

Arlington Heights Park Dist Regular

GASB Statement No. 68 Employer Reporting

Accounting Schedules

December 31, 2022



Table of Contents

Page

Certification Letter

Section A Executive Summary

Executive Summary.....	1
Discussion.....	2 - 4
Other Observations.....	5 - 6

Section B Financial Statements

Pension Expense/(Income) Under GASB Statement No. 68	7
Statement of Outflows and Inflows Arising from Current Reporting Period	8
Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods	9
Recognition of Deferred Outflows and Inflows of Resources.....	10
Schedule of Changes in Net Pension Liability and Related Ratios Current Period	11
Sensitivity of Net Pension Liability/(Asset) to the Single Discount Rate Assumption	11
Multiyear Schedule of Changes in Net Pension Liability and Related Ratios	12
Multiyear Schedule of Contributions.....	13
Notes to Schedule of Contributions.....	14
Development of Market Value of Assets	15
Schedule of Contributions	15
Summary of Actuarial Methods and Assumptions Used in the Calculation of the Total Pension Liability	16

Section C Calculation of the Single Discount Rate

Calculation of the Single Discount Rate.....	17
Projection of Contributions.....	18 - 19
Projection of Plan Fiduciary Net Position	20 - 21
Present Values of Projected Benefits.....	22 - 23
Projection of Plan Net Position and Benefit Payments	24

Section D Glossary of Terms..... 25 - 28



March 28, 2023

Arlington Heights Park Dist
Illinois Municipal Retirement Fund

Ladies and Gentlemen:

The accounting schedules submitted in this report are required under the Governmental Accounting Standards Board (GASB) Statement No. 68 "Accounting and Financial Reporting for Pensions."

Our calculations for this report were prepared for the purpose of complying with the requirements of GASB Statement No. 68. These calculations have been made on a basis that is consistent with our understanding of these accounting standards. These results are subject to review by the fund's auditor and may be revised.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 68. The Net Pension Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net Pension Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 68 may produce significantly different results. This report may be provided to parties other than Arlington Heights Park Dist only in its entirety and only with the permission of Arlington Heights Park Dist. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by the Illinois Municipal Retirement Fund (IMRF), concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different than ours, please let us know and do not use or distribute this report until those differences have been resolved to your satisfaction. This information was checked for internal consistency, but it was not audited.

This report complements the actuarial valuation report that was provided to the IMRF and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 2022 for additional discussions 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 in this report is accurate, and fairly represents the GASB Statement No. 68 information related to Arlington Heights Park Dist. 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. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact IMRF.

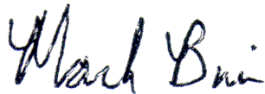
This report was prepared during the recent COVID-19 pandemic, which is likely to influence demographic, economic, and health care experience, at least in the short term. Results in this report are developed based on available data without adjustment. We will continue to monitor these developments and their impact on the Plan. Actual experience will be reflected in each subsequent report, as experience emerges.

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.

Mark Buis and Francois Pieterse are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Mark Buis, FSA, EA, FCA, MAAA



Francois Pieterse, ASA, FCA, MAAA

MB/FP:bd



SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2022

Actuarial Valuation Date	December 31, 2022
Measurement Date of the Net Pension Liability	December 31, 2022
Fiscal Year End	April 30, 2023

Membership

Number of	
- Retirees and Beneficiaries	201
- Inactive, Non-Retired Members	192
- Active Members	122
- Total	515
Covered Valuation Payroll ⁽¹⁾	\$ 6,418,607

Net Pension Liability

Total Pension Liability/(Asset)	\$ 61,575,792
Plan Fiduciary Net Position	53,634,758
Net Pension Liability/(Asset)	\$ 7,941,034
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	87.10%
Net Pension Liability as a Percentage of Covered Valuation Payroll	123.72%

Development of the Single Discount Rate as of December 31, 2022

Long-Term Expected Rate of Investment Return	7.25%
Long-Term Municipal Bond Rate ⁽²⁾	4.05%
Last year ending December 31 in the 2023 to 2122 projection period for which projected benefit payments are fully funded	2122
Resulting Single Discount Rate based on the above development	7.25%

Single Discount Rate calculated using December 31, 2021 Measurement Date 7.25%

Total Pension Expense/(Income) \$ 1,350,145

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	\$ 252,520	\$ 78,314
Changes in assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	10,405,427	5,887,432
Total	\$ 10,657,947	\$ 5,965,746

⁽¹⁾ Does not necessarily represent Covered Employee Payroll as defined in GASB Statement No. 68.

⁽²⁾ Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of December 30, 2022. 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.

Discussion

Accounting Standard

For state and local government employers (as well as certain non-employers) that contribute to a Defined Benefit (DB) pension plan administered through a trust or equivalent arrangement, Governmental Accounting Standards Board (GASB) Statement No. 68 establishes standards for pension accounting and financial reporting. Under GASB Statement No. 68, the employer must 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 is not included in this report if it is not actuarial in nature, such as the notes to the financial statements regarding accounting policies and investments. As a result, the retirement fund and/or plan sponsor is responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state and local government employers that contribute to DB pension plans to recognize the net pension liability and the pension expense on their financial statements, along with the related deferred outflows of resources and deferred inflows of resources. 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 says, "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 IMRF subsequent to the measurement date of December 31, 2022.

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 certain changes in the liability and investment experience.

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 of resources and inflows of resources related to pensions.

In addition, GASB Statement No. 68 requires the notes of the financial statements for the employers to include certain additional information, including (page numbers refer to page numbers from this report unless specified otherwise):

- A description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs (please see pages B-1 to B-5 of the December 31, 2022 Annual Actuarial Valuation report dated March 10, 2023);
- The number and classes of employees covered by the benefit terms (page 1);
- For the current year, sources of changes in the net pension liability (page 11);
- Significant assumptions and methods used to calculate the total pension liability (page 16);
- Inputs to the single discount rate (page 17);
- Certain information about mortality assumptions and the dates of experience studies (pages 14 and 16);
- The date of the valuation used to determine the total pension liability (page 1);
- Information about changes of assumptions or other inputs and benefit terms (pages 14 and 16);
- The basis for determining contributions to the plan, including a description of the plan's funding policy, as well as member and employer contribution requirements (please see page A-3, B-5 and Section D of the December 31, 2022 Annual Actuarial Valuation report dated March 10, 2023, as well as page 14);
- The total pension liability, fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability (page 11);
- 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 (page 11); and
- A description of the fund that administers the pension plan (to be provided by IMRF).

Required Supplementary Information

The financial statements of employers also include required supplementary information showing the 10-year fiscal history of:

- Sources of changes in the net pension liability (page 12);
- 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 (page 12); and
- Comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy (page 13).

These tables may be built prospectively as the information becomes available.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net pension liability and pension expense should be measured as of the employer's "measurement date" which may not be earlier than the fiscal year-end date, 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, 2022 and a measurement date of December 31, 2022.

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 plan's projected fiduciary net position is not sufficient to pay benefits).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%, the municipal bond rate is 4.05% (based on the daily rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" described on page 1), and the resulting Single Discount Rate is 7.25%.

Other Observations

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 7.25% on the actuarial value of assets), it is expected that:

- (1) The employer normal cost as a percentage of pay will decrease to the level of Tier 2 normal cost as time passes, as the majority of the active population will consist of Tier 2 members.
- (2) The unfunded liability will increase in dollar amount for several years before it begins to decrease.
- (3) The funded status of the plan will increase gradually towards a 100% funded ratio.

This funding policy results in a crossover date in 2122 and a discount rate of 7.25%. The projections in this report are strictly for the purposes of determining the GASB discount rate and are different from a funding projection for the ongoing plan.

Limitations of Assets as a Percent of Total Pension Liability Measurements

This report includes a measure of the plan fiduciary net position as a percent of total pension liability. Unless otherwise indicated, with regard to any such measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- (2) The measurement is inappropriate for assessing the need for or amount of future employer contributions.

Limitations of Funded Status Measurements

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

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

Limitation of Project Scope

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

SECTION B

FINANCIAL STATEMENTS

Pension Expense/(Income) Under GASB Statement No. 68

Calendar Year Ended December 31, 2022

A. Expense/(Income)

1. Service Cost	\$	556,112
2. Interest on the Total Pension Liability		4,231,266
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(288,838)
5. Projected Earnings on Plan Investments (made negative for addition here)		(4,596,158)
6. Other Changes in Plan Fiduciary Net Position		317,245
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		182,585
8. Recognition of Outflow (Inflow) of Resources due to Assets		947,933
9. Total Pension Expense/(Income)	\$	1,350,145

Recognition of Deferred Outflows and Inflows of Resources

Differences between expected and actual experience and changes in assumptions are recognized in the 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 a retirement benefit 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 1,007 years. Additionally, the total plan membership (active employees and inactive employees) was 482. 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 2.0892 years.

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

Statement of Outflows and Inflows Arising from Current Reporting Period Calendar Year Ended December 31, 2022

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$	484,360
2. Assumption Changes (gains) or losses	\$	0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		2.0892
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	\$	231,840
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$	0
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$	231,840
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	\$	252,520
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$	0
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$	252,520

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$	13,006,784
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	\$	2,601,357
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$	10,405,427

Please note that employer contributions made after the measurement date have not been reported as deferred outflows of resources. These employer contributions must be separately accounted for by the employer.

Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Calendar Year Ended December 31, 2022

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	\$ 554,206	\$ 371,621	\$ 182,585
2. Due to Assets	3,847,864	2,899,931	947,933
3. Total	\$ 4,402,070	\$ 3,271,552	\$ 1,130,518

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	\$ 554,206	\$ 235,623	\$ 318,583
2. Assumption changes	0	135,998	\$ (135,998)
3. Net difference between projected and actual earnings on pension plan investments	3,847,864	2,899,931	947,933
4. Total	\$ 4,402,070	\$ 3,271,552	\$ 1,130,518

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	\$ 252,520	\$ 78,314	\$ 174,206
2. Assumption changes	0	0	0
3. Net difference between projected and actual earnings on pension plan investments	10,405,427	5,887,432	4,517,995
4. Total	\$ 10,657,947	\$ 5,965,746	\$ 4,692,201

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
2023	\$ (145,050)
2024	769,445
2025	1,466,450
2026	2,601,356
2027	0
Thereafter	0
Total	\$ 4,692,201

Recognition of Deferred Outflows and Inflows of Resources

Reporting Date - December 31, 2022

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					
2014	\$ 0	1.0000	\$ 0	\$ 0	0.0000
2015	281,872	3.3234	0	0	0.0000
2016	2,343,249	3.2458	0	0	0.0000
2017	(445,945)	3.1371	0	0	0.0000
2018	(372,427)	3.2678	0	0	0.0000
2019	(472,469)	3.0055	(866)	0	0.0000
2020	990,554	2.9649	322,366	0	0.0000
2021	(547,828)	2.3336	(234,757)	(78,314)	0.3336
2022	484,360	2.0892	231,840	252,520	1.0892
Total			\$ 318,583	\$ 174,206	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	\$ 0	1.0000	\$ 0	\$ 0	0.0000
2015	58,964	3.3234	0	0	0.0000
2016	(187,209)	3.2458	0	0	0.0000
2017	(1,631,419)	3.1371	0	0	0.0000
2018	1,484,631	3.2678	0	0	0.0000
2019	0	3.0055	0	0	0.0000
2020	(417,886)	2.9649	(135,998)	0	0.0000
2021	0	2.3336	0	0	0.3336
2022	0	2.0892	0	0	1.0892
Total			\$ (135,998)	\$ 0	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2018	\$ 6,232,531	5.0000	\$ 1,246,507	\$ 0	0.0000
2019	(5,236,687)	5.0000	(1,047,337)	(1,047,339)	1.0000
2020	(3,588,438)	5.0000	(717,688)	(1,435,374)	2.0000
2021	(5,674,531)	5.0000	(1,134,906)	(3,404,719)	3.0000
2022	13,006,784	5.0000	2,601,357	10,405,427	4.0000
Total			\$ 947,933	\$ 4,517,995	

Schedule of Changes in Net Pension Liability and Related Ratios Current Period Calendar Year Ended December 31, 2022

A. Total pension liability	
1. Service Cost	\$ 556,112
2. Interest on the Total Pension Liability	4,231,266
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	484,360
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(3,560,364)
7. Net change in total pension liability	\$ 1,711,374
8. Total pension liability – beginning	59,864,418
9. Total pension liability – ending	<u><u>\$ 61,575,792</u></u>
B. Plan fiduciary net position	
1. Contributions – employer	\$ 888,977
2. Contributions – employee	288,838
3. Net investment income	(8,410,626)
4. Benefit payments, including refunds of employee contributions	(3,560,364)
5. Other (Net Transfer)	(317,245)
6. Net change in plan fiduciary net position	\$ (11,110,420)
7. Plan fiduciary net position – beginning	64,745,178
8. Plan fiduciary net position – ending	<u><u>\$ 53,634,758</u></u>
C. Net pension liability/(asset)	<u><u>\$ 7,941,034</u></u>
D. Plan fiduciary net position as a percentage of the total pension liability	87.10%
E. Covered Valuation payroll⁽¹⁾	\$ 6,418,607
F. Net pension liability as a percentage of covered valuation payroll	123.72%

⁽¹⁾ Does not necessarily represent Covered Employee Payroll as defined in GASB Statement No. 68.

Sensitivity of Net Pension Liability/(Asset) to the Single Discount Rate Assumption

	1% Decrease 6.25%	Current Single Discount Rate Assumption 7.25%	1% Increase 8.25%
Total Pension Liability	\$ 68,074,810	\$ 61,575,792	\$ 56,420,688
Plan Fiduciary Net Position	53,634,758	53,634,758	53,634,758
Net Pension Liability/(Asset)	\$ 14,440,052	\$ 7,941,034	\$ 2,785,930

Schedules of Required Supplementary Information

Multiyear Schedule of Changes in Net Pension Liability and Related Ratios

Last 10 Calendar Years
(schedule to be built prospectively from 2014)

Calendar year ending December 31,	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability										
Service Cost	\$ 556,112	\$ 565,633	\$ 682,946	\$ 686,506	\$ 680,303	\$ 680,014	\$ 809,218	\$ 789,221		
Interest on the Total Pension Liability	4,231,266	4,178,772	4,034,978	3,956,534	3,892,570	3,923,085	3,609,206	3,429,032		
Benefit Changes	0	0	0	0	0	0	0	0		
Difference between Expected and Actual Experience	484,360	(547,828)	990,554	(472,469)	(372,427)	(445,945)	2,343,249	281,872		
Assumption Changes	0	0	(417,886)	0	1,484,631	(1,631,419)	(187,209)	58,964		
Benefit Payments and Refunds	(3,560,364)	(3,375,151)	(3,121,986)	(3,051,641)	(2,980,797)	(2,884,700)	(2,151,447)	(2,040,059)		
Net Change in Total Pension Liability	1,711,374	821,426	2,168,606	1,118,930	2,704,280	(358,965)	4,423,017	2,519,030		
Total Pension Liability - Beginning	59,864,418	59,042,992	56,874,386	55,755,456	53,051,176	53,410,141	48,987,124	46,468,094		
Total Pension Liability - Ending (a)	\$ 61,575,792	\$ 59,864,418	\$ 59,042,992	\$ 56,874,386	\$ 55,755,456	\$ 53,051,176	\$ 53,410,141	\$ 48,987,124		
Plan Fiduciary Net Position										
Employer Contributions	\$ 888,977	\$ 1,370,552	\$ 1,360,264	\$ 970,075	\$ 1,241,350	\$ 954,971	\$ 1,118,470	\$ 1,105,091		
Employee Contributions	288,838	264,609	306,429	308,723	322,335	332,779	349,656	350,591		
Pension Plan Net Investment Income	(8,410,626)	9,734,388	7,227,911	8,356,691	(2,713,779)	7,663,304	2,641,923	199,453		
Benefit Payments and Refunds	(3,560,364)	(3,375,151)	(3,121,986)	(3,051,641)	(2,980,797)	(2,884,700)	(2,151,447)	(2,040,059)		
Other	(317,245)	(234,473)	570,725	274,195	579,007	(1,155,125)	184,143	483,935		
Net Change in Plan Fiduciary Net Position	(11,110,420)	7,759,925	6,343,343	6,858,043	(3,551,884)	4,911,229	2,142,745	99,011		
Plan Fiduciary Net Position - Beginning	64,745,178	56,985,253	50,641,910	43,783,867	47,335,751	42,424,522	40,281,777	40,182,766		
Plan Fiduciary Net Position - Ending (b)	\$ 53,634,758	\$ 64,745,178	\$ 56,985,253	\$ 50,641,910	\$ 43,783,867	\$ 47,335,751	\$ 42,424,522	\$ 40,281,777		
Net Pension Liability/(Asset) - Ending (a) - (b)	7,941,034	(4,880,760)	2,057,739	6,232,476	11,971,589	5,715,425	10,985,619	8,705,347		
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	87.10%	108.15%	96.51%	89.04%	78.53%	89.23%	79.43%	82.23%		
Covered Valuation Payroll⁽¹⁾	\$ 6,418,607	\$ 5,880,190	\$ 6,765,780	\$ 6,860,507	\$ 7,081,289	\$ 7,016,964	\$ 7,767,307	\$ 7,574,305		
Net Pension Liability as a Percentage of Covered Valuation Payroll	123.72%	(83.00)%	30.41%	90.85%	169.06%	81.45%	141.43%	114.93%		

⁽¹⁾ Does not necessarily represent Covered Employee Payroll as defined in GASB Statement No. 68.



Multiyear Schedule of Contributions

Last 10 Calendar Years

Calendar Year Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Valuation Payroll	Actual Contribution as a % of Covered Valuation Payroll
2015	\$ 1,105,091	\$ 1,105,091	\$ 0	\$ 7,574,305	14.59%
2016	1,118,492	1,118,470	22	7,767,307	14.40%
2017	962,727	954,971	7,756	7,016,964	13.61%
2018	1,241,350	1,241,350	0	7,081,289	17.53%
2019	970,076	970,075	1	6,860,507	14.14%
2020	1,110,264	1,360,264	(250,000)	6,765,780	20.11%
2021	895,553	1,370,552	(474,999)	5,880,190	23.31%
2022	888,977 *	888,977	0	6,418,607	13.85%

* Estimated based on contribution rate of 13.85% and covered valuation payroll of \$6,418,607.
This number should be verified by the auditor.

Notes to Schedule of Contributions

Summary of Actuarial Methods and Assumptions Used in the Calculation of the 2022 Contribution Rate*

Valuation Date:

Notes Actuarially determined contribution rates are calculated as of December 31 each year, which is 12 months prior to the beginning of the calendar year in which contributions are reported.

Methods and Assumptions Used to Determine 2022 Contribution Rates:

Actuarial Cost Method	Aggregate Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	Non-Taxing bodies: 10-year rolling period. Taxing bodies (Regular, SLEP and ECO groups): 21-year closed period. Early Retirement Incentive Plan liabilities: a period up to 10 years selected by the Employer upon adoption of ERI. SLEP supplemental liabilities attributable to Public Act 94-712 were financed over 16 years for most employers (five employers were financed over 17 years; one employer was financed over 18 years; two employers were financed over 19 years; one employer was financed over 20 years; three employers were financed over 25 years; four employers were financed over 26 years and one employer was financed over 27 years).
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage growth	2.75%
Price Inflation	2.25%
Salary Increases	2.85% to 13.75% including inflation
Investment Rate of Return	7.25%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2020 valuation pursuant to an experience study of the period 2017-2019.
Mortality	For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.

Other Information:

Notes There were no benefit changes during the year.

* Based on Valuation Assumptions used in the December 31, 2020 actuarial valuation.



Development of Market Value of Assets

Market Value of Assets as of December 31, 2022

1. Employee Contribution Reserve (MDF Assets from IMRF)	\$	7,841,122
2. Employer Contribution Reserve (EAF assets from IMRF)		5,442,930
3. Annuitant Reserve		40,558,828
4. Miscellaneous Adjustment*		<u>(208,122)</u>
5. Net Market Value	\$	53,634,758

* Includes an adjustment factor of (0.003865352) on Items 1 through 3 to ensure that Market Value of Assets for all employers balance to the total Market Value of IMRF. Miscellaneous adjustments are due to various items such as suspended annuity reserve, disability benefit reserve, death benefit reserve, supplemental benefit reserve, employers with no assets, etc.

Schedule of Contributions

Total Contributions

1. Employer

a.) Wage Reporting	\$	888,977
b.) Accelerated payments and Reserve Payments		<u>0</u>
Total Employer Contributions (a+b)	\$	888,977

2. Member

a.) Wage Reporting	\$	288,838
b.) Member Payments (i.e., ERI, Pension Payments)		<u>0</u>
Sub-total (Amount used for valuation on Schedule of Changes Page 11)	\$	288,838

c.) Voluntary Additional Plan	\$	39,949
Total Member Contributions (a+b+c)	\$	328,787

Total Employer and Member Contributions (1+2)	\$	1,217,764
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Summary of Actuarial Methods and Assumptions Used in the Calculation of the Total Pension Liability

Methods and Assumptions Used to Determine Total Pension Liability:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Market Value of Assets
Price Inflation	2.25%
Salary Increases	2.85% to 13.75%
Investment Rate of Return ¹	7.25%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2020 valuation pursuant to an experience study of the period 2017-2019.
Mortality	For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.

Other Information:

Notes There were no benefit changes during the year.

¹ *There were no changes in the investment rate of return since the December 31, 2021 valuation. There were no other changes to the methods and assumptions used to determine the Total Pension Liability.*

A detailed description of the actuarial assumptions and methods can be found in the December 31, 2022 IMRF annual actuarial valuation report.

SECTION C

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 68 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 7.25%; the municipal bond rate is 4.05%; and the resulting single discount rate is 7.25%.

The tables in this section provide background for the development of the single discount rate.

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

Expected Contributions are developed based on the following:

- Member Contributions for current members
- Normal Cost contributions for current members
- Unfunded Liability contributions for current members

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	Contributions from				Total Contributions
	Payroll for Current Employees	Current Employees	Normal Cost Contributions	UAL Contributions	
2022	\$ 6,418,607				
2023	6,617,271	\$ 297,777	\$ 352,968	\$ 253,160	\$ 903,906
2024	6,123,267	275,547	303,551	352,206	931,304
2025	5,736,217	258,130	280,952	463,944	1,003,026
2026	5,439,099	244,759	266,939	590,153	1,101,851
2027	5,186,908	233,411	254,047	732,942	1,220,400
2028	4,955,663	223,005	242,230	751,266	1,216,501
2029	4,737,155	213,172	231,080	770,047	1,214,299
2030	4,540,484	204,322	220,586	789,298	1,214,206
2031	4,346,188	195,578	209,854	809,031	1,214,464
2032	4,129,768	185,840	198,176	829,257	1,213,273
2033	3,925,818	176,662	186,833	849,988	1,213,482
2034	3,718,382	167,327	175,117	871,238	1,213,683
2035	3,508,602	157,887	163,847	893,019	1,214,753
2036	3,320,797	149,436	153,101	915,344	1,217,881
2037	3,154,118	141,935	143,853	938,228	1,224,017
2038	3,001,775	135,080	135,417	961,683	1,232,180
2039	2,850,074	128,253	127,161	985,726	1,241,140
2040	2,715,155	122,182	119,795	1,010,369	1,252,346
2041	2,605,959	117,268	113,428	1,035,628	1,266,324
2042	2,502,842	112,628	107,699	1,061,519	1,281,846
2043	2,384,470	107,301	101,660	0	208,961
2044	2,253,325	101,400	94,951	0	196,351
2045	2,124,659	95,610	88,477	0	184,086
2046	1,999,414	89,974	82,270	0	172,244
2047	1,862,479	83,812	75,528	0	159,339
2048	1,690,408	76,068	67,712	0	143,780
2049	1,527,361	68,731	60,575	0	129,306
2050	1,417,961	63,808	55,815	0	119,623
2051	1,315,045	59,177	51,242	0	110,419
2052	1,191,775	53,630	45,966	0	99,596
2053	1,081,574	48,671	41,394	0	90,065
2054	953,800	42,921	36,220	0	79,141
2055	777,057	34,968	29,354	0	64,322
2056	610,303	27,464	22,995	0	50,458
2057	485,211	21,834	18,233	0	40,068
2058	391,774	17,630	14,645	0	32,274
2059	319,894	14,395	11,958	0	26,353
2060	258,484	11,632	9,637	0	21,268
2061	207,593	9,342	7,719	0	17,060
2062	152,383	6,857	5,651	0	12,508
2063	89,617	4,033	3,323	0	7,356
2064	48,876	2,199	1,817	0	4,017
2065	29,976	1,349	1,118	0	2,466
2066	15,036	677	565	0	1,242
2067	4,123	186	155	0	340
2068	1,150	52	45	0	97
2069	228	10	9	0	19
2070	58	3	1	0	4
2071	15	1	1	0	1
2072	4	0	0	0	0

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.



Single Discount Rate Development Projection of Contributions (Concluded)

Year	Contributions from				Total Contributions
	Payroll for Current Employees	Current Employees	Normal Cost Contributions	UAL Contributions	
2073	\$ 1	\$ 0	\$ 0	\$ 0	0
2074	0	0	0	0	0
2075	0	0	0	0	0
2076	0	0	0	0	0
2077	0	0	0	0	0
2078	0	0	0	0	0
2079	0	0	0	0	0
2080	0	0	0	0	0
2081	0	0	0	0	0
2082	0	0	0	0	0
2083	0	0	0	0	0
2084	0	0	0	0	0
2085	0	0	0	0	0
2086	0	0	0	0	0
2087	0	0	0	0	0
2088	0	0	0	0	0
2089	0	0	0	0	0
2090	0	0	0	0	0
2091	0	0	0	0	0
2092	0	0	0	0	0
2093	0	0	0	0	0
2094	0	0	0	0	0
2095	0	0	0	0	0
2096	0	0	0	0	0
2097	0	0	0	0	0
2098	0	0	0	0	0
2099	0	0	0	0	0
2100	0	0	0	0	0
2101	0	0	0	0	0
2102	0	0	0	0	0
2103	0	0	0	0	0
2104	0	0	0	0	0
2105	0	0	0	0	0
2106	0	0	0	0	0
2107	0	0	0	0	0
2108	0	0	0	0	0
2109	0	0	0	0	0
2110	0	0	0	0	0
2111	0	0	0	0	0
2112	0	0	0	0	0
2113	0	0	0	0	0
2114	0	0	0	0	0
2115	0	0	0	0	0
2116	0	0	0	0	0
2117	0	0	0	0	0
2118	0	0	0	0	0
2119	0	0	0	0	0
2120	0	0	0	0	0
2121	0	0	0	0	0
2122	0	0	0	0	0

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.



Single Discount Rate Development Projection of Plan Fiduciary Net Position

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2023	\$ 53,634,758	\$ 903,906	\$ 3,757,718	\$ 3,786,879	\$ 54,567,825
2024	54,567,825	931,304	3,907,158	3,850,180	55,442,150
2025	55,442,150	1,003,025	4,058,365	3,910,738	56,297,548
2026	56,297,548	1,101,851	4,172,524	3,972,208	57,199,083
2027	57,199,083	1,220,400	4,276,914	4,038,073	58,180,643
2028	58,180,643	1,216,501	4,436,643	4,103,409	59,063,909
2029	59,063,909	1,214,299	4,565,799	4,162,767	59,875,177
2030	59,875,177	1,214,206	4,703,298	4,216,684	60,602,769
2031	60,602,769	1,214,463	4,862,984	4,263,756	61,218,005
2032	61,218,005	1,213,272	4,995,820	4,303,587	61,739,044
2033	61,739,044	1,213,482	5,100,131	4,337,655	62,190,050
2034	62,190,050	1,213,682	5,202,169	4,366,726	62,568,289
2035	62,568,289	1,214,752	5,307,313	4,390,441	62,866,170
2036	62,866,170	1,217,881	5,381,821	4,409,495	63,111,725
2037	63,111,725	1,224,016	5,439,026	4,425,479	63,322,195
2038	63,322,195	1,232,181	5,488,648	4,439,262	63,504,989
2039	63,504,989	1,241,140	5,532,930	4,451,256	63,664,456
2040	63,664,456	1,252,346	5,554,321	4,462,455	63,824,935
2041	63,824,935	1,266,324	5,582,069	4,473,599	63,982,789
2042	63,982,789	1,281,845	5,583,453	4,485,547	64,166,729
2043	64,166,729	208,961	5,582,436	4,460,707	63,253,961
2044	63,253,961	196,351	5,568,942	4,394,563	62,275,934
2045	62,275,934	184,086	5,520,392	4,324,949	61,264,577
2046	61,264,577	172,244	5,471,400	4,252,948	60,218,369
2047	60,218,369	159,339	5,417,538	4,178,557	59,138,727
2048	59,138,727	143,780	5,398,215	4,100,417	57,984,709
2049	57,984,709	129,306	5,366,484	4,017,365	56,764,897
2050	56,764,897	119,623	5,298,329	3,931,011	55,517,202
2051	55,517,202	110,419	5,218,865	3,843,056	54,251,813
2052	54,251,813	99,596	5,175,535	3,752,473	52,928,347
2053	52,928,347	90,065	5,107,662	3,658,600	51,569,349
2054	51,569,349	79,141	5,060,036	3,561,379	50,149,834
2055	50,149,834	64,322	5,068,802	3,457,625	48,602,978
2056	48,602,978	50,458	5,034,514	3,346,205	46,965,127
2057	46,965,127	40,068	4,938,077	3,230,525	45,297,644
2058	45,297,644	32,274	4,834,673	3,113,038	43,608,283
2059	43,608,283	26,353	4,733,856	2,993,939	41,894,719
2060	41,894,719	21,268	4,630,656	2,873,200	40,158,531
2061	40,158,531	17,060	4,513,601	2,751,346	38,413,336
2062	38,413,336	12,508	4,418,534	2,628,043	36,635,353
2063	36,635,353	7,356	4,326,197	2,502,244	34,818,757
2064	34,818,757	4,017	4,194,511	2,375,112	33,003,375
2065	33,003,375	2,466	4,042,954	2,248,840	31,211,727
2066	31,211,727	1,242	3,895,904	2,124,139	29,441,204
2067	29,441,204	340	3,738,897	2,001,336	27,703,982
2068	27,703,982	97	3,575,376	1,881,202	26,009,905
2069	26,009,905	19	3,412,895	1,764,166	24,361,195
2070	24,361,195	4	3,252,440	1,650,349	22,759,108
2071	22,759,108	1	3,094,706	1,539,815	21,204,218
2072	21,204,218	0	2,939,492	1,432,614	19,697,339

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.



Single Discount Rate Development

Projection of Plan Fiduciary Net Position (Concluded)

Year	Projected Beginning	Projected Total	Projected Benefit	Projected	Projected Ending Plan
	Plan Net Position	Contributions	Payments	Investment Earnings at 7.25%	Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2073	\$ 19,697,339	\$ 0	\$ 2,786,492	\$ 1,328,814	\$ 18,239,661
2074	18,239,661	0	2,635,586	1,228,507	16,832,583
2075	16,832,583	0	2,486,556	1,131,802	15,477,828
2076	15,477,828	0	2,339,289	1,038,827	14,177,367
2077	14,177,367	0	2,193,780	949,726	12,933,313
2078	12,933,313	0	2,050,154	864,647	11,747,806
2079	11,747,806	0	1,908,649	783,738	10,622,895
2080	10,622,895	0	1,769,574	707,135	9,560,456
2081	9,560,456	0	1,633,356	634,960	8,562,060
2082	8,562,060	0	1,500,540	567,306	7,628,826
2083	7,628,826	0	1,371,707	504,236	6,761,355
2084	6,761,355	0	1,247,464	445,769	5,959,660
2085	5,959,660	0	1,128,428	391,886	5,223,117
2086	5,223,117	0	1,015,122	342,522	4,550,517
2087	4,550,517	0	908,024	297,573	3,940,066
2088	3,940,066	0	807,526	256,894	3,389,434
2089	3,389,434	0	713,870	220,309	2,895,873
2090	2,895,873	0	627,186	187,613	2,456,300
2091	2,456,300	0	547,467	158,583	2,067,417
2092	2,067,417	0	474,598	132,985	1,725,803
2093	1,725,803	0	408,417	110,575	1,427,961
2094	1,427,961	0	348,695	91,108	1,170,373
2095	1,170,373	0	295,170	74,339	949,543
2096	949,543	0	247,557	60,025	762,012
2097	762,012	0	205,553	47,925	604,383
2098	604,383	0	168,834	37,805	473,354
2099	473,354	0	137,046	29,437	365,745
2100	365,745	0	109,824	22,605	278,527
2101	278,527	0	86,796	17,102	208,832
2102	208,832	0	67,575	12,734	153,991
2103	153,991	0	51,759	9,321	111,553
2104	111,553	0	38,953	6,700	79,300
2105	79,300	0	28,767	4,725	55,257
2106	55,257	0	20,820	3,265	37,702
2107	37,702	0	14,749	2,208	25,160
2108	25,160	0	10,214	1,460	16,406
2109	16,406	0	6,907	943	10,443
2110	10,443	0	4,555	595	6,482
2111	6,482	0	2,927	366	3,921
2112	3,921	0	1,830	219	2,310
2113	2,310	0	1,113	128	1,325
2114	1,325	0	658	73	740
2115	740	0	377	40	402
2116	402	0	210	22	214
2117	214	0	114	11	112
2118	112	0	60	6	58
2119	58	0	31	3	30
2120	30	0	15	2	16
2121	16	0	7	1	10
2122	10	0	4	1	7

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.



Single Discount Rate Development

Present Values of Projected Benefits

Year	Projected		Unfunded Portion		Present Value of	Present Value of	Present Value of
	Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	of Benefit Payments	Funded Benefit Payments using Expected Return Rate (v)	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}
2023	\$ 53,634,758	\$ 3,757,718	\$ 3,757,718	\$ 0	\$ 3,628,487	\$ 0	\$ 3,628,487
2024	54,567,825	3,907,158	3,907,158	0	3,517,751	0	3,517,751
2025	55,442,150	4,058,365	4,058,365	0	3,406,888	0	3,406,888
2026	56,297,548	4,172,524	4,172,524	0	3,265,941	0	3,265,941
2027	57,199,083	4,276,914	4,276,914	0	3,121,351	0	3,121,351
2028	58,180,643	4,436,643	4,436,643	0	3,019,043	0	3,019,043
2029	59,063,909	4,565,799	4,565,799	0	2,896,905	0	2,896,905
2030	59,875,177	4,703,298	4,703,298	0	2,782,420	0	2,782,420
2031	60,602,769	4,862,984	4,862,984	0	2,682,414	0	2,682,414
2032	61,218,005	4,995,820	4,995,820	0	2,569,404	0	2,569,404
2033	61,739,044	5,100,131	5,100,131	0	2,445,737	0	2,445,737
2034	62,190,050	5,202,169	5,202,169	0	2,326,031	0	2,326,031
2035	62,568,289	5,307,313	5,307,313	0	2,212,628	0	2,212,628
2036	62,866,170	5,381,821	5,381,821	0	2,092,019	0	2,092,019
2037	63,111,725	5,439,026	5,439,026	0	1,971,334	0	1,971,334
2038	63,322,195	5,488,648	5,488,648	0	1,854,843	0	1,854,843
2039	63,504,989	5,532,930	5,532,930	0	1,743,411	0	1,743,411
2040	63,664,456	5,554,321	5,554,321	0	1,631,842	0	1,631,842
2041	63,824,935	5,582,069	5,582,069	0	1,529,133	0	1,529,133
2042	63,982,789	5,583,453	5,583,453	0	1,426,118	0	1,426,118
2043	64,166,729	5,582,436	5,582,436	0	1,329,472	0	1,329,472
2044	63,253,961	5,568,942	5,568,942	0	1,236,604	0	1,236,604
2045	62,275,934	5,520,392	5,520,392	0	1,142,959	0	1,142,959
2046	61,264,577	5,471,400	5,471,400	0	1,056,238	0	1,056,238
2047	60,218,369	5,417,538	5,417,538	0	975,142	0	975,142
2048	59,138,727	5,398,215	5,398,215	0	905,981	0	905,981
2049	57,984,709	5,366,484	5,366,484	0	839,772	0	839,772
2050	56,764,897	5,298,329	5,298,329	0	773,060	0	773,060
2051	55,517,202	5,218,865	5,218,865	0	709,991	0	709,991
2052	54,251,813	5,175,535	5,175,535	0	656,500	0	656,500
2053	52,928,347	5,107,662	5,107,662	0	604,094	0	604,094
2054	51,569,349	5,060,036	5,060,036	0	558,006	0	558,006
2055	50,149,834	5,068,802	5,068,802	0	521,186	0	521,186
2056	48,602,978	5,034,514	5,034,514	0	482,667	0	482,667
2057	46,965,127	4,938,077	4,938,077	0	441,419	0	441,419
2058	45,297,644	4,834,673	4,834,673	0	402,961	0	402,961
2059	43,608,283	4,733,856	4,733,856	0	367,886	0	367,886
2060	41,894,719	4,630,656	4,630,656	0	335,540	0	335,540
2061	40,158,531	4,513,601	4,513,601	0	304,949	0	304,949
2062	38,413,336	4,418,534	4,418,534	0	278,346	0	278,346
2063	36,635,353	4,326,197	4,326,197	0	254,106	0	254,106
2064	34,818,757	4,194,511	4,194,511	0	229,717	0	229,717
2065	33,003,375	4,042,954	4,042,954	0	206,449	0	206,449
2066	31,211,727	3,895,904	3,895,904	0	185,492	0	185,492
2067	29,441,204	3,738,897	3,738,897	0	165,983	0	165,983
2068	27,703,982	3,575,376	3,575,376	0	147,994	0	147,994
2069	26,009,905	3,412,895	3,412,895	0	131,719	0	131,719
2070	24,361,195	3,252,440	3,252,440	0	117,041	0	117,041
2071	22,759,108	3,094,706	3,094,706	0	103,837	0	103,837
2072	21,204,218	2,939,492	2,939,492	0	91,961	0	91,961

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.



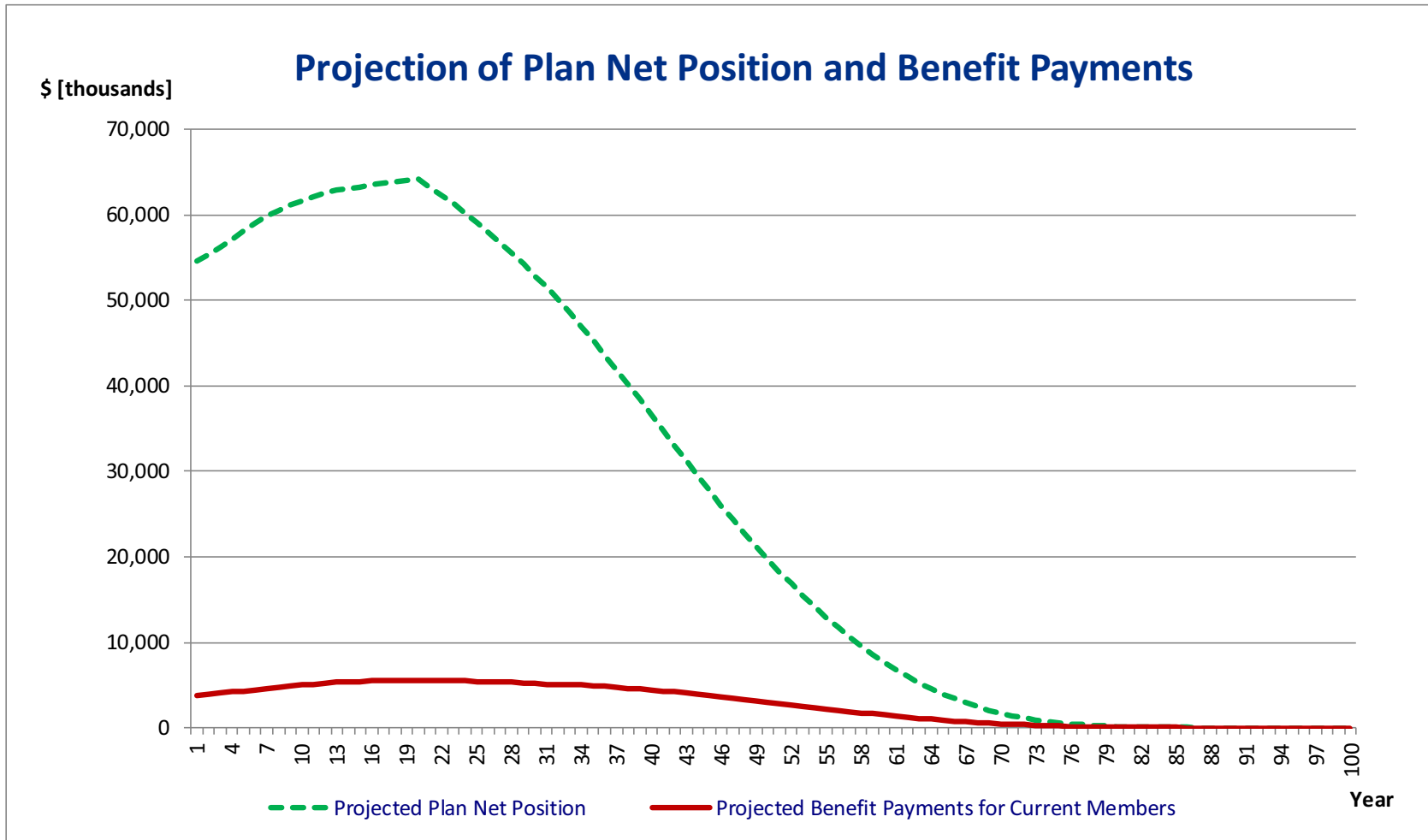
Single Discount Rate Development

Present Values of Projected Benefits (Concluded)

Year	Projected		Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of	Present Value of	Present Value of
	Beginning Plan Net Position	Projected Benefit Payments			Funded Benefit Payments using Expected Return Rate (v)	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)
2073	\$ 19,697,339	\$ 2,786,492	\$ 2,786,492	\$ 0	\$ 81,282	\$ 0	\$ 81,282
2074	18,239,661	2,635,586	2,635,586	0	71,683	0	71,683
2075	16,832,583	2,486,556	2,486,556	0	63,058	0	63,058
2076	15,477,828	2,339,289	2,339,289	0	55,313	0	55,313
2077	14,177,367	2,193,780	2,193,780	0	48,366	0	48,366
2078	12,933,313	2,050,154	2,050,154	0	42,144	0	42,144
2079	11,747,806	1,908,649	1,908,649	0	36,583	0	36,583
2080	10,622,895	1,769,574	1,769,574	0	31,625	0	31,625
2081	9,560,456	1,633,356	1,633,356	0	27,217	0	27,217
2082	8,562,060	1,500,540	1,500,540	0	23,314	0	23,314
2083	7,628,826	1,371,707	1,371,707	0	19,871	0	19,871
2084	6,761,355	1,247,464	1,247,464	0	16,850	0	16,850
2085	5,959,660	1,128,428	1,128,428	0	14,212	0	14,212
2086	5,223,117	1,015,122	1,015,122	0	11,920	0	11,920
2087	4,550,517	908,024	908,024	0	9,942	0	9,942
2088	3,940,066	807,526	807,526	0	8,244	0	8,244
2089	3,389,434	713,870	713,870	0	6,795	0	6,795
2090	2,895,873	627,186	627,186	0	5,566	0	5,566
2091	2,456,300	547,467	547,467	0	4,530	0	4,530
2092	2,067,417	474,598	474,598	0	3,662	0	3,662
2093	1,725,803	408,417	408,417	0	2,938	0	2,938
2094	1,427,961	348,695	348,695	0	2,339	0	2,339
2095	1,170,373	295,170	295,170	0	1,846	0	1,846
2096	949,543	247,557	247,557	0	1,444	0	1,444
2097	762,012	205,553	205,553	0	1,118	0	1,118
2098	604,383	168,834	168,834	0	856	0	856
2099	473,354	137,046	137,046	0	648	0	648
2100	365,745	109,824	109,824	0	484	0	484
2101	278,527	86,796	86,796	0	357	0	357
2102	208,832	67,575	67,575	0	259	0	259
2103	153,991	51,759	51,759	0	185	0	185
2104	111,553	38,953	38,953	0	130	0	130
2105	79,300	28,767	28,767	0	89	0	89
2106	55,257	20,820	20,820	0	60	0	60
2107	37,702	14,749	14,749	0	40	0	40
2108	25,160	10,214	10,214	0	26	0	26
2109	16,406	6,907	6,907	0	16	0	16
2110	10,443	4,555	4,555	0	10	0	10
2111	6,482	2,927	2,927	0	6	0	6
2112	3,921	1,830	1,830	0	3	0	3
2113	2,310	1,113	1,113	0	2	0	2
2114	1,325	658	658	0	1	0	1
2115	740	377	377	0	1	0	1
2116	402	210	210	0	0	0	0
2117	214	114	114	0	0	0	0
2118	112	60	60	0	0	0	0
2119	58	31	31	0	0	0	0
2120	30	15	15	0	0	0	0
2121	16	7	7	0	0	0	0
2122	10	4	4	0	0	0	0
Totals	\$ 66,275,810	\$ -	\$ 66,275,810		\$ 66,275,810	\$ -	\$ 66,275,810

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.





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SECTION D

GLOSSARY OF TERMS

Glossary of Terms

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.

Accrued Service

Service credited under the fund which was rendered before the date of the actuarial valuation.

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 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 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 (Continued)

Amortization Payment

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

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).

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 Valuation Payroll

The earnings of covered employees for the year ended on the valuation date, which is typically only the pensionable pay and does not include pay above any pay cap. It is not necessarily the same as payroll actually paid because it excludes all pay for people who exited during the year.

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.

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.

Entry Age Actuarial Cost Method (EAN)

The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

Glossary of Terms (Continued)

<i>GASB</i>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<i>Fiduciary Net Position</i>	The fiduciary net position is the value of the assets of the trust.
<i>Long-Term Expected Rate of Return</i>	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
<i>Money-Weighted Rate of Return</i>	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 68, 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 statement plan members are not considered non-employer contribution entities.
<i>Normal Cost</i>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
<i>Other Postemployment Benefits (OPEB)</i>	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
<i>Real Rate of Return</i>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<i>Service Cost</i>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Glossary of Terms (Concluded)

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; and
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 the GASB Statement No. 68, the valuation asset is equal to the market value of assets.