

City of Battle Creek
Police and Fire Retirement System
GASB Statement Nos. 67 and 68 Accounting and
Financial Reporting for Pensions
June 30, 2024





October 17, 2024

Retirement Board
City of Battle Creek
Police and Fire Retirement System
Battle Creek, Michigan

Dear Board Members:

This report provides 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 Battle Creek Police and Fire Retirement System. 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 stand-alone 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.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statement Nos. 67 and 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. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the City of Battle Creek Police and Fire Retirement System only in its entirety and only with the permission of the City. GRS is not responsible for unauthorized use of this report.

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

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.

Retirement Board
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This report complements the actuarial valuation report that was provided to the Retirement System and should be considered in conjunction with that report. Please see the June 30, 2023 actuarial valuation report dated January 3, 2024 for additional discussion of the nature of actuarial calculations, and for more information related to participant data and benefit provisions.

The signing actuaries are independent of the plan sponsor.

To the best of our knowledge, this report is complete, accurate, and in accordance with generally recognized actuarial methods. Abra D. Hill and Derek Henning 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



Abra D. Hill, ASA, FCA, MAAA



Derek Henning, ASA, EA, FCA, MAAA

ADH/DH:rmn

C0029



Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Battle Creek Police and Fire Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.



City of Battle Creek Police and Fire Retirement System

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SECTION A

EXECUTIVE SUMMARY

Executive Summary as of June 30, 2024

Actuarial Valuation Date	June 30, 2023
Measurement Date of the Net Pension Liability	June 30, 2024
Employer's Fiscal Year Ending Date (Reporting Date)	June 30, 2024
Membership	
Number of	
- Retirees and Beneficiaries (Includes 11 DROP members)	293
- Inactive, Nonretired Members	10
- Active Members	<u>183</u>
- Total	486
Covered Payroll ⁽¹⁾	\$ 16,381,903
Net Pension Liability	
Total Pension Liability	\$ 243,806,548
Plan Fiduciary Net Position	<u>186,239,714</u>
Net Pension Liability	\$ 57,566,834
Plan Fiduciary Net Position as a Percentage	
of Total Pension Liability	76.39%
Net Pension Liability as a Percentage	
of Covered Payroll	351.41%
Development of the Single Discount Rate	
Single Discount Rate	6.25%
Long-Term Expected Rate of Investment Return	6.25%
Long-Term Municipal Bond Rate ⁽²⁾	3.97%
Last year ending June 30 in the 2025 to 2124 projection period	
for which projected benefit payments are fully funded	2124
Total Pension Expense	\$ 10,058,886
Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses	
	Deferred Outflows Deferred Inflows
	of Resources of Resources
Difference between expected and actual experience	\$ 1,820,366
Changes in assumptions	\$ 3,241,170
Net difference between projected and actual earnings	
on pension plan investments	14,084,371
Total	\$ 19,145,907 \$ 19,474,465

(1) The amount provided represents the annual pays for members active on the valuation date increased with one year's pay growth, and does not necessarily represent Covered Payroll as defined in GASB Statements No. 67 and 68.

(2) Source: "20-Year Municipal Go AA Index" is the Fidelity Index, general obligation, 20 years to maturity, mixed quality. In describing this index, Fidelity notes that the municipal curves are constructed using option adjusted analytics of a diverse population of over 10,000 tax exempt securities. The rate shown is as of June 30, 2024, the most recent date 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 the City of Battle Creek Police and Fire Retirement System subsequent to the measurement date of June 30, 2024.

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

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

Notes to Financial Statements

GASB Statement No. 68 requires the notes 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;
- Annual money-weighted rate of return; and
- A description of the terms of the plan's Deferred Retirement Option Program (DROP) and the total DROP balance for those members currently participating in the DROP.

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.

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 6.25% on the actuarial value of assets), then the following outcomes are expected:

1. The employer normal cost is sufficient to cover the cost of benefits accruing each year;
2. The Unfunded Actuarial Accrued Liabilities (UAAL) will continue to be amortized; and
3. The funded status of the Retirement System will continue to increase gradually towards a 100% funded ratio.

The Board's 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. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. 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, 2023 and a measurement date of June 30, 2024.

Roll-Forward Methodology

The June 30, 2023 Total Pension Liability was rolled-forward to the June 30, 2024 measurement date by applying one year of Service Cost (increases Total Pension Liability), benefit payments and refunds during the year (reduces Total Pension Liability), and an interest rate adjustment. A full year of interest was applied to the beginning of year Total Pension Liability and one-half year of interest was applied to the Service Cost and benefit payments.

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 6.25%; the municipal bond rate is 3.97% (based on the weekly rate closest to but not later than the measurement date of the Fidelity Index, general obligation, 20 years to maturity, mixed quality); and the resulting Single Discount Rate is 6.25%.

Benefit Changes

There were no benefit changes for the June 30, 2024 measurement date.

Assumption and Method Changes

There were no assumption or method changes for the June 30, 2024 measurement date.

SECTION B

FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Battle Creek Police and Fire Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Statement of Pension Expense under GASB Statement No. 68

Fiscal Year Ended June 30, 2024

A. Expense

1. Service Cost	\$ 5,015,797
2. Interest on the Total Pension Liability	14,524,313
3. Current Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	(1,965,479)
5. Projected Earnings on Plan Investments (made negative for addition here)	(10,378,893)
6. Pension Plan Administrative Expense	217,278
7. Other Changes in Plan Fiduciary Net Position	86,009
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	4,412,774
9. Recognition of Outflow (Inflow) of Resources due to Assets	<u>(1,852,913)</u>
10. Total Pension Expense	\$ 10,058,886

Statement of Outflows and Inflows Arising from the Current Reporting Period Fiscal Year Ended June 30, 2024

A. Outflows (Inflows) of Resources Due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 1,022,782
2. Assumption Changes (gains) or losses	\$ -
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	4.3706
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	\$ 234,014
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	<hr/> \$ 234,014
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	\$ 788,768
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	<hr/> \$ 788,768

B. Outflows (Inflows) of Resources Due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (12,534,871)
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	\$ (2,506,974)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (10,027,897)

Statement of Outflows and Inflows Arising from the Current and Prior Reporting Periods Fiscal Year Ended June 30, 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	\$ 5,515,698	\$ 1,102,924	\$ 4,412,774
2. Due to Assets	7,181,730	9,034,643	(1,852,913)
3. Total	\$ 12,697,428	\$ 10,137,567	\$ 2,559,861

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	\$ 860,178	\$ 1,055,597	\$ (195,419)
2. Assumption Changes	4,655,520	47,327	4,608,193
3. Net Difference between projected and actual earnings on pension plan investments	7,181,730	9,034,643	(1,852,913)
4. Total	\$ 12,697,428	\$ 10,137,567	\$ 2,559,861

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	\$ 1,820,366	\$ 128,069	\$ 1,692,297
2. Assumption Changes	3,241,170	-	3,241,170
3. Net Difference between projected and actual earnings on pension plan investments	14,084,371	19,346,396	(5,262,025)
4. Total	\$ 19,145,907	\$ 19,474,465	\$ (328,558)

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

Year Ending June 30	Net Deferred Outflows of Resources
2025	\$ 1,962,578
2026	3,797,490
2027	(3,668,377)
2028	(2,420,249)
2029	-
Thereafter	-
Total	\$ (328,558)

Recognition of Deferred Outflows and Inflows of Resources

Measurement Date – June 30, 2024

Reporting Date – June 30, 2024

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) Due to Differences Between Expected and Actual Experience on Liabilities					
2020	\$ (3,167,079)	4.6547	\$ (445,463)	\$ -	0.0000
2021	(2,568,605)	4.2099	(610,134)	(128,069)	0.2099
2022	676,786	3.8950	173,758	155,512	0.8950
2023	1,780,898	3.9365	452,406	876,086	1.9365
2024	1,022,782	4.3706	234,014	788,768	3.3706
Total			\$ (195,419)	\$ 1,692,297	
Deferred Outflow (Inflow) Due to Assumption Changes					
2020	\$ (336,475)	4.6547	\$ (47,327)	\$ -	0.0000
2021	5,687,254	4.2099	1,350,924	283,558	0.2099
2022	12,871,400	3.8950	3,304,596	2,957,612	0.8950
2023	-	3.9365	-	-	1.9365
2024	-	4.3706	-	-	3.3706
Total			\$ 4,608,193	\$ 3,241,170	
Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments					
2020	\$ 697,712	5.0000	\$ 139,544	\$ -	0.0000
2021	(25,661,268)	5.0000	(5,132,254)	(5,132,252)	1.0000
2022	35,210,929	5.0000	7,042,186	14,084,371	2.0000
2023	(6,977,077)	5.0000	(1,395,415)	(4,186,247)	3.0000
2024	(12,534,871)	5.0000	(2,506,974)	(10,027,897)	4.0000
Total			\$ (1,852,913)	\$ (5,262,025)	

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 2124 years. Additionally, the total plan membership (active employees and inactive employees) was 486. 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 4.3706 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 June 30, 2024

Assets

Cash and Deposits	\$ 3,996,008
Receivables	
Employer - 401(h)	\$ -
Accrued Interest and Other Dividends	408,325
Accounts Receivable - Employer Contributions	-
Accounts Receivable - Member Contributions	<u>177,082</u>
Total Receivables	<u><u>\$ 585,407</u></u>
Investments	
Fixed Income	\$ 56,099,801
Open End Mutual Fund - Equities	125,761,026
Real Estate	-
Other	-
Total Investments	<u>\$ 181,860,827</u>
Total Assets	<u>\$ 186,442,242</u>

Liabilities

Payables	
Accounts Payable - Purchase of Investments	\$ -
Accrued Expenses	-
Accounts Payable - 401(h) Contribution	<u>202,528</u>
Total Liabilities	<u>\$ 202,528</u>
Net Position Restricted for Pensions	<u>\$ 186,239,714</u>

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2024

Additions

Contributions

Employer - Pension	\$ 6,140,034
Employer - 401(h)	-
Employee	1,965,479
Other	-
Total Contributions	\$ 8,105,513

Investment Income

Net Appreciation in Fair Value of Investments	\$ 19,486,559
Interest and Dividends	3,551,501
Less Investment Expense	(124,296)
Net Investment Income	\$ 22,913,764

Other

Total Additions	\$ 31,135,796
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Deductions

Benefit Payments, Including Refunds of Employee Contributions	\$ 13,274,908
Pension Plan Administrative Expense	217,278
Health Insurance Premiums Paid For Retired Members	202,528
Other Deductions	-
Total Deductions	\$ 13,694,714

Net Increase in Net Position	\$ 17,441,082
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Net Position Restricted for Pensions

Beginning of Year	\$ 168,798,632
End of Year	\$ 186,239,714

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the Net Pension Liability and Related Ratios

Fiscal Year Ended June 30, 2024

A. Total Pension Liability

1. Service Cost	\$ 5,015,797
2. Interest on the Total Pension Liability	14,524,313
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	1,022,782
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(13,274,908)
7. Net change in Total Pension Liability	\$ 7,287,984
8. Total Pension Liability – Beginning	236,518,564
9. Total Pension Liability – Ending	\$ 243,806,548

B. Plan Fiduciary Net Position

1. Contributions – Employer	\$ 6,140,034
2. Contributions – Employee	1,965,479
3. Net investment income	22,913,764
4. Benefit payments, including refunds of employee contributions	(13,274,908)
5. Pension Plan Administrative Expense	(217,278)
6. Other	(86,009)
7. Net change in Plan Fiduciary Net Position	\$ 17,441,082
8. Plan Fiduciary Net Position – Beginning	168,798,632
9. Plan Fiduciary Net Position – Ending	\$ 186,239,714

C. Net Pension Liability

D. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	76.39%
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E. Covered-Employee Payroll ⁽¹⁾	\$ 16,381,903
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F. Net pension liability as a percentage of covered-employee payroll	351.41%
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⁽¹⁾ The amount provided represents the annual pays for members active on the valuation date increased with one year's pay growth, and does not necessarily represent Covered Payroll as defined in GASB Statements No. 67 and 68.

Schedules of Required Supplementary Information

Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

Fiscal Year Ending June 30,	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability										
Service Cost	\$ 5,015,797	\$ 4,315,718	\$ 4,153,430	\$ 3,784,164	\$ 4,041,341	\$ 4,068,824	\$ 4,070,388	\$ 3,637,644	\$ 3,649,198	\$ 3,460,667
Interest on the Total Pension Liability	14,524,313	14,082,332	13,460,908	12,950,656	12,839,190	12,270,179	11,718,436	11,630,004	11,317,045	10,533,430
Benefit Changes	-	(33,713)	(26,483)	(23,512)	(108,003)	405,223	1,505,727	1,062,436	704,651	-
Difference between expected and actual experience of the Total Pension Liability	1,022,782	1,780,898	676,786	(2,568,605)	(3,167,079)	2,789,999	1,955,535	(5,040,576)	(119,463)	2,043,014
Assumption Changes	-	-	12,871,400	5,687,254	(336,475)	-	6,224,926	-	4,988,870	4,476,292
Benefit Payments and Refunds	(13,274,908)	13,572,258	(12,409,271)	(11,919,837)	(10,931,209)	(10,601,742)	(10,015,645)	(10,375,906)	(9,444,578)	(9,381,779)
Net Change in Total Pension Liability	7,287,984	6,572,977	18,726,770	7,910,120	2,337,765	8,932,483	15,459,367	913,602	11,095,724	11,131,624
Total Pension Liability - Beginning	\$ 236,518,564	\$ 229,945,587	\$ 211,218,817	\$ 203,308,697	\$ 200,970,932	\$ 192,038,449	\$ 176,579,082	\$ 175,665,481	\$ 164,569,757	\$ 153,438,133
Total Pension Liability - Ending (a)	\$ 243,806,548	\$ 236,518,564	\$ 229,945,587	\$ 211,218,817	\$ 203,308,697	\$ 200,970,932	\$ 192,038,449	\$ 176,579,082	\$ 175,665,481	\$ 164,569,757
Plan Fiduciary Net Position										
Employer Contributions	\$ 6,140,034	\$ 6,323,009	\$ 6,368,077	\$ 6,353,070	\$ 5,869,972	\$ 5,544,586	\$ 5,180,487	\$ 4,728,234	\$ 4,664,957	\$ 4,612,446
Employee Contributions	1,965,479	1,922,364	1,725,254	1,593,679	1,580,109	1,473,592	1,475,859	1,233,148	1,077,633	1,166,241
Pension Plan Net Investment Income	22,913,764	16,666,426	(23,276,182)	35,586,493	8,926,870	9,706,959	10,056,835	11,469,432	2,515,535	4,668,612
Benefit Payments and Refunds	(13,274,908)	(13,572,258)	(12,409,271)	(11,919,837)	(10,931,209)	(10,601,742)	(10,015,645)	(10,375,906)	(9,444,578)	(9,381,779)
Pension Plan Administrative Expense	(217,278)	(196,493)	(211,312)	(231,994)	(229,271)	(180,119)	(204,123)	(189,782)	(216,729)	(185,071)
Other	(86,009)	(271,367)	(289,461)	(319,737)	(367,993)	(422,042)	(414,289)	(404,783)	(398,259)	(968,680)
Net Change in Plan Fiduciary Net Position	\$ 17,441,082	\$ 10,871,681	\$ (28,092,895)	\$ 31,061,674	\$ 4,848,478	\$ 5,521,234	\$ 6,079,124	\$ 6,460,343	\$ (1,801,441)	\$ (88,231)
Plan Fiduciary Net Position - Beginning	\$ 168,798,632	\$ 157,926,951	\$ 186,019,846	\$ 154,958,172	\$ 150,109,694	\$ 144,588,460	\$ 138,509,336	\$ 132,048,993	\$ 133,850,434	\$ 133,938,665
Plan Fiduciary Net Position - Ending (b)	\$ 186,239,714	\$ 168,798,632	\$ 157,926,951	\$ 186,019,846	\$ 154,958,172	\$ 150,109,694	\$ 144,588,460	\$ 138,509,336	\$ 132,048,993	\$ 133,850,434
Net Pension Liability - Ending (a) - (b)	\$ 57,566,834	\$ 67,719,932	\$ 72,018,636	\$ 25,198,971	\$ 48,350,525	\$ 50,861,238	\$ 47,449,989	\$ 38,069,746	\$ 43,616,488	\$ 30,719,323
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	76.39 %	71.37 %	68.68 %	88.07 %	76.22 %	74.69 %	75.29 %	78.44 %	75.17 %	81.33 %
Covered-Employee Payroll ⁽¹⁾	\$ 16,381,903	\$ 14,045,794	\$ 13,766,610	\$ 14,616,125	\$ 14,766,506	\$ 14,897,135	\$ 14,718,636	\$ 14,043,138	\$ 14,069,533	\$ 13,495,955
Net Pension Liability as a Percentage of Covered-Employee Payroll	351.41 %	482.14 %	523.14 %	172.41 %	327.43 %	341.42 %	322.38 %	271.09 %	310.01 %	227.62 %
Notes to Schedule:										

⁽¹⁾ Beginning with the FY ending June 30, 2016, the amount provided represents the annual pays for members active on the valuation date increased with one year's pay growth. Prior to 2016, the amount provided represents the annual pays for members active on the valuation date. These amounts do not necessarily represent Covered Payroll as defined in GASB Statement Nos. 67 and 68.

Schedules of Required Supplementary Information

Schedule of the Employers' Net Pension Liability

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll ⁽¹⁾	Net Pension Liability as a % of Covered Payroll
2015	\$164,569,757	\$133,850,434	\$ 30,719,323	81.33%	\$13,495,955	227.62%
2016	175,665,481	132,048,993	43,616,488	75.17%	14,069,533	310.01%
2017	176,579,082	138,509,336	38,069,746	78.44%	14,043,138	271.09%
2018	192,038,449	144,588,460	47,449,989	75.29%	14,718,636	322.38%
2019	200,970,932	150,109,694	50,861,238	74.69%	14,897,135	341.42%
2020	203,308,697	154,958,172	48,350,525	76.22%	14,766,506	327.43%
2021	211,218,817	186,019,846	25,198,971	88.07%	14,616,125	172.41%
2022	229,945,587	157,926,951	72,018,636	68.68%	13,766,610	523.14%
2023	236,518,564	168,798,632	67,719,932	71.37%	14,045,794	482.14%
2024	243,806,548	186,239,714	57,566,834	76.39%	16,381,903	351.41%

⁽¹⁾ Beginning with the FY ending June 30, 2016, the amount provided represents the annual pays for members active on the valuation date increased with one year's pay growth. Prior to 2016, the amount provided represents the annual pays for members active on the valuation date. These amounts do not necessarily represent Covered Payroll as defined in GASB Statements No. 67 and 68.

Schedule of Contributions

FY Ending June 30,	Actuarially Determined Contribution		Contribution Deficiency (Excess)		Actual Contribution as a % of Covered Payroll	
	Actual Contribution	Contribution	(Excess)	Covered Payroll ⁽¹⁾	Covered Payroll	
2015	\$ 3,594,446	\$ 3,594,446	\$ -	\$ 13,495,955		26.63%
2016	4,164,957	4,164,957	-	14,069,533		29.60%
2017	4,228,234	4,228,234	-	14,043,138		30.11%
2018	4,680,487	4,680,487	-	14,718,636		31.80%
2019	5,060,534	5,060,534	-	14,897,135		33.97%
2020	5,441,963	5,441,963	-	14,766,506		36.85%
2021	6,021,227	6,021,227	-	14,616,125		41.20%
2022	6,063,482	6,063,482	-	13,766,610		44.04%
2023	6,051,642	6,051,642	-	14,045,794		43.09%
2024	6,140,034	6,140,034	-	16,381,903		37.48%

⁽¹⁾ Beginning with the FY ending June 30, 2016, the amount provided represents the annual pays for members active on the valuation date increased with one year's pay growth. Prior to 2016, the amount provided represents the annual pays for members active on the valuation date. These amounts do not necessarily represent Covered Payroll as defined in GASB Statements No. 67 and 68.

Notes to Schedule of Contributions

Valuation Date:	June 30, 2022
Notes	Actuarially determined contribution amounts are calculated as of June 30 of each year, which is 12 months prior to the beginning of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates for the Fiscal Year Ending

June 30, 2024*:

Actuarial Cost Method	Entry-Age Normal
Amortization Method	Layered, Level Percent-of-Payroll
Remaining Amortization Period	Closed 15 years for benefit improvements. Closed 20 years for assumption changes, method changes and experience deviations. Closed 25 years for all other liabilities as of June 30, 2022.
Asset Valuation Method	5-Year smoothed market, with 20% corridor.
Wage Inflation	3.50%
Salary Increases	4.25% to 15.75% including inflation.
Investment Rate of Return	6.25%
Retirement Age	Age and service-based tables of rates that are specific to the type of eligibility condition. Last updated for the 2022 valuation.
Mortality	PubS-2010 Standard Mortality Tables with generation mortality improvement using projection scale MP-2021.

Other Information:

Notes

* Based on valuation assumptions used in the June 30, 2022 actuarial valuation.

SECTION D

NOTES TO FINANCIAL STATEMENTS

Single Discount Rate

A Single Discount Rate of 6.25% 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 6.25%. 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 6.25%, 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 the Net Pension Liability to the Single Discount Rate Assumption

	100 Basis Point		Current Single		100 Basis Point	
	Decrease		Discount Rate		Increase	
	5.25%	6.25%	6.25%	7.25%		
Total Pension Liability	\$ 274,680,204		\$ 243,806,548		\$ 218,496,621	
Plan Fiduciary Net Position		\$ 186,239,714		\$ 186,239,714		\$ 186,239,714
Net Pension Liability/(Asset)	\$ 88,440,490		\$ 57,566,834		\$ 32,256,907	

Summary of Population Statistics as of June 30, 2023

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	293
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	10
Active Plan Members	183
Total Plan Members	486

SECTION E

SUMMARY OF BENEFITS

Brief Summary of Act 345 Benefit Conditions Evaluated (Updated to June 30, 2024)

ELIGIBILITY	AMOUNT
SERVICE RETIREMENT	
The benefit amounts attributable to regular retirements and the conditions under which such benefits	
may be paid are described in tabular form on page 20.	
DEFERRED RETIREMENT	
Termination of employment after 10 or more years of service.	Computed as service retirement but based upon service, Average Final Compensation (AFC) and benefit in effect at termination. Benefit begins at date retirement would have occurred had member remained in employment.
DEATH AFTER RETIREMENT SURVIVOR'S PENSION	
Payable to a surviving spouse, if any, upon the death of a retired member who was receiving a straight life pension which was effective July 1, 1975 or later.	Spouse's pension equals 60% of the straight life pension the deceased retiree was receiving.
NON-DUTY DEATH-IN-SERVICE SURVIVOR'S PENSION	
Payable to a surviving spouse, if any, upon the death of a member with 20 or more years of service, or a Police member with 10 or more years of service.	Accrued straight life pension actuarially reduced in accordance with an Option I election.
DUTY DEATH-IN-SERVICE SURVIVOR'S PENSION	
Payable upon the expiration of Worker's Compensation to the survivors of a member who died in the line of duty.	Same amount that was paid by Worker's Compensation.
NON-DUTY DISABILITY	
Payable upon the total and permanent disability of a member with 5 or more years-of-service.	To age 55: 1.5% of AFC times years of service. At age 55: Same as Service Retirement Pension.
DUTY DISABILITY	
Payable upon the total and permanent disability of a member in the line of duty.	To age 55: 50% of AFC. At age 55: Same as Service Retirement Pension with service credit from date of disability to age 55.
MEMBER CONTRIBUTIONS	
Amounts are described on page 20.	

Summary of Benefit Provisions as of June 30, 2024

Group	No. People	GRS Code	Eligibility	Benefit Multiplier*	Maximum Benefit	Years in FAC	Member Contribution Rate
Police:							
Sergeants - POLC	17	91	25 yrs. of service or age 60	3.0%/1.0%	80% of FAC	3	13.22%
Lieutenants	6	90	25 yrs. of service or age 60	3.0%/1.0%	80% of FAC	3	12.50%
POLC	91	92	25 yrs. of service or age 60	3.0%/1.0%	80% of FAC	5	10.75%
Non-Represented	2	95,97	25 yrs. of service or age 60	3.0%/1.0%	80% of FAC	3	10.00%
Fire:							
OSP	3	94	25 yrs. of service or age 60	3.0%/0.0%	75% of FAC	3	11.65%
IAFF	74	93	25 yrs. of service or age 60	3.0%/0.0%	75% of FAC	3	13.04%
Non-Represented	1	98	25 yrs. of service or age 60	3.0%/1.0%	80% of FAC	3	10.00%
Total	194						

* First multiplier applies to the first 25 years of service. Second multiplier applies to service greater than 25 years.

Note: Person counts are as of the June 30, 2023 valuation date.

None of the above groups are covered by Social Security.

Employee contributions are made on a pre-tax basis.

Summary of Benefit Provisions as of June 30, 2024

DEFERRED RETIREMENT OPTION PLAN (DROP)

Effective April 2, 2015 for Firefighter OSP Chiefs and July 1, 2016 for Police Lieutenants, Firefighter IAFF, July 1, 2020 for Non-Represented Command Police Personnel, July 1, 2021 for Non-Represented Command Fire Personnel, and July 1, 2022 for Police Sergeants members with credited service between 25 and 30 years may participate in the Deferred Retirement Option Plan for a maximum participation period of five years (two years for Non-Represented Command Personnel). For Police Sergeants, the DROP expires on June 30, 2024. The benefit amount is the participant's accrued benefit at the date of DROP election. DROP benefits are credited monthly and DROP interest is credited quarterly to a DROP account at the rate of 2% annually. Employer and employee contributions will continue while the member participates in the DROP. Employer and employee contributions are not deposited in the DROP account. Upon actual retirement, the participant may elect a lump sum distribution of the DROP account or direct rollover to a qualified plan.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Cost Method and Actuarial Assumptions

This report complements the June 30, 2023 actuarial valuation report and the Actuarial Experience Study report for the five-year period ending June 30, 2021. The information herein should be considered along with the information from those two reports, especially for additional discussions of the nature of actuarial calculations and for more information related to valuation methods and actuarial assumptions.

Assets - The value of assets used for GASB Statement Nos. 67 and No. 68 reporting purposes was the fair market value of assets.

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 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 6.25%; the municipal bond rate is 3.97%; and the resulting SDR is 6.25%.

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).

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

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost and Expense Contributions	UAL Contributions	Total Contributions
0	\$ 16,381,903				
1	16,252,089	\$ 1,942,334	\$ 3,204,831	\$ 3,587,869	\$ 8,735,034
2	16,022,452	1,913,344	3,161,139	3,582,231	8,656,715
3	15,813,908	1,888,107	3,121,718	3,944,201	8,954,026
4	15,649,651	1,868,243	3,091,415	3,798,433	8,758,091
5	15,319,488	1,828,051	3,023,453	3,729,974	8,581,477
6	14,870,206	1,774,414	2,930,259	3,860,523	8,565,196
7	14,541,534	1,736,113	2,862,320	3,995,641	8,594,074
8	14,156,692	1,691,475	2,785,388	4,135,488	8,612,351
9	13,789,363	1,648,121	2,712,518	4,280,231	8,640,870
10	13,412,523	1,601,760	2,635,786	4,430,039	8,667,584
11	12,905,901	1,538,822	2,534,921	4,585,090	8,658,833
12	12,367,852	1,472,160	2,431,170	4,745,568	8,648,898
13	11,931,599	1,418,079	2,347,733	4,911,662	8,677,474
14	11,336,752	1,341,685	2,231,948	5,083,570	8,657,203
15	10,298,893	1,212,514	2,028,743	4,583,410	7,824,667
16	9,294,750	1,093,651	1,832,463	4,704,201	7,630,315
17	8,545,921	1,005,180	1,684,913	4,850,441	7,540,534
18	7,895,598	927,629	1,555,505	5,020,206	7,503,340
19	7,049,556	827,220	1,387,895	5,195,913	7,411,028
20	6,277,652	735,289	1,235,022	5,122,049	7,092,359
21	5,714,245	668,065	1,123,154	5,242,052	7,033,272
22	5,023,248	586,266	986,117	5,686,610	7,258,993
23	4,120,573	482,902	807,920	5,414,874	6,705,696
24	2,665,290	317,362	521,938	6,169,127	7,008,427
25	1,372,228	169,983	268,090	-	438,073
26	940,964	119,564	183,539	-	303,103
27	726,093	93,278	141,366	-	234,645
28	480,047	61,808	93,338	-	155,145
29	161,930	20,802	31,493	-	52,295
30	-	-	-	-	-
31	-	-	-	-	-
32	-	-	-	-	-
33	-	-	-	-	-
34	-	-	-	-	-
35	-	-	-	-	-
36	-	-	-	-	-
37	-	-	-	-	-
38	-	-	-	-	-
39	-	-	-	-	-
40	-	-	-	-	-
41	-	-	-	-	-
42	-	-	-	-	-
43	-	-	-	-	-
44	-	-	-	-	-
45	-	-	-	-	-
46	-	-	-	-	-
47	-	-	-	-	-
48	-	-	-	-	-
49	-	-	-	-	-
50	-	-	-	-	-

Single Discount Rate Development

Projection of Contributions (Concluded)

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost and Expense Contributions	UAL Contributions	Total Contributions
51	-	-	-	-	-
52	-	-	-	-	-
53	-	-	-	-	-
54	-	-	-	-	-
55	-	-	-	-	-
56	-	-	-	-	-
57	-	-	-	-	-
58	-	-	-	-	-
59	-	-	-	-	-
60	-	-	-	-	-
61	-	-	-	-	-
62	-	-	-	-	-
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

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	\$ 186,239,714	\$ 8,735,034	\$ 14,140,222	\$ 216,153	\$ 11,466,977	\$ 192,085,351
2	192,085,351	8,656,715	14,720,325	213,099	11,812,160	197,620,801
3	197,620,801	8,954,026	15,185,954	210,325	12,153,031	203,331,579
4	203,331,579	8,758,091	15,732,940	208,140	12,487,157	208,635,747
5	208,635,747	8,581,477	16,787,139	203,749	12,780,923	213,007,259
6	213,007,259	8,565,196	16,515,178	197,774	13,062,195	217,921,697
7	217,921,697	8,594,074	16,909,512	193,402	13,358,235	222,771,092
8	222,771,092	8,612,351	17,152,990	188,284	13,654,548	227,696,717
9	227,696,717	8,640,870	17,005,292	183,399	13,967,974	233,116,870
10	233,116,870	8,667,584	17,454,451	178,387	14,293,886	238,445,502
11	238,445,502	8,658,833	17,958,173	171,648	14,611,361	243,585,876
12	243,585,876	8,648,898	18,324,084	164,492	14,921,287	248,667,484
13	248,667,484	8,677,474	18,447,824	158,690	15,236,138	253,974,582
14	253,974,582	8,657,203	19,415,429	150,779	15,537,671	258,603,249
15	258,603,249	7,824,667	20,564,355	136,975	15,766,406	261,492,991
16	261,492,991	7,630,315	19,901,580	123,620	15,961,842	265,059,949
17	265,059,949	7,540,534	20,673,977	113,661	16,158,549	267,971,393
18	267,971,393	7,503,340	21,007,656	105,011	16,329,366	270,691,432
19	270,691,432	7,411,028	22,102,671	93,759	16,463,173	272,369,203
20	272,369,203	7,092,359	21,694,257	83,493	16,571,112	274,254,924
21	274,254,924	7,033,272	22,576,597	75,999	16,660,226	275,295,825
22	275,295,825	7,258,993	22,099,679	66,809	16,747,190	277,135,520
23	277,135,520	6,705,696	22,237,530	54,804	16,841,269	278,390,151
24	278,390,151	7,008,427	23,929,901	35,448	16,877,511	278,310,741
25	278,310,741	438,073	24,099,760	18,251	16,665,638	271,296,442
26	271,296,442	303,103	23,867,619	12,515	16,230,411	263,949,823
27	263,949,823	234,645	23,687,120	9,657	15,774,784	256,262,474
28	256,262,474	155,145	24,081,006	6,385	15,279,856	247,610,085
29	247,610,085	52,295	23,730,168	2,154	14,746,844	238,676,903
30	238,676,903	-	22,357,234	-	14,229,231	230,548,899
31	230,548,899	-	21,877,099	-	13,736,008	222,407,808
32	222,407,808	-	21,388,391	-	13,242,230	214,261,647
33	214,261,647	-	20,890,953	-	12,748,404	206,119,099
34	206,119,099	-	20,384,830	-	12,255,072	197,989,340
35	197,989,340	-	19,870,306	-	11,762,797	189,881,832
36	189,881,832	-	19,346,466	-	11,272,200	181,807,565
37	181,807,565	-	18,814,289	-	10,783,937	173,777,213
38	173,777,213	-	18,274,214	-	10,298,661	165,801,660
39	165,801,660	-	17,726,586	-	9,817,043	157,892,117
40	157,892,117	-	17,171,871	-	9,339,769	150,060,016
41	150,060,016	-	16,610,563	-	8,867,538	142,316,990
42	142,316,990	-	16,043,199	-	8,401,060	134,674,850
43	134,674,850	-	15,470,274	-	7,941,059	127,145,635
44	127,145,635	-	14,892,241	-	7,488,273	119,741,666
45	119,741,666	-	14,309,555	-	7,043,457	112,475,568
46	112,475,568	-	13,722,654	-	6,607,389	105,360,303
47	105,360,303	-	13,132,050	-	6,180,862	98,409,115
48	98,409,115	-	12,538,337	-	5,764,685	91,635,463
49	91,635,463	-	11,942,280	-	5,359,676	85,052,858
50	85,052,858	-	11,344,790	-	4,966,652	78,674,720

Single Discount Rate Development

Projection of Plan Fiduciary Net Position (Concluded)

Year	Projected Beginning Plan Net Position		Projected Total Contributions		Projected Benefit Payments		Projected Administrative Expenses	Projected Investment Earnings at 6.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)			
51	\$ 78,674,720	\$ -	\$ 10,746,855	\$ -	\$ 4,586,420	\$ 72,514,286			
52	72,514,286	-	10,149,669	-	4,219,773	66,584,389			
53	66,584,389	-	9,554,640	-	3,867,467	60,897,217			
54	60,897,217	-	8,963,390	-	3,530,215	55,464,041			
55	55,464,041	-	8,377,811	-	3,208,664	50,294,894			
56	50,294,894	-	7,799,932	-	2,903,377	45,398,339			
57	45,398,339	-	7,231,975	-	2,614,822	40,781,187			
58	40,781,187	-	6,676,309	-	2,343,351	36,448,229			
59	36,448,229	-	6,135,218	-	2,089,194	32,402,205			
60	32,402,205	-	5,610,915	-	1,852,454	28,643,745			
61	28,643,745	-	5,105,479	-	1,633,106	25,171,372			
62	25,171,372	-	4,620,712	-	1,431,002	21,981,662			
63	21,981,662	-	4,158,308	-	1,245,876	19,069,229			
64	19,069,229	-	3,719,765	-	1,077,346	16,426,811			
65	16,426,811	-	3,306,256	-	924,921	14,045,476			
66	14,045,476	-	2,918,803	-	788,012	11,914,685			
67	11,914,685	-	2,558,147	-	665,937	10,022,475			
68	10,022,475	-	2,224,723	-	557,936	8,355,688			
69	8,355,688	-	1,918,803	-	463,177	6,900,061			
70	6,900,061	-	1,640,299	-	380,771	5,640,533			
71	5,640,533	-	1,388,850	-	309,790	4,561,473			
72	4,561,473	-	1,163,955	-	249,270	3,646,787			
73	3,646,787	-	964,821	-	198,231	2,880,197			
74	2,880,197	-	790,391	-	155,687	2,245,494			
75	2,245,494	-	639,392	-	120,665	1,726,767			
76	1,726,767	-	510,329	-	92,217	1,308,655			
77	1,308,655	-	401,525	-	69,433	976,563			
78	976,563	-	311,122	-	51,460	716,900			
79	716,900	-	237,160	-	37,507	517,247			
80	517,247	-	177,658	-	26,860	366,449			
81	366,449	-	130,648	-	18,882	254,684			
82	254,684	-	94,217	-	13,018	173,485			
83	173,485	-	66,562	-	8,794	115,717			
84	115,717	-	46,019	-	5,816	75,514			
85	75,514	-	31,105	-	3,762	48,172			
86	48,172	-	20,533	-	2,379	30,018			
87	30,018	-	13,227	-	1,469	18,260			
88	18,260	-	8,309	-	886	10,837			
89	10,837	-	5,086	-	521	6,272			
90	6,272	-	3,031	-	299	3,539			
91	3,539	-	1,759	-	167	1,948			
92	1,948	-	993	-	91	1,045			
93	1,045	-	547	-	48	547			
94	547	-	294	-	25	278			
95	278	-	154	-	13	136			
96	136	-	78	-	6	64			
97	64	-	39	-	3	27			
98	27	-	19	-	1	9			
99	9	-	14	-	0	-			
100	-	-	-	-	-	-			

Single Discount Rate Development

Present Values of Projected Benefit Payments

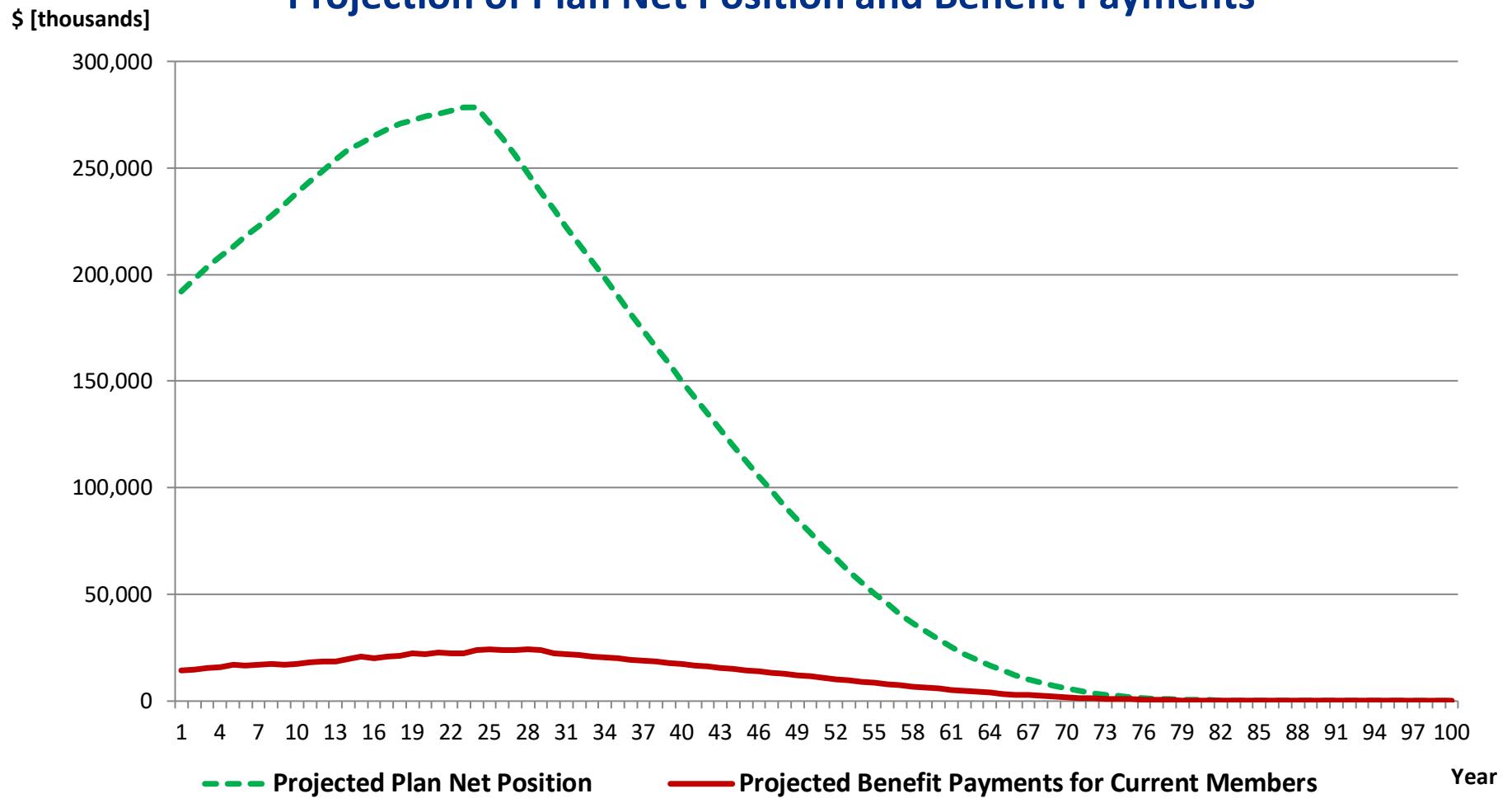
Year	Projected Beginning	Projected Benefit	Funded Portion of	Unfunded Portion of	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of	Present Value of	Present Value of
	Plan Net Position	Payments	Benefit Payments	Benefit Payments		Unfunded Benefit Payments using Municipal Bond Rate (vf)	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)	
1	\$ 186,239,714	\$ 14,140,222	\$ 14,140,222	\$ -	\$ 13,718,030	\$ -	\$ 13,718,030	
2	192,085,351	14,720,325	14,720,325	-	13,440,765	-	13,440,765	
3	197,620,801	15,185,954	15,185,954	-	13,050,277	-	13,050,277	
4	203,331,579	15,732,940	15,732,940	-	12,725,024	-	12,725,024	
5	208,635,747	16,787,139	16,787,139	-	12,778,988	-	12,778,988	
6	213,007,259	16,515,178	16,515,178	-	11,832,434	-	11,832,434	
7	217,921,697	16,909,512	16,909,512	-	11,402,313	-	11,402,313	
8	222,771,092	17,152,990	17,152,990	-	10,886,112	-	10,886,112	
9	227,696,717	17,005,292	17,005,292	-	10,157,530	-	10,157,530	
10	233,116,870	17,454,451	17,454,451	-	9,812,536	-	9,812,536	
11	238,445,502	17,958,173	17,958,173	-	9,501,853	-	9,501,853	
12	243,585,876	18,324,084	18,324,084	-	9,125,139	-	9,125,139	
13	248,667,484	18,447,824	18,447,824	-	8,646,362	-	8,646,362	
14	253,974,582	19,415,429	19,415,429	-	8,564,585	-	8,564,585	
15	258,603,249	20,564,355	20,564,355	-	8,537,790	-	8,537,790	
16	261,492,991	19,901,580	19,901,580	-	7,776,586	-	7,776,586	
17	265,059,949	20,673,977	20,673,977	-	7,603,202	-	7,603,202	
18	267,971,393	21,007,656	21,007,656	-	7,271,452	-	7,271,452	
19	270,691,432	22,102,671	22,102,671	-	7,200,446	-	7,200,446	
20	272,369,203	21,694,257	21,694,257	-	6,651,667	-	6,651,667	
21	274,254,924	22,576,597	22,576,597	-	6,515,012	-	6,515,012	
22	275,295,825	22,099,679	22,099,679	-	6,002,246	-	6,002,246	
23	277,135,520	22,237,530	22,237,530	-	5,684,410	-	5,684,410	
24	278,390,151	23,929,901	23,929,901	-	5,757,194	-	5,757,194	
25	278,310,741	24,099,760	24,099,760	-	5,456,997	-	5,456,997	
26	271,296,442	23,867,619	23,867,619	-	5,086,525	-	5,086,525	
27	263,949,823	23,687,120	23,687,120	-	4,751,113	-	4,751,113	
28	256,262,474	24,081,006	24,081,006	-	4,545,993	-	4,545,993	
29	247,610,085	23,730,168	23,730,168	-	4,216,247	-	4,216,247	
30	238,676,903	22,357,234	22,357,234	-	3,738,646	-	3,738,646	
31	230,548,899	21,877,099	21,877,099	-	3,443,159	-	3,443,159	
32	222,407,808	21,388,391	21,388,391	-	3,168,229	-	3,168,229	
33	214,261,647	20,890,953	20,890,953	-	2,912,512	-	2,912,512	
34	206,119,099	20,384,830	20,384,830	-	2,674,777	-	2,674,777	
35	197,989,340	19,870,306	19,870,306	-	2,453,896	-	2,453,896	
36	189,881,832	19,346,466	19,346,466	-	2,248,663	-	2,248,663	
37	181,807,565	18,814,289	18,814,289	-	2,058,171	-	2,058,171	
38	173,777,213	18,274,214	18,274,214	-	1,881,497	-	1,881,497	
39	165,801,660	17,726,586	17,726,586	-	1,717,754	-	1,717,754	
40	157,892,117	17,171,871	17,171,871	-	1,566,118	-	1,566,118	
41	150,060,016	16,610,563	16,610,563	-	1,425,812	-	1,425,812	
42	142,316,990	16,043,199	16,043,199	-	1,296,105	-	1,296,105	
43	134,674,850	15,470,274	15,470,274	-	1,176,300	-	1,176,300	
44	127,145,635	14,892,241	14,892,241	-	1,065,740	-	1,065,740	
45	119,741,666	14,309,555	14,309,555	-	963,803	-	963,803	
46	112,475,568	13,722,654	13,722,654	-	869,904	-	869,904	
47	105,360,303	13,132,050	13,132,050	-	783,496	-	783,496	
48	98,409,115	12,538,337	12,538,337	-	704,069	-	704,069	
49	91,635,463	11,942,280	11,942,280	-	631,152	-	631,152	
50	85,052,858	11,344,790	11,344,790	-	564,305	-	564,305	

Single Discount Rate Development

Present Values of Projected Benefit Payments (Concluded)

Year	Projected Beginning	Projected Benefit	Funded Portion of	Unfunded Portion of	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)
	Plan Net Position	Payments	Benefit Payments	Benefit Payments		(f)=(d)*v^(a-5)	(g)=(e)*vf^(a-5)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^(a-5)	(g)=(e)*vf^(a-5)	(h)=(c)/(1+sdr)^(a-5)
51	\$ 78,674,720	\$ 10,746,855	\$ 10,746,855	\$ -	\$ 503,118	\$ -	\$ 503,118
52	72,514,286	10,149,669	10,149,669	-	447,210	-	447,210
53	66,584,389	9,554,640	9,554,640	-	396,228	-	396,228
54	60,897,217	8,963,390	8,963,390	-	349,844	-	349,844
55	55,464,041	8,377,811	8,377,811	-	307,754	-	307,754
56	50,294,894	7,799,932	7,799,932	-	269,671	-	269,671
57	45,398,339	7,231,975	7,231,975	-	235,327	-	235,327
58	40,781,187	6,676,309	6,676,309	-	204,467	-	204,467
59	36,448,229	6,135,218	6,135,218	-	176,843	-	176,843
60	32,402,205	5,610,915	5,610,915	-	152,217	-	152,217
61	28,643,745	5,105,479	5,105,479	-	130,357	-	130,357
62	25,171,372	4,620,712	4,620,712	-	111,040	-	111,040
63	21,981,662	4,158,308	4,158,308	-	94,050	-	94,050
64	19,069,229	3,719,765	3,719,765	-	79,182	-	79,182
65	16,426,811	3,306,256	3,306,256	-	66,240	-	66,240
66	14,045,476	2,918,803	2,918,803	-	55,038	-	55,038
67	11,914,685	2,558,147	2,558,147	-	45,399	-	45,399
68	10,022,475	2,224,723	2,224,723	-	37,160	-	37,160
69	8,355,688	1,918,803	1,918,803	-	30,165	-	30,165
70	6,900,061	1,640,299	1,640,299	-	24,270	-	24,270
71	5,640,533	1,388,850	1,388,850	-	19,340	-	19,340
72	4,561,473	1,163,955	1,163,955	-	15,255	-	15,255
73	3,646,787	964,821	964,821	-	11,901	-	11,901
74	2,880,197	790,391	790,391	-	9,176	-	9,176
75	2,245,494	639,392	639,392	-	6,987	-	6,987
76	1,726,767	510,329	510,329	-	5,248	-	5,248
77	1,308,655	401,525	401,525	-	3,886	-	3,886
78	976,563	311,122	311,122	-	2,834	-	2,834
79	716,900	237,160	237,160	-	2,033	-	2,033
80	517,247	177,658	177,658	-	1,434	-	1,434
81	366,449	130,648	130,648	-	992	-	992
82	254,684	94,217	94,217	-	673	-	673
83	173,485	66,562	66,562	-	448	-	448
84	115,717	46,019	46,019	-	291	-	291
85	75,514	31,105	31,105	-	185	-	185
86	48,172	20,533	20,533	-	115	-	115
87	30,018	13,227	13,227	-	70	-	70
88	18,260	8,309	8,309	-	41	-	41
89	10,837	5,086	5,086	-	24	-	24
90	6,272	3,031	3,031	-	13	-	13
91	3,539	1,759	1,759	-	7	-	7
92	1,948	993	993	-	4	-	4
93	1,045	547	547	-	2	-	2
94	547	294	294	-	1	-	1
95	278	154	154	-	0	-	0
96	136	78	78	-	0	-	0
97	64	39	39	-	0	-	0
98	27	19	19	-	0	-	0
99	14	14	14	-	0	-	0
100	-	-	-	-	-	-	-
					Totals	\$ 289,839,482	\$ 289,839,482

Projection of Plan Net Position and Benefit Payments



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Accrued Liability (AAL)	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."
Actuarial Assumptions	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.
Actuarial Cost Method	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.
Actuarial Equivalent	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.
Actuarial Gain (Loss)	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.
Actuarial Present Value (APV)	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.
Actuarial Valuation	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.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	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

Amortization Method

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).

Amortization Payment

The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.

Cost-of-Living Adjustments

Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)

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.

Covered-Employee Payroll

The payroll of employees that are provided with pensions through the pension plan.

Deferred Inflows and Outflows

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.

Deferred Retirement Option Program (DROP)

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.

Discount Rate

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:

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
2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

Glossary of Terms

Entry Age Actuarial Cost Method (EAN)	The EAN is a cost 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.
Fiduciary Net Position	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Long-Term Expected Rate of Return	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.
Money-Weighted Rate of Return	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.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Municipal Bond Rate	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.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.
Non-Employer Contributing Entities	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, plan members are not considered non-employer contributing entities.
Normal Cost	The portion of the actuarial present value allocated to a valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of 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.
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: <ol style="list-style-type: none">1. Service Cost2. Interest on the Total Pension Liability3. Current Period Benefit Changes4. Employee Contributions (made negative for addition here)5. Projected Earnings on Plan Investments (made negative for addition here)6. Pension Plan Administrative Expense7. Other Changes in Plan Fiduciary Net Position8. Recognition of Outflow (Inflow) of Resources due to Liabilities9. 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.