

Village of Arlington Heights Regular

GASB Statement No. 68 Employer Reporting

Accounting Schedules

December 31, 2022

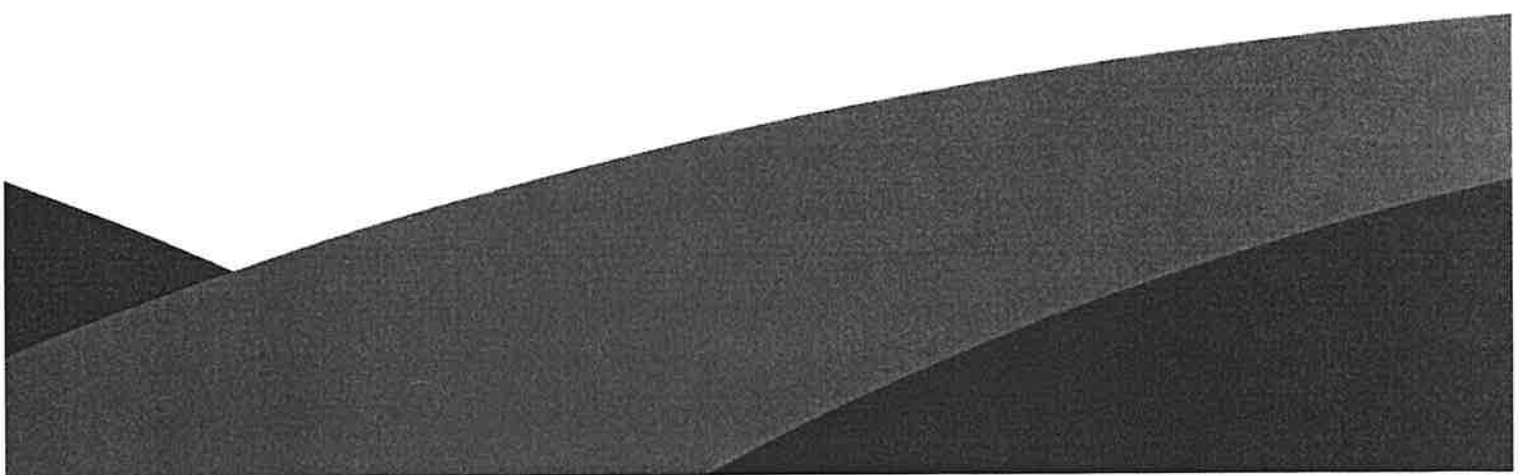


Table of Contents

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

Village of Arlington Heights
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 Village of Arlington Heights only in its entirety and only with the permission of Village of Arlington Heights. 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 Village of Arlington Heights. 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	526
- Inactive, Non-Retired Members	241
- Active Members	383
- Total	1,150
Covered Valuation Payroll ⁽¹⁾	\$ 28,465,522

Net Pension Liability

Total Pension Liability/(Asset)	\$ 214,965,592
Plan Fiduciary Net Position	192,044,403
Net Pension Liability/(Asset)	\$ 22,921,189
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	89.34%
Net Pension Liability as a Percentage of Covered Valuation Payroll	80.52%

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) \$ 3,413,253

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	\$ 2,195,027	\$ 136,298
Changes in assumptions	0	247,754
Net difference between projected and actual earnings on pension plan investments	36,281,856	20,911,385
Total	\$ 38,476,883	\$ 21,295,437

⁽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	\$	2,607,779
2. Interest on the Total Pension Liability		14,674,957
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(1,281,587)
5. Projected Earnings on Plan Investments (made negative for addition here)		(16,269,777)
6. Other Changes in Plan Fiduciary Net Position		(719,599)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		1,210,258
8. Recognition of Outflow (Inflow) of Resources due to Assets		3,191,222
9. Total Pension Expense/(Income)	\$	3,413,253

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 3,735 years. Additionally, the total plan membership (active employees and inactive employees) was 1,111. 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 3.3618 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	\$ 2,645,395
2. Assumption Changes (gains) or losses	\$ 0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	3.3618
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	\$ 786,898
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	<u>\$ 786,898</u>
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	\$ 1,858,497
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	<u>\$ 1,858,497</u>

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ 45,352,320
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	\$ 9,070,464
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ 36,281,856

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.



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	(648,919)	3.7204	0	0	0.0000
2016	1,640,544	3.6877	0	0	0.0000
2017	(92,058)	3.7101	0	0	0.0000
2018	1,256,791	3.4816	0	0	0.0000
2019	2,419,520	3.4927	341,312	0	0.0000
2020	2,412,173	3.4864	691,881	336,530	0.4864
2021	(337,238)	3.3566	(100,470)	(136,298)	1.3566
2022	2,645,395	3.3618	786,898	1,858,497	2.3618
Total			\$ 1,719,621	\$ 2,058,729	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	\$ 0	1.0000	\$ 0	\$ 0	0.0000
2015	395,156	3.7204	0	0	0.0000
2016	(611,951)	3.6877	0	0	0.0000
2017	(5,760,640)	3.7101	0	0	0.0000
2018	5,048,651	3.4816	0	0	0.0000
2019	0	3.4927	0	0	0.0000
2020	(1,775,843)	3.4864	(509,363)	(247,754)	0.4864
2021	0	3.3566	0	0	1.3566
2022	0	3.3618	0	0	2.3618
Total			\$ (509,363)	\$ (247,754)	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2018	\$ 22,142,840	5.0000	\$ 4,428,568	\$ 0	0.0000
2019	(18,561,896)	5.0000	(3,712,379)	(3,712,380)	1.0000
2020	(12,936,438)	5.0000	(2,587,288)	(5,174,574)	2.0000
2021	(20,040,717)	5.0000	(4,008,143)	(12,024,431)	3.0000
2022	45,352,320	5.0000	9,070,464	36,281,856	4.0000
Total			\$ 3,191,222	\$ 15,370,471	



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	\$ 2,607,779
2. Interest on the Total Pension Liability	14,674,957
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	2,645,395
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(12,143,697)
7. Net change in total pension liability	\$ 7,784,434
8. Total pension liability – beginning	207,181,158
9. Total pension liability – ending	<u>\$ 214,965,592</u>
B. Plan fiduciary net position	
1. Contributions – employer	\$ 3,574,965
2. Contributions – employee	1,281,587
3. Net investment income	(29,082,543)
4. Benefit payments, including refunds of employee contributions	(12,143,697)
5. Other (Net Transfer)	719,599
6. Net change in plan fiduciary net position	\$ (35,650,089)
7. Plan fiduciary net position – beginning	227,694,492
8. Plan fiduciary net position – ending	<u>\$ 192,044,403</u>
C. Net pension liability/(asset)	<u>\$ 22,921,189</u>
D. Plan fiduciary net position as a percentage of the total pension liability	89.34%
E. Covered Valuation payroll⁽¹⁾	\$ 28,465,522
F. Net pension liability as a percentage of covered valuation payroll	80.52%

LOSS

* ON EXCEL
THIS GOES IN
AS A negative
because it's
A LIABILITY
*

⁽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

	Current Single Discount		
	1% Decrease 6.25%	Rate Assumption 7.25%	1% Increase 8.25%
Total Pension Liability	\$ 238,845,022	\$ 214,965,592	\$ 195,724,680
Plan Fiduciary Net Position	192,044,403	192,044,403	192,044,403
Net Pension Liability/(Asset)	\$ 46,800,619	\$ 22,921,189	\$ 3,680,277



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	\$ 2,607,779	\$ 2,598,026	\$ 2,768,600	\$ 2,695,223	\$ 2,526,777	\$ 2,700,511	\$ 2,639,543	\$ 2,640,660		
Service Cost	14,674,957	14,331,584	13,898,960	13,316,051	12,874,610	12,858,220	12,281,628	11,869,028		
Interest on the Total Pension Liability	0	0	0	0	0	0	0	0		
Benefit Changes	2,645,395	(337,238)	2,412,173	2,419,520	1,256,791	(92,058)	1,640,544	(648,919)		
Difference between Expected and Actual Experience	0	0	(1,775,843)	0	5,048,651	(5,760,640)	(611,951)	395,156		
Assumption Changes	(12,143,697)	(11,578,443)	(10,924,301)	(9,930,417)	(9,635,282)	(9,165,978)	(8,734,040)	(7,881,295)		
Benefit Payments and Refunds	7,784,434	5,013,929	6,379,589	8,500,377	12,071,547	540,055	7,215,724	6,374,630		
Net Change in Total Pension Liability	207,181,158	202,167,229	195,787,640	187,287,263	175,215,716	174,675,661	167,459,937	161,085,307		
Total Pension Liability - Beginning	\$ 214,965,592	\$ 207,181,158	\$ 202,167,229	\$ 195,787,640	\$ 187,287,263	\$ 175,215,716	\$ 174,675,661	\$ 167,459,937		
Total Pension Liability - Ending (a)										
Plan Fiduciary Net Position	\$ 3,574,965	\$ 3,428,023	\$ 3,502,858	\$ 2,718,454	\$ 3,355,360	\$ 3,170,250	\$ 3,257,572	\$ 3,168,474		
Employer Contributions	1,281,587	1,230,154	1,314,647	1,290,982	1,222,046	1,158,454	1,145,096	1,182,657		
Employee Contributions	(29,082,543)	34,374,924	25,886,710	29,736,794	(9,519,120)	26,872,858	9,933,011	723,795		
Pension Plan Net Investment Income	(12,143,697)	(11,578,443)	(10,924,301)	(9,930,417)	(9,635,282)	(9,165,978)	(8,734,040)	(7,881,295)		
Benefit Payments and Refunds	719,599	(1,866,986)	1,298,122	231,905	1,425,713	(2,743,611)	555,713	965,300		
Other	(35,650,089)	25,587,672	21,078,036	24,047,718	(13,151,283)	19,291,973	6,157,352	(1,841,069)		
Net Change in Plan Fiduciary Net Position	227,694,492	202,106,820	181,028,784	156,981,066	170,132,349	150,840,376	144,683,024	146,524,093		
Plan Fiduciary Net Position - Beginning	\$ 192,044,403	\$ 227,694,492	\$ 202,106,820	\$ 181,028,784	\$ 156,981,066	\$ 170,132,349	\$ 150,840,376	\$ 144,683,024		
Plan Fiduciary Net Position - Ending (b)	22,921,189	(20,513,334)	60,409	14,758,856	30,306,197	5,083,967	23,835,285	22,776,913		
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	89.34%	109.90%	99.97%	92.46%	83.82%	97.10%	86.35%	86.40%		
Covered Valuation Payroll⁽¹⁾	\$ 28,465,522	\$ 27,336,705	\$ 27,713,351	\$ 27,157,382	\$ 26,335,298	\$ 25,690,842	\$ 24,924,034	\$ 24,380,386		
Net Pension Liability as a Percentage of Covered Valuation Payroll	80.52%	(75.04)%	0.22%	54.35%	115.08%	19.79%	95.63%	93.42%		

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



Multiyear Schedule of Contributions

Last 10 Calendar Years

<u>Calendar Year Ending December 31,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Valuation Payroll</u>	<u>Actual Contribution as a % of Covered Valuation Payroll</u>
2015	\$ 3,159,698	\$ 3,168,474	\$ (8,776)	\$ 24,380,386	13.00%
2016	3,257,571	3,257,572	(1)	24,924,034	13.07%
2017	3,170,250	3,170,250	(0)	25,690,842	12.34%
2018	3,349,850	3,355,360	(5,510)	26,335,298	12.74%
2019	2,718,454	2,718,454	0	27,157,382	10.01%
2020	3,502,968	3,502,858	110	27,713,351	12.64%
2021	3,428,023	3,428,023	0	27,336,705	12.54%
2022	2,960,414 *	3,574,965	(614,551)	28,465,522	12.56%

* Estimated based on contribution rate of 10.40% and covered valuation payroll of \$28,465,522.
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)	\$	30,124,966
2. Employer Contribution Reserve (EAF assets from IMRF)		34,894,372
3. Annuitant Reserve		127,770,265
4. Miscellaneous Adjustment*		<u>(745,200)</u>
5. Net Market Value	\$	192,044,403

* 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	\$	2,960,413
b.) Accelerated payments and Reserve Payments		<u>614,552</u>
Total Employer Contributions (a+b)	\$	3,574,965

2. Member

a.) Wage Reporting	\$	1,280,951
b.) Member Payments (i.e., ERI, Pension Payments)		<u>636</u>
Sub-total (Amount used for valuation on Schedule of Changes Page 11)	\$	1,281,587
c.) Voluntary Additional Plan	\$	<u>360,701</u>
Total Member Contributions (a+b+c)	\$	1,642,288

Total Employer and Member Contributions (1+2)	\$	5,217,253
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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	\$ 28,465,522				
2023	27,993,298	\$ 1,259,698	\$ 1,551,771	\$ 452,689	\$ 3,264,159
2024	26,209,229	1,179,415	1,411,215	795,985	3,386,616
2025	24,701,584	1,111,571	1,310,407	1,184,447	3,606,425
2026	23,357,503	1,051,088	1,234,463	1,624,433	3,909,984
2027	22,083,707	993,767	1,162,754	2,123,486	4,280,007
2028	20,919,674	941,385	1,097,309	2,176,573	4,215,267
2029	19,822,361	892,006	1,033,844	2,230,987	4,156,837
2030	18,769,865	844,644	973,356	2,286,762	4,104,762
2031	17,771,432	799,714	916,284	2,343,931	4,059,929
2032	16,793,623	755,713	859,196	2,402,529	4,017,438
2033	15,876,665	714,450	805,973	2,462,592	3,983,015
2034	14,967,945	673,558	755,382	2,524,157	3,953,096
2035	14,031,110	631,400	701,134	2,587,261	3,919,794
2036	13,087,087	588,919	648,760	2,651,943	3,889,622
2037	12,171,752	547,729	596,130	2,718,241	3,862,100
2038	11,323,713	509,567	547,847	2,786,197	3,843,611
2039	10,541,121	474,350	503,701	2,855,852	3,833,904
2040	9,799,165	440,962	462,407	2,927,248	3,830,617
2041	9,082,727	408,723	422,283	3,000,430	3,831,436
2042	8,404,158	378,187	385,725	3,075,440	3,839,352
2043	7,756,411	349,039	350,602	0	699,640
2044	7,119,857	320,394	317,585	0	637,978
2045	6,520,470	293,421	286,962	0	580,384
2046	5,936,848	267,158	257,149	0	524,307
2047	5,317,155	239,272	226,610	0	465,882
2048	4,677,647	210,494	197,032	0	407,526
2049	4,067,435	183,035	169,308	0	352,343
2050	3,524,159	158,587	145,294	0	303,881
2051	2,991,994	134,640	122,165	0	256,804
2052	2,438,567	109,736	98,599	0	208,335
2053	1,937,633	87,193	77,960	0	165,153
2054	1,480,304	66,614	59,412	0	126,026
2055	1,088,846	48,998	43,593	0	92,591
2056	800,862	36,039	32,063	0	68,102
2057	555,420	24,994	22,292	0	47,286
2058	371,244	16,706	15,011	0	31,717
2059	266,486	11,992	10,934	0	22,926
2060	190,458	8,571	7,833	0	16,404
2061	146,101	6,575	6,023	0	12,598
2062	104,740	4,713	4,287	0	9,000
2063	52,025	2,341	2,114	0	4,455
2064	22,104	995	933	0	1,928
2065	11,116	500	510	0	1,010
2066	4,931	222	243	0	465
2067	2,456	111	133	0	243
2068	1,252	56	72	0	128
2069	348	16	20	0	36
2070	5	0	0	0	1
2071	1	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				
	Payroll for Current Employees	Current Employees	Normal Cost Contributions	UAL Contributions	Total 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	Total Contributions	Benefit Payments	Investment Earnings at 7.25%	Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2023	\$ 192,044,403	\$ 3,264,159	\$ 12,755,495	\$ 13,585,178	\$ 196,138,245
2024	196,138,245	3,386,616	13,340,826	13,865,496	200,049,532
2025	200,049,532	3,606,425	13,889,258	14,137,360	203,904,059
2026	203,904,059	3,909,983	14,454,938	14,407,478	207,766,582
2027	207,766,582	4,280,007	15,015,154	14,680,737	211,712,171
2028	211,712,171	4,215,267	15,561,148	14,945,040	215,311,331
2029	215,311,331	4,156,837	16,127,419	15,183,730	218,524,479
2030	218,524,479	4,104,762	16,661,195	15,395,818	221,363,864
2031	221,363,864	4,059,929	17,147,939	15,582,741	223,858,595
2032	223,858,595	4,017,438	17,580,967	15,746,673	226,041,739
2033	226,041,739	3,983,016	17,974,061	15,889,724	227,940,418
2034	227,940,418	3,953,096	18,400,099	16,011,139	229,504,554
2035	229,504,554	3,919,794	18,852,597	16,107,237	230,678,989
2036	230,678,989	3,889,622	19,253,755	16,177,021	231,491,878
2037	231,491,878	3,862,100	19,635,506	16,221,379	231,939,850
2038	231,939,850	3,843,611	19,881,613	16,244,434	232,146,281
2039	232,146,281	3,833,904	20,084,054	16,251,844	232,147,975
2040	232,147,975	3,830,618	20,267,854	16,245,304	231,956,043
2041	231,956,043	3,831,435	20,383,025	16,227,316	231,631,769
2042	231,631,769	3,839,353	20,444,909	16,201,884	231,228,096
2043	231,228,096	699,640	20,458,781	16,060,300	227,529,255
2044	227,529,255	637,978	20,430,430	15,790,948	223,527,752
2045	223,527,752	580,384	20,371,051	15,500,902	219,237,987
2046	219,237,987	524,307	20,281,673	15,191,080	214,671,701
2047	214,671,701	465,882	20,192,271	14,861,128	209,806,441
2048	209,806,441	407,526	20,058,814	14,511,071	204,666,224
2049	204,666,224	352,343	19,902,635	14,142,003	199,257,935
2050	199,257,935	303,881	19,735,415	13,754,131	193,580,533
2051	193,580,533	256,804	19,586,984	13,346,130	187,596,483
2052	187,596,483	208,335	19,460,198	12,915,075	181,259,695
2053	181,259,695	165,153	19,246,072	12,461,747	174,640,523
2054	174,640,523	126,026	19,002,959	11,989,122	167,752,711
2055	167,752,711	92,591	18,696,449	11,499,481	160,648,334
2056	160,648,334	68,102	18,308,618	10,997,354	153,405,173
2057	153,405,173	47,286	17,884,114	10,486,603	146,054,947
2058	146,054,947	31,717	17,364,870	9,971,650	138,693,444
2059	138,693,444	22,926	16,798,102	9,457,814	131,376,082
2060	131,376,082	16,404	16,207,629	8,948,103	124,132,959
2061	124,132,959	12,598	15,565,597	8,445,708	117,025,668
2062	117,025,668	9,000	14,953,971	7,952,084	110,032,782
2063	110,032,782	4,455	14,366,159	7,465,874	103,136,951
2064	103,136,951	1,928	13,732,986	6,988,387	96,394,281
2065	96,394,281	1,010	13,078,364	6,522,825	89,839,752
2066	89,839,752	465	12,424,937	6,070,875	83,486,156
2067	83,486,156	243	11,772,201	5,633,479	77,347,677
2068	77,347,677	128	11,127,052	5,211,413	71,432,166
2069	71,432,166	36	10,489,114	4,805,256	65,748,343
2070	65,748,343	1	9,858,544	4,415,635	60,305,435
2071	60,305,435	0	9,237,347	4,043,149	55,111,237
2072	55,111,237	0	8,627,023	3,688,307	50,172,521

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%		
	(a)	(b)		(c)	(d)	(e)=(a)+(b)-(c)+(d)	
2073	\$ 50,172,521	\$ 0	\$ 8,029,151	\$ 3,351,543	\$ 45,494,913		
2074	45,494,913	0	7,445,503	3,033,204	41,082,614		
2075	41,082,614	0	6,877,864	2,733,529	36,938,279		
2076	36,938,279	0	6,328,161	2,452,643	33,062,760		
2077	33,062,760	0	5,798,234	2,190,542	29,455,068		
2078	29,455,068	0	5,289,721	1,947,095	26,112,442		
2079	26,112,442	0	4,804,105	1,722,050	23,030,387		
2080	23,030,387	0	4,342,602	1,515,038	20,202,823		
2081	20,202,823	0	3,906,231	1,325,581	17,622,173		
2082	17,622,173	0	3,495,756	1,153,104	15,279,520		
2083	15,279,520	0	3,111,602	996,943	13,164,861		
2084	13,164,861	0	2,753,936	856,369	11,267,294		
2085	11,267,294	0	2,422,660	730,594	9,575,228		
2086	9,575,228	0	2,117,472	618,789	8,076,545		
2087	8,076,545	0	1,837,928	520,090	6,758,708		
2088	6,758,708	0	1,583,435	433,611	5,608,884		
2089	5,608,884	0	1,353,364	358,443	4,613,963		
2090	4,613,963	0	1,146,994	293,661	3,760,630		
2091	3,760,630	0	963,414	238,333	3,035,549		
2092	3,035,549	0	801,598	191,528	2,425,479		
2093	2,425,479	0	660,349	152,328	1,917,458		
2094	1,917,458	0	538,297	119,844	1,499,005		
2095	1,499,005	0	433,976	93,221	1,158,250		
2096	1,158,250	0	345,807	71,657	884,100		
2097	884,100	0	272,173	54,404	666,331		
2098	666,331	0	211,480	40,777	495,628		
2099	495,628	0	162,138	30,158	363,649		
2100	363,649	0	122,602	21,998	263,045		
2101	263,045	0	91,404	15,815	187,456		
2102	187,456	0	67,154	11,199	131,501		
2103	131,501	0	48,587	7,803	90,718		
2104	90,718	0	34,588	5,345	61,475		
2105	61,475	0	24,200	3,595	40,871		
2106	40,871	0	16,621	2,371	26,621		
2107	26,621	0	11,190	1,532	16,963		
2108	16,963	0	7,372	967	10,558		
2109	10,558	0	4,746	596	6,408		
2110	6,408	0	2,980	358	3,787		
2111	3,787	0	1,821	210	2,176		
2112	2,176	0	1,082	119	1,213		
2113	1,213	0	623	66	655		
2114	655	0	347	35	343		
2115	343	0	187	18	175		
2116	175	0	97	9	87		
2117	87	0	49	5	43		
2118	43	0	24	2	21		
2119	21	0	12	1	11		
2120	11	0	6	1	6		
2121	6	0	3	0	4		
2122	4	0	1	0	3		

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		Funded Portion of		Unfunded Portion	Present Value of	Present Value of	Present Value of
	Beginning Plan Net	Projected Benefit	Funded Portion of	Benefit Payments	of Benefit	Funded Benefit	Unfunded Benefit	Benefit
	Position	Payments	Benefit Payments	Payments	Payments	Payments using	Payments using	Payments using
						Expected Return	Municipal Bond	Single Discount
(a)	(b)	(c)	(d)	(e)		Rate (v)	Rate (vf)	Rate (sdr)
						(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a (a-.5)
2023	\$ 192,044,403	\$ 12,755,495	\$ 12,755,495	\$ 0	0	\$ 12,316,822	\$ 0	\$ 12,316,822
2024	196,138,245	13,340,826	13,340,826	0	0	12,011,210	0	12,011,210
2025	200,049,532	13,889,258	13,889,258	0	0	11,659,657	0	11,659,657
2026	203,904,059	14,454,938	14,454,938	0	0	11,314,248	0	11,314,248
2027	207,766,582	15,015,154	15,015,154	0	0	10,958,269	0	10,958,269
2028	211,712,171	15,561,148	15,561,148	0	0	10,589,037	0	10,589,037
2029	215,311,331	16,127,419	16,127,419	0	0	10,232,515	0	10,232,515
2030	218,524,479	16,661,195	16,661,195	0	0	9,856,583	0	9,856,583
2031	221,363,864	17,147,939	17,147,939	0	0	9,458,774	0	9,458,774
2032	223,858,595	17,580,967	17,580,967	0	0	9,042,081	0	9,042,081
2033	226,041,739	17,974,061	17,974,061	0	0	8,619,351	0	8,619,351
2034	227,940,418	18,400,099	18,400,099	0	0	8,227,184	0	8,227,184
2035	229,504,554	18,852,597	18,852,597	0	0	7,859,681	0	7,859,681
2036	230,678,989	19,253,755	19,253,755	0	0	7,484,312	0	7,484,312
2037	231,491,878	19,635,506	19,635,506	0	0	7,116,742	0	7,116,742
2038	231,939,850	19,881,613	19,881,613	0	0	6,718,827	0	6,718,827
2039	232,146,281	20,084,054	20,084,054	0	0	6,328,429	0	6,328,429
2040	232,147,975	20,267,854	20,267,854	0	0	5,954,633	0	5,954,633
2041	231,956,043	20,383,025	20,383,025	0	0	5,583,655	0	5,583,655
2042	231,631,769	20,444,909	20,444,909	0	0	5,222,011	0	5,222,011
2043	231,228,096	20,458,781	20,458,781	0	0	4,872,312	0	4,872,312
2044	227,529,255	20,430,430	20,430,430	0	0	4,536,653	0	4,536,653
2045	223,527,752	20,371,051	20,371,051	0	0	4,217,685	0	4,217,685
2046	219,237,987	20,281,673	20,281,673	0	0	3,915,320	0	3,915,320
2047	214,671,701	20,192,271	20,192,271	0	0	3,634,555	0	3,634,555
2048	209,806,441	20,058,814	20,058,814	0	0	3,366,465	0	3,366,465
2049	204,666,224	19,902,635	19,902,635	0	0	3,114,455	0	3,114,455
2050	199,257,935	19,735,415	19,735,415	0	0	2,879,523	0	2,879,523
2051	193,580,533	19,586,984	19,586,984	0	0	2,664,676	0	2,664,676
2052	187,596,483	19,460,198	19,460,198	0	0	2,468,464	0	2,468,464
2053	181,259,695	19,246,072	19,246,072	0	0	2,276,273	0	2,276,273
2054	174,640,523	19,002,959	19,002,959	0	0	2,095,590	0	2,095,590
2055	167,752,711	18,696,449	18,696,449	0	0	1,922,414	0	1,922,414
2056	160,648,334	18,308,618	18,308,618	0	0	1,755,278	0	1,755,278
2057	153,405,173	17,884,114	17,884,114	0	0	1,598,676	0	1,598,676
2058	146,054,947	17,364,870	17,364,870	0	0	1,447,329	0	1,447,329
2059	138,693,444	16,798,102	16,798,102	0	0	1,305,445	0	1,305,445
2060	131,376,082	16,207,629	16,207,629	0	0	1,174,413	0	1,174,413
2061	124,132,959	15,565,597	15,565,597	0	0	1,051,646	0	1,051,646
2062	117,025,668	14,953,971	14,953,971	0	0	942,027	0	942,027
2063	110,032,782	14,366,159	14,366,159	0	0	843,820	0	843,820
2064	103,136,951	13,732,986	13,732,986	0	0	752,102	0	752,102
2065	96,394,281	13,078,364	13,078,364	0	0	667,833	0	667,833
2066	89,839,752	12,424,937	12,424,937	0	0	591,577	0	591,577
2067	83,486,156	11,772,201	11,772,201	0	0	522,610	0	522,610
2068	77,347,677	11,127,052	11,127,052	0	0	460,578	0	460,578
2069	71,432,166	10,489,114	10,489,114	0	0	404,822	0	404,822
2070	65,748,343	9,858,544	9,858,544	0	0	354,765	0	354,765
2071	60,305,435	9,237,347	9,237,347	0	0	309,940	0	309,940
2072	55,111,237	8,627,023	8,627,023	0	0	269,895	0	269,895

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

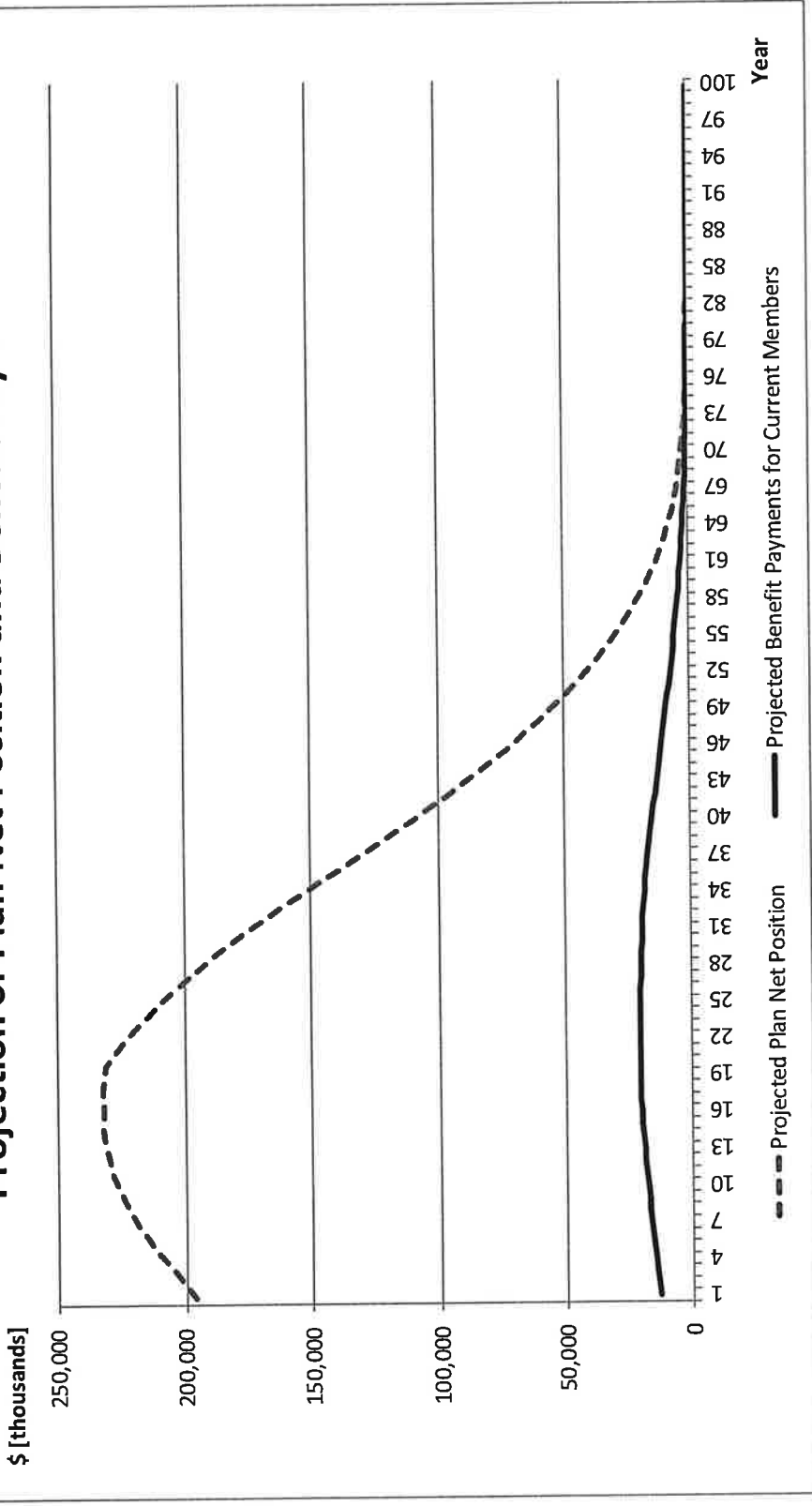
Present Values of Projected Benefits (Concluded)

Year	Projected		Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
	Beginning Plan Net Position	Projected Benefit Payments					
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{-(a)-.5}	(g)=(e)*vf ^{-(a)-.5}	(h)=(c)/(1+sdr) ^{-(a)-.5}
2073	\$ 50,172,521	\$ 8,029,151	\$ 8,029,151	\$ 0	\$ 234,210	\$ 0	\$ 234,210
2074	45,494,913	7,445,503	7,445,503	0	202,504	0	202,504
2075	41,082,614	6,877,864	6,877,864	0	174,420	0	174,420
2076	36,938,279	6,328,161	6,328,161	0	149,631	0	149,631
2077	33,062,760	5,798,234	5,798,234	0	127,833	0	127,833
2078	29,455,068	5,289,721	5,289,721	0	108,738	0	108,738
2079	26,112,442	4,804,105	4,804,105	0	92,080	0	92,080
2080	23,030,387	4,342,602	4,342,602	0	77,608	0	77,608
2081	20,202,823	3,906,231	3,906,231	0	65,090	0	65,090
2082	17,622,173	3,495,756	3,495,756	0	54,313	0	54,313
2083	15,279,520	3,111,602	3,111,602	0	45,076	0	45,076
2084	13,164,861	2,753,936	2,753,936	0	37,198	0	37,198
2085	11,267,294	2,422,660	2,422,660	0	30,511	0	30,511
2086	9,575,228	2,117,472	2,117,472	0	24,865	0	24,865
2087	8,076,545	1,837,928	1,837,928	0	20,123	0	20,123
2088	6,758,708	1,583,435	1,583,435	0	16,165	0	16,165
2089	5,608,884	1,353,364	1,353,364	0	12,882	0	12,882
2090	4,613,963	1,146,994	1,146,994	0	10,180	0	10,180
2091	3,760,630	963,414	963,414	0	7,973	0	7,973
2092	3,035,549	801,598	801,598	0	6,185	0	6,185
2093	2,425,479	660,349	660,349	0	4,751	0	4,751
2094	1,917,458	538,297	538,297	0	3,611	0	3,611
2095	1,499,005	433,976	433,976	0	2,714	0	2,714
2096	1,158,250	345,807	345,807	0	2,017	0	2,017
2097	884,100	272,173	272,173	0	1,480	0	1,480
2098	666,331	211,480	211,480	0	1,072	0	1,072
2099	495,628	162,138	162,138	0	766	0	766
2100	363,649	122,602	122,602	0	540	0	540
2101	263,045	91,404	91,404	0	376	0	376
2102	187,456	67,154	67,154	0	257	0	257
2103	131,501	48,587	48,587	0	174	0	174
2104	90,718	34,588	34,588	0	115	0	115
2105	61,475	24,200	24,200	0	75	0	75
2106	40,871	16,621	16,621	0	48	0	48
2107	26,621	11,190	11,190	0	30	0	30
2108	16,963	7,372	7,372	0	19	0	19
2109	10,558	4,746	4,746	0	11	0	11
2110	6,408	2,980	2,980	0	7	0	7
2111	3,787	1,821	1,821	0	4	0	4
2112	2,176	1,082	1,082	0	2	0	2
2113	1,213	623	623	0	1	0	1
2114	655	347	347	0	1	0	1
2115	343	187	187	0	0	0	0
2116	175	97	97	0	0	0	0
2117	87	49	49	0	0	0	0
2118	43	24	24	0	0	0	0
2119	21	12	12	0	0	0	0
2120	11	6	6	0	0	0	0
2121	6	3	3	0	0	0	0
2122	4	1	1	0	0	0	0
Totals					\$ 234,486,823	\$ -	\$ 234,486,823

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.



Projection of Plan Net Position and Benefit Payments



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.



SECTION D

GLOSSARY OF TERMS

Glossary of Terms

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



Glossary of Terms (Continued)

<i>Amortization Payment</i>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<i>Amortization Method</i>	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).
<i>Cost-of-Living Adjustments</i>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i>	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
<i>Covered Valuation Payroll</i>	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.
<i>Deferred Inflows and Outflows</i>	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
<i>Discount Rate</i>	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: <ol style="list-style-type: none">1. The benefit payments to be made while the pension plans’ fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
<i>Entry Age Actuarial Cost Method (EAN)</i>	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.



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.