

Arlington Hgts SD 25 Regular

GASB Statement No. 68 Employer Reporting
Accounting Schedules
December 31, 2022



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March 28, 2023

Arlington Hgts SD 25
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 Hgts SD 25 only in its entirety and only with the permission of Arlington Hgts SD 25. 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 Hgts SD 25. 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.

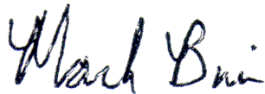
This report was prepared during the recent COVID-19 pandemic, which is likely to influence demographic, economic, and health care experience, at least in the short term. Results in this report are developed based on available data without adjustment. We will continue to monitor these developments and 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	June 30, 2023

Membership

Number of	
- Retirees and Beneficiaries	342
- Inactive, Non-Retired Members	350
- Active Members	278
- Total	970
Covered Valuation Payroll ⁽¹⁾	\$ 8,866,599

Net Pension Liability

Total Pension Liability/(Asset)	\$ 56,510,222
Plan Fiduciary Net Position	49,434,559
Net Pension Liability/(Asset)	\$ 7,075,663
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	87.48%
Net Pension Liability as a Percentage of Covered Valuation Payroll	79.80%

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) \$ 1,584,078

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	\$ 446,166	\$ 0
Changes in assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	9,541,036	5,420,731
Total	\$ 9,987,202	\$ 5,420,731

⁽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	\$	871,213
2. Interest on the Total Pension Liability		3,869,833
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(411,042)
5. Projected Earnings on Plan Investments (made negative for addition here)		(4,213,166)
6. Other Changes in Plan Fiduciary Net Position		(43,971)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		657,513
8. Recognition of Outflow (Inflow) of Resources due to Assets		853,698
9. Total Pension Expense/(Income)	\$	1,584,078

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 2,293 years. Additionally, the total plan membership (active employees and inactive employees) was 932. 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 2.4603 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	\$	548,285
2. Assumption Changes (gains) or losses	\$	0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		2.4603
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	\$	222,853
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	\$	222,853
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	\$	325,432
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	\$	325,432

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$	11,926,295
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	\$	2,385,259
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$	9,541,036

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	\$ 761,672	\$ 104,159	\$ 657,513
2. Due to Assets	3,519,073	2,665,375	853,698
3. Total	\$ 4,280,745	\$ 2,769,534	\$ 1,511,211

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	\$ 761,672	\$ 0	\$ 761,672
2. Assumption changes	0	104,159	\$ (104,159)
3. Net difference between projected and actual earnings on pension plan investments	3,519,073	2,665,375	853,698
4. Total	\$ 4,280,745	\$ 2,769,534	\$ 1,511,211

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	\$ 446,166	\$ 0	\$ 446,166
2. Assumption changes	0	0	0
3. Net difference between projected and actual earnings on pension plan investments	9,541,036	5,420,731	4,120,305
4. Total	\$ 9,987,202	\$ 5,420,731	\$ 4,566,471

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	\$ 63,473
2024	773,454
2025	1,344,285
2026	2,385,259
2027	0
Thereafter	0
Total	\$ 4,566,471

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	\$ 347,151	3.0847	\$ 0	\$ 0	0.0000
2015	265,732	3.0759	0	0	0.0000
2016	(35,527)	3.0673	0	0	0.0000
2017	711,424	3.0127	0	0	0.0000
2018	193,364	2.6732	0	0	0.0000
2019	840,609	2.7441	0	0	0.0000
2020	1,225,134	2.6269	292,374	0	0.0000
2021	613,624	2.4899	246,445	120,734	0.4899
2022	548,285	2.4603	222,853	325,432	1.4603
Total			\$ 761,672	\$ 446,166	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	\$ 1,806,494	3.0847	\$ 0	\$ 0	0.0000
2015	94,426	3.0759	0	0	0.0000
2016	(194,112)	3.0673	0	0	0.0000
2017	(1,388,230)	3.0127	0	0	0.0000
2018	1,190,789	2.6732	0	0	0.0000
2019	0	2.7441	0	0	0.0000
2020	(436,455)	2.6269	(104,159)	0	0.0000
2021	0	2.4899	0	0	0.4899
2022	0	2.4603	0	0	1.4603
Total			\$ (104,159)	\$ 0	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2018	\$ 5,669,074	5.0000	\$ 1,133,814	\$ 0	0.0000
2019	(4,754,943)	5.0000	(950,989)	(950,987)	1.0000
2020	(3,367,053)	5.0000	(673,411)	(1,346,820)	2.0000
2021	(5,204,874)	5.0000	(1,040,975)	(3,122,924)	3.0000
2022	11,926,295	5.0000	2,385,259	9,541,036	4.0000
Total			\$ 853,698	\$ 4,120,305	

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	\$ 871,213
2. Interest on the Total Pension Liability	3,869,833
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	548,285
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(3,441,007)
7. Net change in total pension liability	\$ 1,848,324
8. Total pension liability – beginning	54,661,898
9. Total pension liability – ending	<u><u>\$ 56,510,222</u></u>
B. Plan fiduciary net position	
1. Contributions – employer	\$ 1,056,104
2. Contributions – employee	411,042
3. Net investment income	(7,713,129)
4. Benefit payments, including refunds of employee contributions	(3,441,007)
5. Other (Net Transfer)	43,971
6. Net change in plan fiduciary net position	\$ (9,643,019)
7. Plan fiduciary net position – beginning	59,077,578
8. Plan fiduciary net position – ending	<u><u>\$ 49,434,559</u></u>
C. Net pension liability/(asset)	<u><u>\$ 7,075,663</u></u>
D. Plan fiduciary net position as a percentage of the total pension liability	87.48%
E. Covered Valuation payroll⁽¹⁾	\$ 8,866,599
F. Net pension liability as a percentage of covered valuation payroll	79.80%

⁽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	\$ 62,316,408	\$ 56,510,222	\$ 51,774,984
Plan Fiduciary Net Position	49,434,559	49,434,559	49,434,559
Net Pension Liability/(Asset)	\$ 12,881,849	\$ 7,075,663	\$ 2,340,425

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	\$ 871,213	\$ 793,584	\$ 837,511	\$ 826,609	\$ 777,672	\$ 848,202	\$ 866,048	\$ 869,695	\$ 915,435	
Interest on the Total Pension Liability	3,869,833	3,733,309	3,577,522	3,418,240	3,324,644	3,251,677	3,120,202	2,969,300	2,690,242	
Benefit Changes	0	0	0	0	0	0	0	0	0	
Difference between Expected and Actual Experience	548,285	613,624	1,225,134	840,609	193,364	711,424	(35,527)	265,732	347,151	
Assumption Changes	0	0	(436,455)	0	1,190,789	(1,388,230)	(194,112)	94,426	1,806,494	
Benefit Payments and Refunds	(3,441,007)	(3,151,488)	(2,914,449)	(2,873,366)	(2,509,401)	(2,320,450)	(2,115,056)	(2,021,132)	(1,798,506)	
Net Change in Total Pension Liability	1,848,324	1,989,029	2,289,263	2,212,092	2,977,068	1,102,623	1,641,555	2,178,021	3,960,816	
Total Pension Liability - Beginning	54,661,898	52,672,869	50,383,606	48,171,514	45,194,446	44,091,823	42,450,268	40,272,247	36,311,431	
Total Pension Liability - Ending (a)	\$ 56,510,222	\$ 54,661,898	\$ 52,672,869	\$ 50,383,606	\$ 48,171,514	\$ 45,194,446	\$ 44,091,823	\$ 42,450,268	\$ 40,272,247	
Plan Fiduciary Net Position										
Employer Contributions	\$ 1,056,104	\$ 1,086,889	\$ 973,463	\$ 813,477	\$ 912,384	\$ 919,875	\$ 943,309	\$ 896,167	\$ 916,975	
Employee Contributions	411,042	402,211	365,677	367,632	351,229	365,413	348,069	348,858	346,070	
Pension Plan Net Investment Income	(7,713,129)	8,904,656	6,688,762	7,616,869	(2,448,992)	6,780,945	2,489,530	180,413	2,091,460	
Benefit Payments and Refunds	(3,441,007)	(3,151,488)	(2,914,449)	(2,873,366)	(2,509,401)	(2,320,450)	(2,115,056)	(2,021,132)	(1,798,506)	
Other	43,971	(54,731)	344,528	372,955	543,908	(743,786)	384,179	358,469	360,607	
Net Change in Plan Fiduciary Net Position	(9,643,019)	7,187,537	5,457,981	6,297,567	(3,150,872)	5,001,997	2,050,031	(237,225)	1,916,606	
Plan Fiduciary Net Position - Beginning	59,077,578	51,890,041	46,432,060	40,134,493	43,285,365	38,283,368	36,233,337	36,470,562	34,553,956	
Plan Fiduciary Net Position - Ending (b)	\$ 49,434,559	\$ 59,077,578	\$ 51,890,041	\$ 46,432,060	\$ 40,134,493	\$ 43,285,365	\$ 38,283,368	\$ 36,233,337	\$ 36,470,562	
Net Pension Liability/(Asset) - Ending (a) - (b)	7,075,663	(4,415,680)	782,828	3,951,546	8,037,021	1,909,081	5,808,455	6,216,931	3,801,685	
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	87.48%	108.08%	98.51%	92.16%	83.32%	95.78%	86.83%	85.35%	90.56%	
Covered Valuation Payroll⁽¹⁾	\$ 8,866,599	\$ 8,784,307	\$ 8,117,039	\$ 7,992,929	\$ 7,804,690	\$ 7,779,557	\$ 7,734,843	\$ 7,633,456	\$ 7,545,460	
Net Pension Liability as a Percentage of Covered Valuation Payroll	79.80%	(50.27)%	9.64%	49.44%	102.98%	24.54%	75.09%	81.44%	50.38%	

⁽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
2014	\$ 909,982	\$ 916,975	\$ (6,993)	\$ 7,545,460	12.15%
2015	896,168	896,167	1	7,633,456	11.74%
2016	931,275	943,309	(12,034)	7,734,843	12.20%
2017	908,652	919,875	(11,223)	7,779,557	11.82%
2018	898,320	912,384	(14,064)	7,804,690	11.69%
2019	805,687	813,477	(7,790)	7,992,929	10.18%
2020	973,233	973,463	(230)	8,117,039	11.99%
2021	1,053,238	1,086,889	(33,651)	8,784,307	12.37%
2022	942,519 *	1,056,104	(113,585)	8,866,599	11.91%

* Estimated based on contribution rate of 10.63% and covered valuation payroll of \$8,866,599.
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)	\$	7,186,181
2. Employer Contribution Reserve (EAF assets from IMRF)		7,180,541
3. Annuitant Reserve		35,259,660
4. Miscellaneous Adjustment*		<u>(191,823)</u>
5. Net Market Value	\$	49,434,559

* 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	\$	943,095
b.) Accelerated payments and Reserve Payments		<u>113,009</u>
Total Employer Contributions (a+b)	\$	1,056,104

2. Member

a.) Wage Reporting	\$	399,213
b.) Member Payments (i.e., ERI, Pension Payments)		<u>11,829</u>
Sub-total (Amount used for valuation on Schedule of Changes Page 11)	\$	411,042
c.) Voluntary Additional Plan	\$	<u>132,309</u>
Total Member Contributions (a+b+c)	\$	543,351

Total Employer and Member Contributions (1+2) \$ **1,599,455**



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	\$ 8,866,599				
2023	8,635,073	\$ 388,578	\$ 451,205	\$ 238,576	\$ 1,078,358
2024	7,916,392	356,238	406,567	329,995	1,092,799
2025	7,328,059	329,763	370,522	433,117	1,133,401
2026	6,828,749	307,294	343,918	549,581	1,200,792
2027	6,382,556	287,215	320,176	681,329	1,288,721
2028	5,984,912	269,321	299,039	698,362	1,266,722
2029	5,627,576	253,241	279,505	715,821	1,248,567
2030	5,297,773	238,400	261,545	733,717	1,233,661
2031	4,997,857	224,904	244,750	752,060	1,221,714
2032	4,699,831	211,492	228,753	770,861	1,211,107
2033	4,403,302	198,149	213,007	790,133	1,201,289
2034	4,123,735	185,568	197,843	809,886	1,193,297
2035	3,824,702	172,112	182,355	830,133	1,184,600
2036	3,509,730	157,938	166,291	850,886	1,175,115
2037	3,211,079	144,499	150,864	872,159	1,167,521
2038	2,935,311	132,089	136,740	893,962	1,162,791
2039	2,682,869	120,729	123,913	916,312	1,160,954
2040	2,439,881	109,795	111,720	939,219	1,160,733
2041	2,204,414	99,199	100,280	962,700	1,162,179
2042	1,991,620	89,623	89,610	986,767	1,166,000
2043	1,809,754	81,439	80,707	0	162,146
2044	1,648,593	74,187	72,700	0	146,887
2045	1,501,014	67,546	65,297	0	132,842
2046	1,365,618	61,453	58,456	0	119,909
2047	1,232,242	55,451	51,889	0	107,340
2048	1,111,287	50,008	46,022	0	96,030
2049	999,385	44,972	40,692	0	85,665
2050	866,640	38,999	34,770	0	73,769
2051	756,691	34,051	30,058	0	64,109
2052	677,381	30,482	26,706	0	57,188
2053	595,476	26,796	23,240	0	50,036
2054	514,374	23,147	19,921	0	43,068
2055	418,201	18,819	16,072	0	34,891
2056	343,922	15,476	13,149	0	28,625
2057	291,041	13,097	11,069	0	24,166
2058	223,596	10,062	8,482	0	18,544
2059	166,467	7,491	6,298	0	13,789
2060	123,049	5,537	4,643	0	10,180
2061	83,289	3,748	3,143	0	6,891
2062	39,909	1,796	1,506	0	3,302
2063	10,820	487	410	0	897
2064	3,348	151	130	0	281
2065	1,345	61	58	0	118
2066	665	30	32	0	62
2067	370	17	20	0	37
2068	268	12	15	0	27
2069	119	5	6	0	11
2070	1	0	0	0	0
2071	0	0	0	0	0
2072	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 Contributions (Concluded)

Year	Contributions from				Total Contributions
	Payroll for Current Employees	Current Employees	Normal Cost Contributions	UAL Contributions	
2073	\$ 0	\$ 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	\$ 49,434,559	\$ 1,078,358	\$ 3,749,977	\$ 3,488,854	\$ 50,251,794
2024	50,251,794	1,092,800	3,889,785	3,543,638	50,998,448
2025	50,998,448	1,133,402	4,029,639	3,594,236	51,696,446
2026	51,696,446	1,200,792	4,138,297	3,643,371	52,402,312
2027	52,402,312	1,288,720	4,231,062	3,694,374	53,154,345
2028	53,154,345	1,266,722	4,330,342	3,744,577	53,835,301
2029	53,835,301	1,248,567	4,437,159	3,789,495	54,436,205
2030	54,436,205	1,233,661	4,541,838	3,828,802	54,956,829
2031	54,956,829	1,221,713	4,637,906	3,862,700	55,403,336
2032	55,403,336	1,211,107	4,728,354	3,891,472	55,777,562
2033	55,777,562	1,201,288	4,818,608	3,915,040	56,075,282
2034	56,075,282	1,193,297	4,913,291	3,932,968	56,288,255
2035	56,288,255	1,184,600	5,019,821	3,944,304	56,397,339
2036	56,397,339	1,175,115	5,109,207	3,948,691	56,411,938
2037	56,411,938	1,167,521	5,187,462	3,946,692	56,338,689
2038	56,338,689	1,162,791	5,245,454	3,939,148	56,195,174
2039	56,195,174	1,160,953	5,284,835	3,927,275	55,998,568
2040	55,998,568	1,160,733	5,314,345	3,911,962	55,756,918
2041	55,756,918	1,162,179	5,327,864	3,894,013	55,485,245
2042	55,485,245	1,166,000	5,318,277	3,874,794	55,207,762
2043	55,207,762	162,146	5,302,371	3,819,490	53,887,027
2044	53,887,027	146,887	5,265,198	3,724,517	52,493,233
2045	52,493,233	132,842	5,199,677	3,625,300	51,051,699
2046	51,051,699	119,909	5,126,514	3,522,934	49,568,029
2047	49,568,029	107,340	5,047,643	3,417,729	48,045,456
2048	48,045,456	96,030	4,947,359	3,310,512	46,504,638
2049	46,504,638	85,665	4,862,878	3,201,442	44,928,867
2050	44,928,867	73,769	4,781,764	3,089,664	43,310,537
2051	43,310,537	64,109	4,648,300	2,976,744	41,703,090
2052	41,703,090	57,188	4,524,370	2,864,372	40,100,280
2053	40,100,280	50,036	4,411,876	2,751,920	38,490,360
2054	38,490,360	43,068	4,294,985	2,639,116	36,877,559
2055	36,877,559	34,891	4,192,581	2,525,544	35,245,412
2056	35,245,412	28,625	4,049,232	2,412,095	33,636,901
2057	33,636,901	24,166	3,915,885	2,300,069	32,045,251
2058	32,045,251	18,544	3,800,565	2,188,581	30,451,810
2059	30,451,810	13,789	3,676,144	2,077,319	28,866,774
2060	28,866,774	10,180	3,548,724	1,966,813	27,295,043
2061	27,295,043	6,891	3,423,973	1,857,189	25,735,149
2062	25,735,149	3,302	3,312,989	1,747,921	24,173,383
2063	24,173,383	897	3,176,797	1,639,458	22,636,942
2064	22,636,942	281	3,015,344	1,533,795	21,155,673
2065	21,155,673	118	2,855,029	1,432,106	19,732,869
2066	19,732,869	62	2,698,065	1,334,542	18,369,407
2067	18,369,407	37	2,545,088	1,241,138	17,065,494
2068	17,065,494	27	2,396,183	1,151,907	15,821,245
2069	15,821,245	11	2,251,602	1,066,848	14,636,503
2070	14,636,503	0	2,111,414	985,947	13,511,036
2071	13,511,036	0	1,975,977	909,174	12,444,232
2072	12,444,232	0	1,845,601	836,474	11,435,106

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	\$ 11,435,106	\$ 0	\$ 1,720,445	\$ 767,770	\$ 10,482,431
2074	10,482,431	0	1,600,633	702,969	9,584,767
2075	9,584,767	0	1,486,266	641,961	8,740,461
2076	8,740,461	0	1,377,393	584,627	7,947,695
2077	7,947,695	0	1,273,989	530,834	7,204,540
2078	7,204,540	0	1,175,974	480,446	6,509,012
2079	6,509,012	0	1,083,208	433,324	5,859,128
2080	5,859,128	0	995,469	389,332	5,252,991
2081	5,252,991	0	912,498	348,343	4,688,836
2082	4,688,836	0	834,024	310,236	4,165,048
2083	4,165,048	0	759,803	274,905	3,680,151
2084	3,680,151	0	689,649	242,249	3,232,750
2085	3,232,750	0	623,382	212,172	2,821,540
2086	2,821,540	0	560,831	184,587	2,445,297
2087	2,445,297	0	501,860	159,410	2,102,847
2088	2,102,847	0	446,361	136,559	1,793,045
2089	1,793,045	0	394,243	115,954	1,514,756
2090	1,514,756	0	345,465	97,516	1,266,807
2091	1,266,807	0	300,027	81,158	1,047,937
2092	1,047,937	0	257,979	66,787	856,745
2093	856,745	0	219,402	54,300	691,644
2094	691,644	0	184,368	43,578	550,854
2095	550,854	0	152,929	34,490	432,414
2096	432,414	0	125,090	26,895	334,219
2097	334,219	0	100,797	20,641	254,062
2098	254,062	0	79,922	15,573	189,713
2099	189,713	0	62,269	11,536	138,981
2100	138,981	0	47,602	8,381	99,759
2101	99,759	0	35,652	5,963	70,070
2102	70,070	0	26,119	4,150	48,101
2103	48,101	0	18,692	2,822	32,231
2104	32,231	0	13,047	1,872	21,056
2105	21,056	0	8,871	1,211	13,395
2106	13,395	0	5,868	762	8,290
2107	8,290	0	3,771	467	4,986
2108	4,986	0	2,352	278	2,912
2109	2,912	0	1,422	160	1,650
2110	1,650	0	832	90	908
2111	908	0	472	49	485
2112	485	0	259	26	252
2113	252	0	138	13	128
2114	128	0	71	7	63
2115	63	0	36	3	31
2116	31	0	18	2	14
2117	14	0	9	1	7
2118	7	0	4	0	3
2119	3	0	2	0	1
2120	1	0	1	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

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	\$ 49,434,559	\$ 3,749,977	\$ 3,749,977	\$ 0	\$ 3,621,012	\$ 0	\$ 3,621,012
2024	50,251,794	3,889,785	3,889,785	0	3,502,108	0	3,502,108
2025	50,998,448	4,029,639	4,029,639	0	3,382,773	0	3,382,773
2026	51,696,446	4,138,297	4,138,297	0	3,239,150	0	3,239,150
2027	52,402,312	4,231,062	4,231,062	0	3,087,888	0	3,087,888
2028	53,154,345	4,330,342	4,330,342	0	2,946,708	0	2,946,708
2029	53,835,301	4,437,159	4,437,159	0	2,815,286	0	2,815,286
2030	54,436,205	4,541,838	4,541,838	0	2,686,902	0	2,686,902
2031	54,956,829	4,637,906	4,637,906	0	2,558,261	0	2,558,261
2032	55,403,336	4,728,354	4,728,354	0	2,431,843	0	2,431,843
2033	55,777,562	4,818,608	4,818,608	0	2,310,734	0	2,310,734
2034	56,075,282	4,913,291	4,913,291	0	2,196,866	0	2,196,866
2035	56,288,255	5,019,821	5,019,821	0	2,092,772	0	2,092,772
2036	56,397,339	5,109,207	5,109,207	0	1,986,049	0	1,986,049
2037	56,411,938	5,187,462	5,187,462	0	1,880,157	0	1,880,157
2038	56,338,689	5,245,454	5,245,454	0	1,772,658	0	1,772,658
2039	56,195,174	5,284,835	5,284,835	0	1,665,237	0	1,665,237
2040	55,998,568	5,314,345	5,314,345	0	1,561,338	0	1,561,338
2041	55,756,918	5,327,864	5,327,864	0	1,459,497	0	1,459,497
2042	55,485,245	5,318,277	5,318,277	0	1,358,387	0	1,358,387
2043	55,207,762	5,302,371	5,302,371	0	1,262,774	0	1,262,774
2044	53,887,027	5,265,198	5,265,198	0	1,169,157	0	1,169,157
2045	52,493,233	5,199,677	5,199,677	0	1,076,557	0	1,076,557
2046	51,051,699	5,126,514	5,126,514	0	989,659	0	989,659
2047	49,568,029	5,047,643	5,047,643	0	908,562	0	908,562
2048	48,045,456	4,947,359	4,947,359	0	830,314	0	830,314
2049	46,504,638	4,862,878	4,862,878	0	760,965	0	760,965
2050	44,928,867	4,781,764	4,781,764	0	697,690	0	697,690
2051	43,310,537	4,648,300	4,648,300	0	632,370	0	632,370
2052	41,703,090	4,524,370	4,524,370	0	573,902	0	573,902
2053	40,100,280	4,411,876	4,411,876	0	521,802	0	521,802
2054	38,490,360	4,294,985	4,294,985	0	473,638	0	473,638
2055	36,877,559	4,192,581	4,192,581	0	431,091	0	431,091
2056	35,245,412	4,049,232	4,049,232	0	388,207	0	388,207
2057	33,636,901	3,915,885	3,915,885	0	350,044	0	350,044
2058	32,045,251	3,800,565	3,800,565	0	316,770	0	316,770
2059	30,451,810	3,676,144	3,676,144	0	285,687	0	285,687
2060	28,866,774	3,548,724	3,548,724	0	257,142	0	257,142
2061	27,295,043	3,423,973	3,423,973	0	231,331	0	231,331
2062	25,735,149	3,312,989	3,312,989	0	208,702	0	208,702
2063	24,173,383	3,176,797	3,176,797	0	186,594	0	186,594
2064	22,636,942	3,015,344	3,015,344	0	165,139	0	165,139
2065	21,155,673	2,855,029	2,855,029	0	145,789	0	145,789
2066	19,732,869	2,698,065	2,698,065	0	128,461	0	128,461
2067	18,369,407	2,545,088	2,545,088	0	112,986	0	112,986
2068	17,065,494	2,396,183	2,396,183	0	99,184	0	99,184
2069	15,821,245	2,251,602	2,251,602	0	86,899	0	86,899
2070	14,636,503	2,111,414	2,111,414	0	75,980	0	75,980
2071	13,511,036	1,975,977	1,975,977	0	66,300	0	66,300
2072	12,444,232	1,845,601	1,845,601	0	57,739	0	57,739

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.



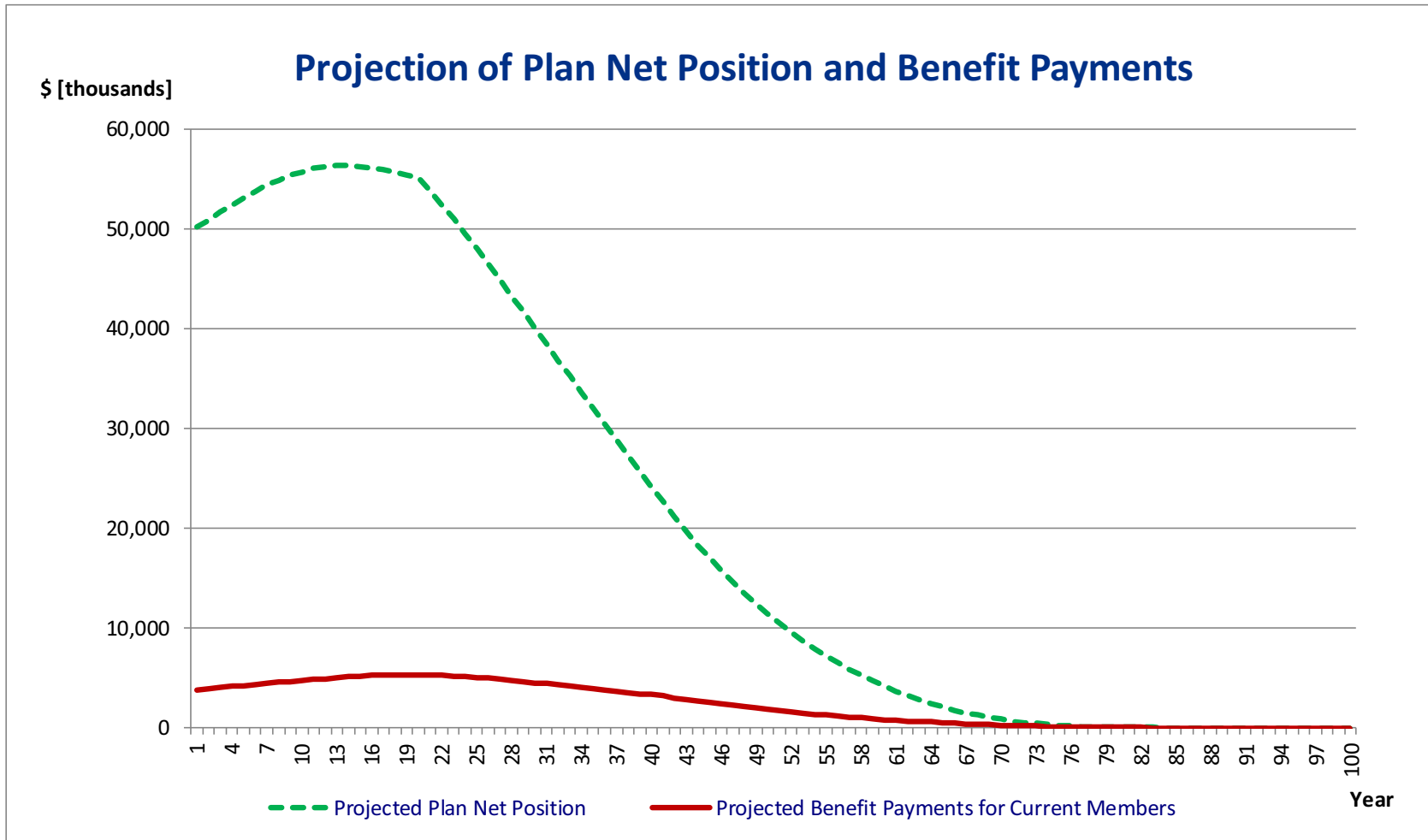
Single Discount Rate Development

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	\$ 11,435,106	\$ 1,720,445	\$ 1,720,445	\$ 0	\$ 50,185	\$ 0	\$ 50,185	
2074	10,482,431	1,600,633	1,600,633	0	43,534	0	43,534	
2075	9,584,767	1,486,266	1,486,266	0	37,691	0	37,691	
2076	8,740,461	1,377,393	1,377,393	0	32,569	0	32,569	
2077	7,947,695	1,273,989	1,273,989	0	28,087	0	28,087	
2078	7,204,540	1,175,974	1,175,974	0	24,174	0	24,174	
2079	6,509,012	1,083,208	1,083,208	0	20,762	0	20,762	
2080	5,859,128	995,469	995,469	0	17,790	0	17,790	
2081	5,252,991	912,498	912,498	0	15,205	0	15,205	
2082	4,688,836	834,024	834,024	0	12,958	0	12,958	
2083	4,165,048	759,803	759,803	0	11,007	0	11,007	
2084	3,680,151	689,649	689,649	0	9,315	0	9,315	
2085	3,232,750	623,382	623,382	0	7,851	0	7,851	
2086	2,821,540	560,831	560,831	0	6,586	0	6,586	
2087	2,445,297	501,860	501,860	0	5,495	0	5,495	
2088	2,102,847	446,361	446,361	0	4,557	0	4,557	
2089	1,793,045	394,243	394,243	0	3,753	0	3,753	
2090	1,514,756	345,465	345,465	0	3,066	0	3,066	
2091	1,266,807	300,027	300,027	0	2,483	0	2,483	
2092	1,047,937	257,979	257,979	0	1,991	0	1,991	
2093	856,745	219,402	219,402	0	1,578	0	1,578	
2094	691,644	184,368	184,368	0	1,237	0	1,237	
2095	550,854	152,929	152,929	0	957	0	957	
2096	432,414	125,090	125,090	0	729	0	729	
2097	334,219	100,797	100,797	0	548	0	548	
2098	254,062	79,922	79,922	0	405	0	405	
2099	189,713	62,269	62,269	0	294	0	294	
2100	138,981	47,602	47,602	0	210	0	210	
2101	99,759	35,652	35,652	0	147	0	147	
2102	70,070	26,119	26,119	0	100	0	100	
2103	48,101	18,692	18,692	0	67	0	67	
2104	32,231	13,047	13,047	0	43	0	43	
2105	21,056	8,871	8,871	0	28	0	28	
2106	13,395	5,868	5,868	0	17	0	17	
2107	8,290	3,771	3,771	0	10	0	10	
2108	4,986	2,352	2,352	0	6	0	6	
2109	2,912	1,422	1,422	0	3	0	3	
2110	1,650	832	832	0	2	0	2	
2111	908	472	472	0	1	0	1	
2112	485	259	259	0	0	0	0	
2113	252	138	138	0	0	0	0	
2114	128	71	71	0	0	0	0	
2115	63	36	36	0	0	0	0	
2116	31	18	18	0	0	0	0	
2117	14	9	9	0	0	0	0	
2118	7	4	4	0	0	0	0	
2119	3	2	2	0	0	0	0	
2120	1	1	1	0	0	0	0	
2121	0	0	0	0	0	0	0	
2122	0	0	0	0	0	0	0	
Totals	\$	62,392,505	\$	-	\$	62,392,505	\$	62,392,505

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.