,956,480	22,438,990	21,231,157
Benefit Changes: Buybacks and COLA	-	-	-	-	-	-	-	-	-	-
Experience	3,096,214	7,227,104	1,617,855	781,152	2,625,836	3,974,876	(172,714)	201,281	(5,201,876)	4,528,433
Assumption Changes	-	1,465,950	-	-	29,031,182	-	-	9,866,319	-	-
Benefit Payments	(25,986,948)	(24,678,227)	(23,267,787)	(21,857,612)	(20,446,872)	(19,272,847)	(17,781,112)	(16,605,774)	(15,812,395)	(14,516,835)
Refunds	(554,205)	(598,493)	(497,062)	(690,857)	(222,774)	(302,235)	(567,039)	(229,271)	(220,469)	(446,590)
Net Change in Total Pension Liability	\$ 15,412,916	\$ 20,315,881	\$ 13,155,358	\$ 12,433,673	\$ 42,926,326	\$ 15,036,219	\$ 11,529,920	\$ 22,530,315	\$ 7,532,241	\$ 17,264,813
Total Pension Liability - Beginning	\$ 459,815,673	\$ 439,499,792	\$ 426,344,434	\$ 413,910,761	\$ 370,984,435	\$ 355,948,216	\$ 344,418,296	\$ 321,887,981	\$ 314,355,740	\$ 297,090,927
Prior Year Adjustment	-	-	-	-	-	-	-	-	-	-
Total Pension Liability - Ending (a)	\$ 475,228,589	\$ 459,815,673	\$ 439,499,792	\$ 426,344,434	\$ 413,910,761	\$ 370,984,435	\$ 355,948,216	\$ 344,418,296	\$ 321,887,981	\$ 314,355,740
Plan Fiduciary Net Position										
Employer and Other Contributions	\$ 22,131,039	\$ 20,289,596	\$ 18,657,250	\$ 17,333,301	\$ 15,442,093	\$ 14,205,016	\$ 13,113,367	\$ 12,221,415	\$ 8,391,456	\$ 11,613,137
Employee and Add'l Contributions	2,716,614	2,580,363	2,551,251	2,478,106	2,374,547	2,440,534	2,387,580	2,342,148	2,389,882	2,744,956
Pension Plan Net Investment Income	27,604,966	31,188,606	(38,377,993)	30,846,413	30,899,858	32,777,140	(11,682,616)	30,429,722	11,543,017	(4,783,148)
Benefit Payments	(25,986,948)	(24,678,227)	(23,267,787)	(21,857,612)	(20,446,872)	(19,272,847)	(17,781,112)	(16,605,774)	(15,812,395)	(14,516,835)
Refunds	(554,205)	(598,493)	(497,062)	(690,857)	(222,774)	(302,235)	(567,039)	(229,271)	(220,469)	(446,590)
Pension Plan Administrative Expense	(826,875)	(784,586)	(733,165)	(775,483)	(910,717)	(876,660)	(702,533)	(759,927)	(791,762)	(693,329)
Other	-	-	-	-	(1,982)	(36,626)	(59,532)	(50,612)	(61,856)	(65,963)
Net Change in Plan Fiduciary Net Position	\$ 25,084,591	\$ 27,997,259	\$ (41,667,506)	\$ 27,333,868	\$ 27,134,153	\$ 28,934,322	\$ (15,291,885)	\$ 27,347,701	\$ 5,437,873	\$ (6,147,772)
Plan Fiduciary Net Position - Beginning	\$ 273,592,981	\$ 245,595,722	\$ 287,263,228	\$ 259,929,360	\$ 232,789,386	\$ 203,944,655	\$ 219,277,973	\$ 191,930,272	\$ 186,492,399	\$ 192,562,665
Adjustment	-	-	-	-	5,821	(89,591)	(41,433)	-	-	77,506
Plan Fiduciary Net Position - Ending (b)	\$ 298,677,572	\$ 273,592,981	\$ 245,595,722	\$ 287,263,228	\$ 259,929,360	\$ 232,789,386	\$ 203,944,655	\$ 219,277,973	\$ 191,930,272	\$ 186,492,399
Net Pension Liability - Ending (a) - (b)	\$ 176,551,017	\$ 186,222,692	\$ 193,904,070	\$ 139,081,206	\$ 153,981,401	\$ 138,195,049	\$ 152,003,561	\$ 125,140,323	\$ 129,957,709	\$ 127,863,341
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	62.85 %	59.50 %	55.88 %	67.38 %	62.80 %	62.75 %	57.30 %	63.67 %	59.63 %	59.33 %
Covered-Employee Payroll	\$ 67,129,760	\$ 62,181,204	\$ 56,969,297	\$ 55,323,580	\$ 54,254,463	\$ 52,895,992	\$ 51,787,265	\$ 53,364,536	\$ 52,888,074	\$ 52,953,903
Net Pension Liability as a Percentage of Covered-Employee Payroll	263.00 %	299.48 %	340.37 %	251.40 %	283.81 %	261.26 %	293.52 %	234.50 %	245.72 %	241.46 %
Notes to Schedule:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Schedules of Required Supplementary Information

Schedule of the Net Pension Liability

Measurement Date December 31	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll*	Net Pension Liability as a % of Covered Payroll
2015	\$ 314,355,740	\$ 186,492,399	\$ 127,863,341	59.33%	\$ 52,953,903	241.46%
2016	321,887,981	191,930,272	129,957,709	59.63%	52,888,074	245.72%
2017	344,418,296	219,277,973	125,140,323	63.67%	53,364,536	234.50%
2018	355,948,216	203,944,655	152,003,561	57.30%	51,787,265	293.52%
2019	370,984,435	232,789,386	138,195,049	62.75%	52,895,992	261.26%
2020	413,910,761	259,929,360	153,981,401	62.80%	54,254,463	283.81%
2021	426,344,434	287,263,228	139,081,206	67.38%	55,323,580	251.40%
2022	439,499,792	245,595,722	193,904,070	55.88%	56,969,297	340.37%
2023	459,815,673	273,592,981	186,222,692	59.50%	62,181,204	299.48%
2024	475,228,589	298,677,572	176,551,017	62.85%	67,129,760	263.00%

* Based on valuation payroll as of plan year ending December 31.

Schedule of Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution (ADC) #	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll*	Actual Contribution as a % of Covered Payroll
2016	\$ 11,613,137	\$ 11,613,137	\$ -	\$ 52,953,903	21.93%
2017	8,391,456	8,391,456	-	52,888,074	15.87%
2018	12,221,415	12,221,415	-	53,364,536	22.90%
2019	13,113,367	13,113,367	-	51,787,265	25.32%
2020	14,205,016	14,205,016	-	52,895,992	26.85%
2021	15,442,093	15,442,093	-	54,254,463	28.46%
2022	17,333,301	17,333,301	-	55,323,580	31.33%
2023	18,657,250	18,657,250	-	56,969,297	32.75%
2024	20,289,596	20,289,596	-	62,181,204	32.63%
2025	22,131,039	22,131,039	-	67,129,760	32.97%

* Based on valuation payroll as of plan year ending December 31.

Employer contributes based on percent of payroll. Employer pays the ADC percentage.



Notes to Schedule of Contributions

Valuation Date: December 31, 2022 and December 31, 2023

Actuarially determined contribution rates are calculated as of December 31 for the contribution period starting 6 months later. Actual contributions reported during the plan year are therefore based on two consecutive ADCs.

Notes

Methods and Assumptions Used to Determine the Fiscal Year Ending June 30, 2024 Contribution Rate:

Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level Percent-of-Payroll, Closed
Remaining Amortization Period	
Asset Valuation Method	5-year smoothed market; 20% corridor
Wage Inflation	2.50%
Salary Increases	3.25% to 6.93% including inflation
Investment Rate of Return	6.75% (net of investment expenses)
Retirement Age	Age and Experience-based table of rates that are specific to the type of eligibility conc
Mortality	Pub-2010 Mortality Table projected to 2039 for males and females using projection sc
Expense Load	1.25% of payroll.
COLA Assumption	1.00% compounded annually.
Other Information:	

Notes There were no changes to benefit provision or actuarial assumptions or methods.

Methods and Assumptions Used to Determine the Fiscal Year Ending June 30, 2025 Contribution Rate:

Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level Percent-of-Payroll, Closed
Remaining Amortization Period	16 years
Asset Valuation Method	5-year smoothed market; 20% corridor
Wage Inflation	2.50%
Salary Increases	3.25% to 6.93% including inflation
Investment Rate of Return	6.75% (net of investment expenses)
Retirement Age	Age and Experience-based table of rates that are specific to the type of eligibility conc
Mortality	Pub-2010 Mortality Table projected to 2039 for males and females using projection sc
Expense Load	1.25% of payroll.
COLA Assumption	1.00% compounded annually.

Other Information:

The load for end of career payments affecting final average earnings was increased from 12% to 13%. There were no other changes to benefit provisions or actuarial assumptions or methods.

Notes



SECTION D

NOTES TO FINANCIAL STATEMENTS

Single Discount Rate

A Single Discount Rate of 6.75% was used to measure the Total Pension Liability. This Single Discount Rate was based on the expected rate of return on pension plan investments of 6.75%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. 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. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

Regarding the sensitivity of the Net Pension Liability to changes in the Single Discount Rate, the following presents the plan's Net Pension Liability, calculated using a Single Discount Rate of 6.75%, as well as what the plan's Net Pension Liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

	Current Single Discount		
	1% Decrease 5.75%	Rate Assumption 6.75%	1% Increase 7.75%
Total Pension Liability (TPL)	\$ 530,686,199	\$ 475,228,589	\$ 428,482,436
Net Position Restricted for Pensions	298,677,572	298,677,572	298,677,572
Net Pension Liability (NPL)	\$ 232,008,627	\$ 176,551,017	\$ 129,804,864

Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,112
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	134
Active Plan Members	<u>1,183</u>
Total Plan Members	2,429

SECTION E

SUMMARY OF BENEFITS

Summary of Benefit Provisions as of December 31, 2024

Eligibility	Amount
NORMAL RETIREMENT	
Members are eligible to retire at age 60.	Straight life pension equals 2.0% of 3-year Final Average Earnings (FAE) times service on and after January 1, 1999 <i>plus</i> 1.5% of FAE times service before January 1, 1999.
Members with at least 20 years of service at retirement are eligible for a minimum benefit if employed on or before January 1, 1974.	Minimum benefit for eligible members is 50% of FAE.
EARLY RETIREMENT	
Members are eligible to retire early if the sum of age and service is at least 80, or at age 55 with at least 20 years of service.	Computed as a normal retirement pension. If the early retirement occurs prior to the member attaining age 60, the benefit is reduced by 1/6 of 1% for each month that the early retirement precedes age 60.
DEFERRED RETIREMENT	
Members are eligible to retire with a deferred benefit after attaining at least 5 years of service, provided they do not take a refund of member contributions.	Pension is computed as a normal retirement pension, based on service and FAE on date of termination. Commencement of benefits begins at age 60.
NON-DUTY DISABILITY	
Members are eligible upon attainment of 15 years of service.	Pension is computed as a normal retirement pension based on service and FAE as of date of disability.
DUTY DISABILITY	
No age or service requirement.	Pension is computed as a normal retirement pension based on service and FAE as of date of disability. Minimum duty disability benefit is 50% of FAE.

Summary of Benefit Provisions as of December 31, 2024

Eligibility	Amount
ORDINARY DEATH-IN-SERVICE	
(1) Any age with less than 5 years of service.	Beneficiary receives member's contributions and accumulated interest, and an additional lump sum equal to one year's salary.
(2) Any age with 5 or more years of service.	Beneficiary receives the option of: (1) the greater of (a) 50% of the accrued service retirement benefit (without any early retirement reduction); or (b) pension computed as normal or early retirement benefit (depending on eligibility), actuarially reduced as if the member had elected the 100% Joint & Survivor benefit; or (2) lump sum equal to 100% of base salary plus the member's accumulated contributions (including interest).
DUTY DEATH-IN-SERVICE	
Death as a result of a work-related accident; not caused by willful neglect of the member.	The option of: (1) the greater of (a) 50% of FAE, or (b) pension computed as an early retirement benefit actuarially reduced as if the member had elected the 100% Joint & Survivor benefit; or (2) a lump sum as described below; options payable to the spouse or child(ren) under age 18. If no spouse or child(ren) are alive at the time of the member's death, a lump sum is payable to the member's estate in the amount of 100% of base salary plus the member's accumulated contributions (including interest) plus accrued fringe benefits not paid at the time of death.
MEMBER CONTRIBUTIONS	
3.75% of pay for service on and after January 1, 1999. 2.5% of pay for service prior to January 1, 1999. Contributions are credited with 5.0% interest per annum. Members may elect to contribute additional contributions which are accounted for separately. At retirement the additional contribution balance is annuitized to provide an additional benefit, within certain limits.	



Summary of Benefit Provisions as of December 31, 2024

OPTIONAL FORMS OF PAYMENT

In lieu of the straight life benefit, a member may elect an actuarially reduced benefit in one of the following forms:

- 100% Joint & Survivor with pop-up
- 66 2/3 % Joint & Survivor with pop-up
- 50% Joint & Survivor with pop-up
- 10-year Certain & Life Option

The actuarial factors for optional forms of payment are based on the 1983 Group Annuity Mortality Table and 7.5% interest.

SERVICE UPGRADE

Members may elect to purchase an increase in their benefit multiplier for service rendered before 1999 under Chapter 159 (or Senate Bill 402). The cost to the member is $\frac{1}{2}$ of the actuarially determined increase in System costs and results in a benefit based on 2% of FAE for the time purchased.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the *individual entry-age actuarial cost method*. GASB Statement Nos. 67 and 68 require the use of this method having the following characteristics:

- 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;
- Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay; and
- The use of Market Value of Assets for the Net Position Restricted for Pensions.

Valuation Assumptions

The contribution requirements and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and member information furnished, using the actuarial cost method described on the previous page.

The principal areas of financial risk which require assumptions about future experience are:

- Long-term rates of investment return to be generated by the assets of the System;
- Patterns of pay increases to members;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives - - - a period of time which can be as long as a century.

Actual experience of the System will not coincide exactly with assumed experience, regardless of the accuracy of the assumptions, or the skill of the actuary and the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time-to-time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). The Board has established a policy of performing an Experience Study every three to five years to evaluate/modify valuation assumptions. Assumptions used in this report are based on the January 1, 2017 – December 31, 2019 experience study of the MECRS and were adopted by the Board. These assumptions were first used in the December 31, 2020 actuarial valuation. We believe the assumptions are reasonable individually and in the aggregate.

Valuation Assumptions (Continued)

The rate of investment return was 6.75% per year, compounded annually (net of investment expenses). This assumption is used to make money payable at one point in time equal in value to a different amount of money payable at another point in time. The assumed real rate of return (the net return in excess of the wage inflation rate) is 4.25%. Experience over the last five years has been as follows:

	Year Ended December 31					5-Year Average
	2024	2023	2022	2021	2020	
1) Nominal rate of return#	6.40 %	7.00 %	4.00 %	9.70 %	8.60 %	7.12 %
2) Increase in CPI	2.89 %	3.35 %	6.45 %	7.04 %	1.36 %	4.20 %
3) Average Salary Increase (ASI)	2.12 %	3.20 %	4.14 %	3.69 %	5.49 %	3.72 %
4) Real Return						
- Total: CPI (1) - (2)						2.93 %
- Total: ASI (1) - (3)						3.40 %
- Assumption	4.25 %	4.25 %	4.25 %	4.25 %	4.25 %	4.25 %

The nominal rate of return was computed using the approximate formula: $i = I$ divided by $\frac{1}{2}(A+B-I)$, where I is realized investment income net of expenses, A is the beginning of year asset funding value and B is the end of year funding asset value.

The rate of assumed price inflation was 2.00% per year. This results in a real rate of return over price inflation of 4.75%.

These economic assumptions were updated for the December 31, 2020 valuation.

Valuation Assumptions (Continued)

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

Years of Service	Salary Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
1	3.46%	2.50%	5.96%
2	4.43%	2.50%	6.93%
3	4.22%	2.50%	6.72%
4	3.70%	2.50%	6.20%
5	3.38%	2.50%	5.88%
6	2.93%	2.50%	5.43%
7	2.55%	2.50%	5.05%
8	2.26%	2.50%	4.76%
9	2.06%	2.50%	4.56%
10	1.85%	2.50%	4.35%
15	1.08%	2.50%	3.58%
20	0.77%	2.50%	3.27%
25	0.75%	2.50%	3.25%
30	0.75%	2.50%	3.25%
35	0.75%	2.50%	3.25%
40	0.75%	2.50%	3.25%

If the number of active members remains constant, then the total active member payroll will increase 2.50% annually, the base portion of the individual salary increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

Rates of salary increase were updated for the December 31, 2020 valuation.

Valuation Assumptions (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were updated for the December 31, 2020 valuation and are as follows:

Active Members Retiring Next Year Under Normal Retirement			Active Members Retiring Next Year Under Early Retirement			
Ages	% Retiring		Ages	% Retiring		
				Age and Service		Rule of 80
	Male	Female		Male	Female	
60	12%	8%	50			10%
61	11%	15%	51			4%
62	22%	19%	52			7%
63	18%	10%	53			5%
64	18%	10%	54			5%
65	24%	19%	55	5%	10%	5%
66	38%	27%	56	5%	15%	4%
67	15%	19%	57	5%	8%	8%
68	39%	15%	58	5%	7%	8%
69	15%	22%	59	5%	7%	10%
70	27%	25%				
71	50%	19%				
72	42%	19%				
73	50%	19%				
74	50%	19%				
75	100%	19%				
76	100%	19%				
77	100%	19%				
78	100%	19%				
79	100%	19%				
80	100%	100%				

A member was assumed to be eligible for normal retirement after attaining age 60, regardless of service. A member was assumed to be eligible for early retirement after attaining age 55 with at least 20 years of service or if the sum of age and service is at least 80.

Valuation Assumptions (Continued)

The post-retirement healthy mortality table was the Pub-2010 General Healthy Mortality Table projected to 2039 using projection scale MP-2019.

Sample Attained Ages	Single Life Retirement Values					
	Present Value of \$1 Monthly for Life		Percent Dying Next Year		Future Life Expectancy (Years)	
	Male	Female	Male	Female	Male	Female
50	\$158.10	\$162.48	0.2552%	0.1899%	34.83	37.64
55	150.84	156.27	0.3655%	0.2572%	30.30	33.01
60	141.83	148.25	0.5441%	0.3494%	25.91	28.46
65	130.71	137.94	0.7880%	0.5138%	21.66	23.99
70	117.05	125.04	1.2298%	0.8314%	17.58	19.67
75	101.05	109.55	2.0765%	1.4535%	13.77	15.59
80	83.40	91.89	3.6906%	2.6437%	10.36	11.86

This assumption is used to measure the probabilities of members dying after retirement. The projection to 2039 is the margin for mortality improvement.

Post-retirement disabled mortality table is the Pub-2010 General Disabled Retiree Mortality Tables projected to 2039 using projection scale MP-2019.

Pre-retirement mortality is modeled using the Pub-2010 General Employee Mortality Tables projected to 2039 using projection scale MP-2019.

These tables were updated for the December 31, 2020 valuation in accordance with an experience study for the System of the three-year period ended December 31, 2019.

Valuation Assumptions (Concluded)

Rates of separation from active membership are shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment. These rates were updated for the December 31, 2020 valuation.

Sample Ages	Years of Service	% of Active Members Separating within Next Year	
		Male	Female
	0-1	24.00%	36.00%
	1-2	18.00%	26.00%
	2-3	13.00%	22.00%
	3-4	7.00%	14.00%
	4-5	7.00%	14.00%
	5-6	n/a	11.00%
	5 & Up (Men)		
30	6 & Up (Women)	4.00%	6.89%
35		2.96%	5.79%
40		2.33%	5.01%
45		2.00%	4.42%
50		1.87%	3.84%

Rates of disability are divided two-thirds toward duty and one-third toward non-duty disability and are as follows:

Sample Ages	% of Active Members Becoming Disabled within Next Year	
	Male	Female
20	0.003%	0.003%
25	0.003%	0.003%
30	0.003%	0.003%
35	0.013%	0.013%
40	0.051%	0.051%
45	0.105%	0.105%
50	0.173%	0.173%
55	0.256%	0.256%
60	0.382%	0.382%

Miscellaneous and Technical Assumptions

Marriage Assumption:	50% of males and 50% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Beginning of the year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and exact fractional service on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and withdrawal decrements do not operate after member reaches retirement eligibility.
Administrative Expense Load:	1.25% of payroll.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Benefit Service:	Exact fractional service as of the valuation date is used to determine the amount of benefit payable.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the actual payroll payable at the time contributions are made.
COLA Assumption:	1.00% compounded annually.
Adjustments:	Normal and Early retirement costs were increased by 13% to reflect lump sums that are payable at retirement but not available in the active data. Retiree liabilities were increased 1% to account for pop-up retiree benefits.
Data Processing:	The Retirement System provides data in Excel format. GRS reviews the data for reasonableness and completeness. Questions are sent to the System. Data is then modified based on the answers provided. For new members with less than one year of earnings, reported pay is annualized based on reported service.
Data Adjustments:	For members who have no salary provided, their prior year's salary was used.

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk-free” 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 6.75%; the municipal bond rate is 4.08%; and the resulting SDR is 6.75%.

The tables in this section provide background for the development of the SDR.

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). Administrative expenses were projected at the current level of 1.23% of payroll.

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 SDR. 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 Ending December 31, 2124

Year	Payroll for Current Employees	Contributions from Current Employees	Service Cost Contributions	Administrative Expense Contributions	UAL Contributions	Total Contributions
0	\$ 67,129,760					
1	70,330,273	\$ 2,637,385	\$ 6,473,463	\$ 866,298	\$ 15,819,089	\$ 25,796,235
2	63,984,105	2,399,404	5,865,253	788,128	16,914,767	25,967,552
3	59,414,266	2,228,035	5,411,654	731,839	16,856,551	25,228,079
4	55,894,728	2,096,052	5,049,830	688,487	17,064,741	24,899,110
5	52,950,013	1,985,626	4,744,884	652,215	17,491,360	24,874,085
6	50,260,284	1,884,761	4,465,161	619,084	17,928,643	24,897,649
7	47,903,732	1,796,390	4,223,177	590,057	18,376,860	24,986,484
8	45,730,060	1,714,877	3,998,248	563,283	18,836,281	25,112,689
9	43,578,762	1,634,204	3,778,137	536,784	19,307,188	25,256,313
10	41,569,464	1,558,855	3,572,966	512,034	19,789,868	25,433,723
11	39,543,343	1,482,875	3,366,527	487,078	20,284,614	25,621,095
12	37,597,639	1,409,911	3,168,603	463,111	20,791,730	25,833,355
13	35,839,029	1,343,964	2,993,884	441,449	21,311,523	26,090,820
14	34,097,525	1,278,657	2,819,927	419,998	21,844,311	26,362,893
15	32,454,314	1,217,037	2,658,879	399,758	22,390,419	26,666,093
16	30,780,934	1,154,285	2,493,782	379,146	-	4,027,213
17	29,256,135	1,097,105	2,348,057	360,364	-	3,805,526
18	27,796,544	1,042,370	2,208,444	342,386	-	3,593,201
19	26,410,063	990,377	2,079,480	325,308	-	3,395,165
20	25,012,456	937,967	1,950,276	308,092	-	3,196,335
21	23,568,749	883,828	1,819,086	290,310	-	2,993,224
22	22,193,942	832,273	1,693,330	273,375	-	2,798,978
23	20,794,607	779,798	1,569,590	256,139	-	2,605,527
24	19,466,118	729,979	1,453,277	239,775	-	2,423,031
25	18,056,877	677,133	1,332,027	222,417	-	2,231,577
26	16,762,527	628,595	1,220,334	206,473	-	2,055,402
27	15,374,823	576,556	1,102,721	189,380	-	1,868,657
28	14,090,528	528,395	996,219	173,561	-	1,698,175
29	12,774,650	479,049	889,399	157,353	-	1,525,801
30	11,499,716	431,239	788,296	141,648	-	1,361,183
31	10,287,455	385,780	694,495	126,716	-	1,206,990
32	9,120,651	342,024	605,024	112,344	-	1,059,392
33	7,993,580	299,759	520,937	98,461	-	919,157
34	6,977,373	261,652	447,062	85,944	-	794,657
35	6,062,598	227,347	381,380	74,676	-	683,404
36	5,166,346	193,738	318,807	63,637	-	576,182
37	4,374,864	164,057	265,036	53,888	-	482,982
38	3,665,072	137,440	217,694	45,145	-	400,279
39	3,016,924	113,135	175,886	37,161	-	326,182
40	2,478,632	92,949	141,655	30,531	-	265,135
41	1,991,192	74,670	111,807	24,527	-	211,004
42	1,572,712	58,977	86,850	19,372	-	165,199
43	1,209,512	45,357	65,353	14,898	-	125,608
44	948,204	35,558	50,385	11,680	-	97,623
45	710,032	26,626	37,004	8,746	-	72,376
46	526,274	19,735	26,861	6,482	-	53,078
47	389,937	14,623	19,544	4,803	-	38,970
48	286,045	10,727	13,876	3,523	-	28,126
49	211,110	7,917	9,993	2,600	-	20,510
50	157,221	5,896	7,103	1,937	-	14,936

Single Discount Rate Development Projection of Contributions Ending December 31, 2124 (Concluded)

Year	Payroll for Current Employees	Contributions from Current Employees	Service Cost Contributions	Administrative Expense Contributions	UAL Contributions	Total Contributions
51	\$ 112,687	\$ 4,226	\$ 5,014	\$ 1,388	\$ -	\$ 10,628
52	78,667	2,950	3,407	969	-	7,326
53	55,821	2,093	2,281	688	-	5,063
54	39,254	1,472	1,482	484	-	3,438
55	26,738	1,003	1,038	329	-	2,370
56	16,092	603	560	198	-	1,362
57	9,183	344	296	113	-	753
58	5,449	204	150	67	-	421
59	2,107	79	55	26	-	160
60	1,515	57	42	19	-	118
61	494	19	13	6	-	37
62	125	5	3	2	-	10
63	-	-	-	-	-	-
64	-	-	-	-	-	-
65	-	-	-	-	-	-
66	-	-	-	-	-	-
67	-	-	-	-	-	-
68	-	-	-	-	-	-
69	-	-	-	-	-	-
70	-	-	-	-	-	-
71	-	-	-	-	-	-
72	-	-	-	-	-	-
73	-	-	-	-	-	-
74	-	-	-	-	-	-
75	-	-	-	-	-	-
76	-	-	-	-	-	-
77	-	-	-	-	-	-
78	-	-	-	-	-	-
79	-	-	-	-	-	-
80	-	-	-	-	-	-
81	-	-	-	-	-	-
82	-	-	-	-	-	-
83	-	-	-	-	-	-
84	-	-	-	-	-	-
85	-	-	-	-	-	-
86	-	-	-	-	-	-
87	-	-	-	-	-	-
88	-	-	-	-	-	-
89	-	-	-	-	-	-
90	-	-	-	-	-	-
91	-	-	-	-	-	-
92	-	-	-	-	-	-
93	-	-	-	-	-	-
94	-	-	-	-	-	-
95	-	-	-	-	-	-
96	-	-	-	-	-	-
97	-	-	-	-	-	-
98	-	-	-	-	-	-
99	-	-	-	-	-	-
100	-	-	-	-	-	-

Single Discount Rate Development

Projection of Plan Fiduciary Net Position

Ending December 31, 2124

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	\$ 298,677,572	\$ 25,796,235	\$ 29,194,283	\$ 866,298	\$ 20,019,164	\$ 314,432,390
2	314,432,390	25,967,552	30,434,050	788,128	21,049,738	330,227,503
3	330,227,503	25,228,079	31,604,741	731,839	22,054,362	345,173,363
4	345,173,363	24,899,110	32,750,619	688,487	23,015,683	359,649,051
5	359,649,051	24,874,085	33,915,727	652,215	23,954,485	373,909,679
6	373,909,679	24,897,649	35,124,325	619,084	24,878,836	387,942,755
7	387,942,755	24,986,484	36,311,295	590,057	25,790,575	401,818,462
8	401,818,462	25,112,689	37,374,774	563,283	26,696,958	415,690,052
9	415,690,052	25,256,313	38,342,156	536,784	27,606,822	429,674,246
10	429,674,246	25,433,723	39,250,105	512,034	28,527,324	443,873,154
11	443,873,154	25,621,095	40,102,451	487,078	29,464,502	458,369,221
12	458,369,221	25,833,355	40,794,511	463,111	30,427,854	473,372,808
13	473,372,808	26,090,820	41,402,671	441,449	31,429,672	489,049,179
14	489,049,179	26,362,893	41,893,168	419,998	32,481,288	505,580,194
15	505,580,194	26,666,093	42,254,849	399,758	33,595,862	523,187,542
16	523,187,542	4,027,213	42,501,329	379,146	34,025,273	518,359,554
17	518,359,554	3,805,526	42,660,469	360,364	33,687,364	512,831,611
18	512,831,611	3,593,201	42,738,901	342,386	33,305,172	506,648,696
19	506,648,696	3,395,165	42,689,743	325,308	32,883,450	499,912,261
20	499,912,261	3,196,335	42,580,084	308,092	32,426,352	492,646,771
21	492,646,771	2,993,224	42,442,123	290,310	31,934,358	484,841,920
22	484,841,920	2,798,978	42,213,158	273,375	31,409,246	476,563,611
23	476,563,611	2,605,527	41,921,805	256,139	30,854,282	467,845,476
24	467,845,476	2,423,031	41,606,111	239,775	30,270,774	458,693,394
25	458,693,394	2,231,577	41,241,895	222,417	29,659,320	449,119,979
26	449,119,979	2,055,402	40,820,940	206,473	29,021,770	439,169,738
27	439,169,738	1,868,657	40,390,328	189,380	28,358,792	428,817,479
28	428,817,479	1,698,175	39,875,919	173,561	27,671,958	418,138,132
29	418,138,132	1,525,801	39,357,997	157,353	26,963,112	407,111,696
30	407,111,696	1,361,183	38,885,468	141,648	26,229,571	395,675,335
31	395,675,335	1,206,990	38,352,329	126,716	25,470,693	383,873,974
32	383,873,974	1,059,392	37,778,321	112,344	24,688,735	371,731,436
33	371,731,436	919,157	37,163,211	98,461	23,885,340	359,274,260
34	359,274,260	794,657	36,491,592	85,944	23,063,060	346,554,442
35	346,554,442	683,404	35,806,844	74,676	22,223,886	333,580,211
36	333,580,211	576,182	35,111,962	63,637	21,368,001	320,348,796
37	320,348,796	482,982	34,343,208	53,888	20,497,632	306,932,313
38	306,932,313	400,279	33,520,433	45,145	19,616,879	293,383,894
39	293,383,894	326,182	32,660,934	37,161	18,728,700	279,740,681
40	279,740,681	265,135	31,757,061	30,531	17,835,985	266,054,209
41	266,054,209	211,004	30,808,120	24,527	16,942,054	252,374,619
42	252,374,619	165,199	29,806,496	19,372	16,050,585	238,764,534
43	238,764,534	125,608	28,764,327	14,898	15,165,337	225,276,254
44	225,276,254	97,623	27,692,183	11,680	14,289,650	211,959,664
45	211,959,664	72,376	26,612,356	8,746	13,425,888	198,836,826
46	198,836,826	53,078	25,509,409	6,482	12,576,148	185,950,160
47	185,950,160	38,970	24,389,726	4,803	11,743,058	173,337,658
48	173,337,658	28,126	23,258,178	3,523	10,928,962	161,033,046
49	161,033,046	20,510	22,117,004	2,600	10,136,065	149,070,016
50	149,070,016	14,936	20,973,560	1,937	9,366,358	137,475,813

Single Discount Rate Development

Projection of Plan Fiduciary Net Position

Ending December 31, 2124 (Concluded)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
51	\$ 137,475,813	\$ 10,628	\$ 19,831,287	\$ 1,388	\$ 8,621,547	\$ 126,275,313
52	126,275,313	7,326	18,688,926	969	7,903,343	115,496,086
53	115,496,086	5,063	17,548,952	688	7,213,525	105,165,034
54	105,165,034	3,438	16,416,370	484	6,553,732	95,305,350
55	95,305,350	2,370	15,295,521	329	5,925,384	85,937,253
56	85,937,253	1,362	14,189,260	198	5,329,735	77,078,892
57	77,078,892	753	13,100,252	113	4,767,932	68,747,212
58	68,747,212	421	12,034,202	67	4,240,926	60,954,291
59	60,954,291	160	10,995,515	26	3,749,380	53,708,289
60	53,708,289	118	9,988,907	19	3,293,692	47,013,174
61	47,013,174	37	9,019,960	6	2,873,937	40,867,182
62	40,867,182	10	8,092,474	2	2,489,874	35,264,589
63	35,264,589	-	7,210,724	-	2,140,972	30,194,837
64	30,194,837	-	6,378,470	-	1,826,393	25,642,761
65	25,642,761	-	5,598,936	-	1,545,008	21,588,832
66	21,588,832	-	4,874,501	-	1,295,418	18,009,750
67	18,009,750	-	4,206,813	-	1,075,996	14,878,934
68	14,878,934	-	3,596,907	-	884,915	12,166,941
69	12,166,941	-	3,045,101	-	720,174	9,842,014
70	9,842,014	-	2,550,934	-	579,648	7,870,728
71	7,870,728	-	2,113,176	-	461,119	6,218,671
72	6,218,671	-	1,729,837	-	362,332	4,851,165
73	4,851,165	-	1,398,238	-	281,034	3,733,962
74	3,733,962	-	1,115,134	-	215,021	2,833,849
75	2,833,849	-	876,769	-	162,177	2,119,257
76	2,119,257	-	678,983	-	120,508	1,560,783
77	1,560,783	-	517,424	-	88,175	1,131,533
78	1,131,533	-	387,703	-	63,507	807,338
79	807,338	-	285,455	-	45,019	566,902
80	566,902	-	206,433	-	31,413	391,881
81	391,881	-	146,614	-	21,585	266,852
82	266,852	-	102,289	-	14,617	179,179
83	179,179	-	70,152	-	9,766	118,793
84	118,793	-	47,353	-	6,446	77,887
85	77,887	-	31,516	-	4,211	50,583
86	50,583	-	20,724	-	2,726	32,585
87	32,585	-	13,492	-	1,752	20,844
88	20,844	-	8,716	-	1,118	13,246
89	13,246	-	5,596	-	708	8,359
90	8,359	-	3,573	-	446	5,231
91	5,231	-	2,270	-	278	3,238
92	3,238	-	1,432	-	171	1,977
93	1,977	-	894	-	104	1,187
94	1,187	-	551	-	62	698
95	698	-	333	-	36	401
96	401	-	197	-	21	225
97	225	-	113	-	11	123
98	123	-	64	-	6	65
99	65	-	35	-	3	34
100	34	-	35	-	1	0

Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31, 2124

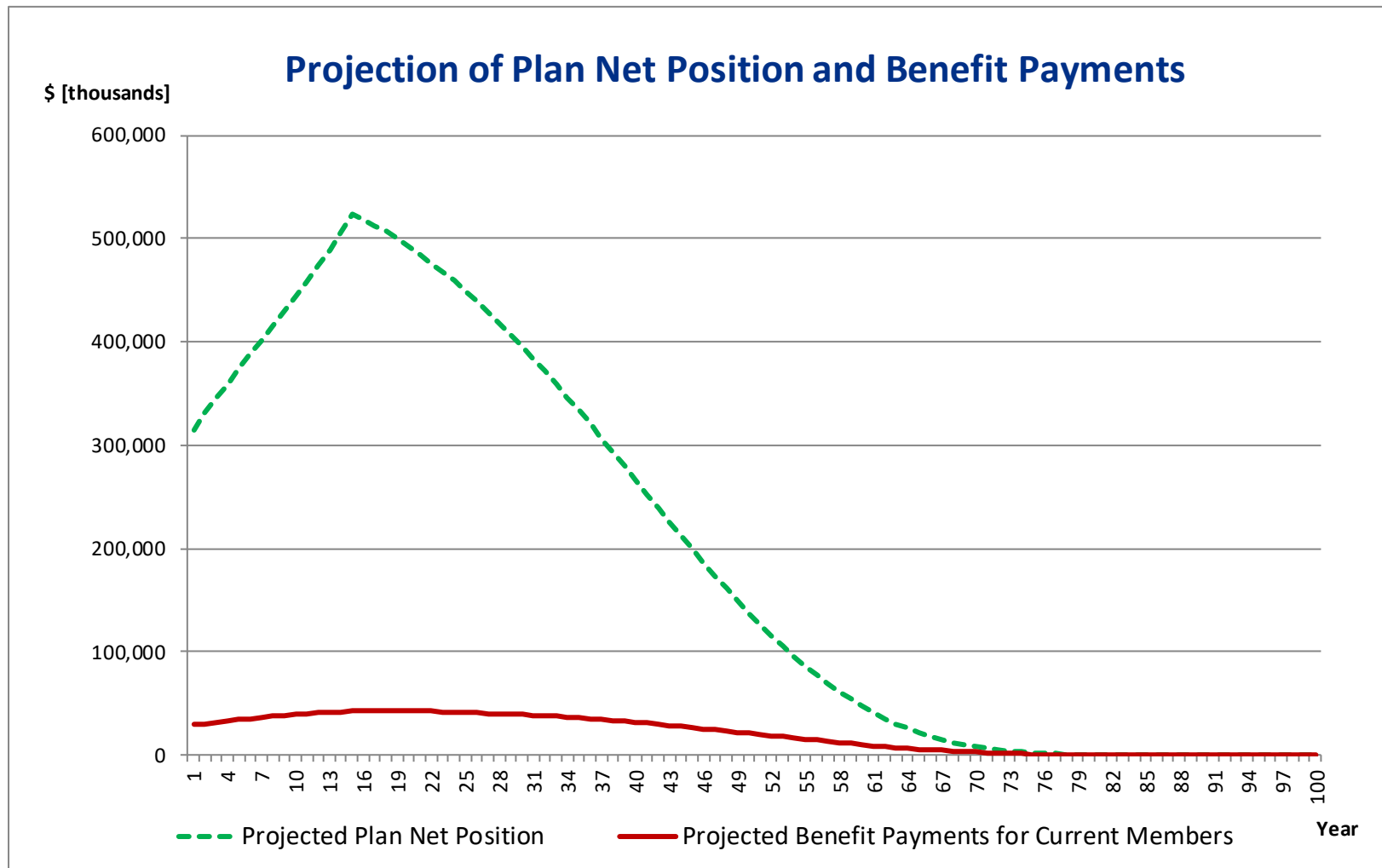
Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/((1+sdr) ^a ((a)-.5)
1	\$ 298,677,572	\$ 29,194,283	\$ 29,194,283	\$ -	\$ 28,256,208	\$ -	\$ 28,256,208
2	314,432,390	30,434,050	30,434,050	-	27,593,572	-	27,593,572
3	330,227,503	31,604,741	31,604,741	-	26,843,091	-	26,843,091
4	345,173,363	32,750,619	32,750,619	-	26,057,450	-	26,057,450
5	359,649,051	33,915,727	33,915,727	-	25,278,171	-	25,278,171
6	373,909,679	35,124,325	35,124,325	-	24,523,623	-	24,523,623
7	387,942,755	36,311,295	36,311,295	-	23,749,282	-	23,749,282
8	401,818,462	37,374,774	37,374,774	-	22,899,155	-	22,899,155
9	415,690,052	38,342,156	38,342,156	-	22,006,426	-	22,006,426
10	429,674,246	39,250,105	39,250,105	-	21,103,084	-	21,103,084
11	443,873,154	40,102,451	40,102,451	-	20,197,989	-	20,197,989
12	458,369,221	40,794,511	40,794,511	-	19,247,356	-	19,247,356
13	473,372,808	41,402,671	41,402,671	-	18,299,104	-	18,299,104
14	489,049,179	41,893,168	41,893,168	-	17,345,099	-	17,345,099
15	505,580,194	42,254,849	42,254,849	-	16,388,615	-	16,388,615
16	523,187,542	42,501,329	42,501,329	-	15,441,885	-	15,441,885
17	518,359,554	42,660,469	42,660,469	-	14,519,630	-	14,519,630
18	512,831,611	42,738,901	42,738,901	-	13,626,533	-	13,626,533
19	506,648,696	42,689,743	42,689,743	-	12,750,220	-	12,750,220
20	499,912,261	42,580,084	42,580,084	-	11,913,319	-	11,913,319
21	492,646,771	42,442,123	42,442,123	-	11,123,859	-	11,123,859
22	484,841,920	42,213,158	42,213,158	-	10,364,261	-	10,364,261
23	476,563,611	41,921,805	41,921,805	-	9,641,899	-	9,641,899
24	467,845,476	41,606,111	41,606,111	-	8,964,207	-	8,964,207
25	458,693,394	41,241,895	41,241,895	-	8,323,873	-	8,323,873
26	449,119,979	40,820,940	40,820,940	-	7,717,950	-	7,717,950
27	439,169,738	40,390,328	40,390,328	-	7,153,663	-	7,153,663
28	428,817,479	39,875,919	39,875,919	-	6,615,976	-	6,615,976
29	418,138,132	39,357,997	39,357,997	-	6,117,138	-	6,117,138
30	407,111,696	38,885,468	38,885,468	-	5,661,542	-	5,661,542
31	395,675,335	38,352,329	38,352,329	-	5,230,838	-	5,230,838
32	383,873,974	37,778,321	37,778,321	-	4,826,745	-	4,826,745
33	371,731,436	37,163,211	37,163,211	-	4,447,920	-	4,447,920
34	359,274,260	36,491,592	36,491,592	-	4,091,369	-	4,091,369
35	346,554,442	35,806,844	35,806,844	-	3,760,746	-	3,760,746
36	333,580,211	35,111,962	35,111,962	-	3,454,580	-	3,454,580
37	320,348,796	34,343,208	34,343,208	-	3,165,287	-	3,165,287
38	306,932,313	33,520,433	33,520,433	-	2,894,103	-	2,894,103
39	293,383,894	32,660,934	32,660,934	-	2,641,588	-	2,641,588
40	279,740,681	31,757,061	31,757,061	-	2,406,074	-	2,406,074
41	266,054,209	30,808,120	30,808,120	-	2,186,583	-	2,186,583
42	252,374,619	29,806,496	29,806,496	-	1,981,727	-	1,981,727
43	238,764,534	28,764,327	28,764,327	-	1,791,510	-	1,791,510
44	225,276,254	27,692,183	27,692,183	-	1,615,676	-	1,615,676
45	211,959,664	26,612,356	26,612,356	-	1,454,496	-	1,454,496
46	198,836,826	25,509,409	25,509,409	-	1,306,056	-	1,306,056
47	185,950,160	24,389,726	24,389,726	-	1,169,770	-	1,169,770
48	173,337,658	23,258,178	23,258,178	-	1,044,964	-	1,044,964
49	161,033,046	22,117,004	22,117,004	-	930,859	-	930,859
50	149,070,016	20,973,560	20,973,560	-	826,917	-	826,917

Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31, 2124 (Concluded)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf^((a)-.5)	(h)=(c)/(1+sdr)^(a-.5)
51	\$ 137,475,813	\$ 19,831,287	\$ 19,831,287	\$ -	\$ 732,441	\$ -	\$ 732,441
52	126,275,313	18,688,926	18,688,926	-	646,604	-	646,604
53	115,496,086	17,548,952	17,548,952	-	568,771	-	568,771
54	105,165,034	16,416,370	16,416,370	-	498,420	-	498,420
55	95,305,350	15,295,521	15,295,521	-	435,025	-	435,025
56	85,937,253	14,189,260	14,189,260	-	378,044	-	378,044
57	77,078,892	13,100,252	13,100,252	-	326,960	-	326,960
58	68,747,212	12,034,202	12,034,202	-	281,361	-	281,361
59	60,954,291	10,995,515	10,995,515	-	240,821	-	240,821
60	53,708,289	9,988,907	9,988,907	-	204,941	-	204,941
61	47,013,174	9,019,960	9,019,960	-	173,360	-	173,360
62	40,867,182	8,092,474	8,092,474	-	145,699	-	145,699
63	35,264,589	7,210,724	7,210,724	-	121,615	-	121,615
64	30,194,837	6,378,470	6,378,470	-	100,776	-	100,776
65	25,642,761	5,598,936	5,598,936	-	82,866	-	82,866
66	21,588,832	4,874,501	4,874,501	-	67,582	-	67,582
67	18,009,750	4,206,813	4,206,813	-	54,637	-	54,637
68	14,878,934	3,596,907	3,596,907	-	43,762	-	43,762
69	12,166,941	3,045,101	3,045,101	-	34,706	-	34,706
70	9,842,014	2,550,934	2,550,934	-	27,235	-	27,235
71	7,870,728	2,113,176	2,113,176	-	21,135	-	21,135
72	6,218,671	1,729,837	1,729,837	-	16,207	-	16,207
73	4,851,165	1,398,238	1,398,238	-	12,272	-	12,272
74	3,733,962	1,115,134	1,115,134	-	9,168	-	9,168
75	2,833,849	876,769	876,769	-	6,753	-	6,753
76	2,119,257	678,983	678,983	-	4,899	-	4,899
77	1,560,783	517,424	517,424	-	3,497	-	3,497
78	1,131,533	387,703	387,703	-	2,455	-	2,455
79	807,338	285,455	285,455	-	1,693	-	1,693
80	566,902	206,433	206,433	-	1,147	-	1,147
81	391,881	146,614	146,614	-	763	-	763
82	266,852	102,289	102,289	-	499	-	499
83	179,179	70,152	70,152	-	320	-	320
84	118,793	47,353	47,353	-	203	-	203
85	77,887	31,516	31,516	-	126	-	126
86	50,583	20,724	20,724	-	78	-	78
87	32,585	13,492	13,492	-	47	-	47
88	20,844	8,716	8,716	-	29	-	29
89	13,246	5,596	5,596	-	17	-	17
90	8,359	3,573	3,573	-	10	-	10
91	5,231	2,270	2,270	-	6	-	6
92	3,238	1,432	1,432	-	4	-	4
93	1,977	894	894	-	2	-	2
94	1,187	551	551	-	1	-	1
95	698	333	333	-	1	-	1
96	401	197	197	-	0	-	0
97	225	113	113	-	0	-	0
98	123	64	64	-	0	-	0
99	65	35	35	-	-	-	-
100	34	35	35	-	-	-	-
Totals					\$ 546,198,946	\$ -	\$ 546,198,946



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

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

Glossary of Terms

<i>Amortization Method</i>	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).
<i>Amortization Payment</i>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<i>Cost-of-Living Adjustments</i>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i>	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
<i>Covered-Employee Payroll</i>	The payroll of covered employees, which is typically only the pensionable pay, and does not include pay above any pay cap.
<i>Deferred Inflows and Outflows</i>	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
<i>Deferred Retirement Option Program (DROP)</i>	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.
<i>Discount Rate</i>	<p>For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:</p> <ol style="list-style-type: none">1. The benefit payments to be made while the pension plans’ fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

Glossary of Terms

<i>Entry Age Actuarial Cost Method (EAN)</i>	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
<i>Fiduciary Net Position</i>	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
<i>GASB</i>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<i>Long-Term Expected Rate of Return</i>	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
<i>Money-Weighted Rate of Return</i>	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
<i>Multiple-Employer Defined Benefit Pension Plan</i>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<i>Municipal Bond Rate</i>	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
<i>Net Pension Liability (NPL)</i>	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
<i>Non-Employer Contribution Entities</i>	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contribution entities.
<i>Normal Cost</i>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method. The Normal Cost may also be referred to as "Service Cost."



Glossary of Terms

Other Postemployment Benefits (OPEB)

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 health care benefits regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

Real Rate of Return

The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

Service Cost

The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year. The Service Cost may also be referred to as the “Normal Cost.”

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 Benefit Changes
4. Employee Contributions (made negative for addition here)
5. Projected Earnings on Plan Investments (made negative for addition here)
6. Pension Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to Liabilities
9. Recognition of Outflow (Inflow) of Resources due to Assets

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 assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 67 and 68, the valuation assets are equal to the market value of assets.