

Village of Oak Lawn Regular

GASB Statement No. 68 Employer Reporting
Accounting Schedules
December 31, 2021



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March 24, 2022

Village of Oak Lawn
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 Oak Lawn only in its entirety and only with the permission of Village of Oak Lawn. 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, 2021 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 Oak Lawn. 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.

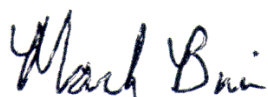
This report was prepared during the recent and still-developing COVID-19 pandemic, which is likely to influence demographic, economic, and health care experience, at least in the short term. Results in this report are developed based on available data without adjustment. We will continue to monitor these 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, 2021

Actuarial Valuation Date	December 31, 2021
Measurement Date of the Net Pension Liability	December 31, 2021
Fiscal Year End	December 31, 2022

Membership

Number of	
- Retirees and Beneficiaries	376
- Inactive, Non-Retired Members	164
- Active Members	187
- Total	727
Covered Valuation Payroll ⁽¹⁾	\$ 11,437,671

Net Pension Liability

Total Pension Liability/(Asset)	\$ 120,458,988
Plan Fiduciary Net Position	136,199,784
Net Pension Liability/(Asset)	\$ (15,740,796)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	113.07%
Net Pension Liability as a Percentage of Covered Valuation Payroll	(137.62)%

Development of the Single Discount Rate as of December 31, 2021

Long-Term Expected Rate of Investment Return	7.25%
Long-Term Municipal Bond Rate ⁽²⁾	1.84%
Last year ending December 31 in the 2022 to 2121 projection period for which projected benefit payments are fully funded	2121
Resulting Single Discount Rate based on the above development	7.25%

Single Discount Rate calculated using December 31, 2020 Measurement Date 7.25%

Total Pension Expense/(Income) \$ (2,925,687)

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	\$ 880,843	\$ 0
Changes in assumptions	0	136,067
Net difference between projected and actual earnings on pension plan investments	2,765,331	19,403,335
Total	\$ 3,646,174	\$ 19,539,402

⁽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 31, 2021. 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, 2021.

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, 2021 Annual Actuarial Valuation report dated March 11, 2022);
- 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, 2021 Annual Actuarial Valuation report dated March 11, 2022, 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, 2021 and a measurement date of December 31, 2021.

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 1.84% (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 2121 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, 2021

A. Expense/(Income)

1. Service Cost	\$	1,034,348
2. Interest on the Total Pension Liability		8,293,884
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(513,867)
5. Projected Earnings on Plan Investments (made negative for addition here)		(8,603,786)
6. Other Changes in Plan Fiduciary Net Position		1,502,385
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		998,280
8. Recognition of Outflow (Inflow) of Resources due to Assets		(5,636,931)
9. Total Pension Expense/(Income)	\$	(2,925,687)

Recognition of Deferred Outflows and Inflows of Resources

Differences between expected and actual experience and changes in assumptions are recognized in the pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with a retirement benefit through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 1,614 years. Additionally, the total plan membership (active employees and inactive employees) was 693. 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 2.3293 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, 2021

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 1,012,205
2. Assumption Changes (gains) or losses	\$ 0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	2.3293
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	\$ 434,553
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>\$ 434,553</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	\$ 577,652
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>\$ 577,652</u>

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (12,404,123)
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	\$ (2,480,825)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (9,923,298)

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, 2021

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	\$ 1,289,395	\$ 291,115	\$ 998,280
2. Due to Assets	2,765,333	8,402,264	(5,636,931)
3. Total	\$ 4,054,728	\$ 8,693,379	\$ (4,638,651)

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	\$ 1,289,395	\$ 0	\$ 1,289,395
2. Assumption changes	0	291,115	\$ (291,115)
3. Net difference between projected and actual earnings on pension plan investments	2,765,333	8,402,264	(5,636,931)
4. Total	\$ 4,054,728	\$ 8,693,379	\$ (4,638,651)

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	\$ 880,843	\$ 0	\$ 880,843
2. Assumption changes	0	136,067	\$ (136,067)
3. Net difference between projected and actual earnings on pension plan investments	2,765,331	19,403,335	(16,638,004)
4. Total	\$ 3,646,174	\$ 19,539,402	\$ (15,893,228)

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
2022	\$ (3,041,889)
2023	(6,265,797)
2024	(4,104,719)
2025	(2,480,823)
2026	0
Thereafter	0
Total	\$ (15,893,228)

Recognition of Deferred Outflows and Inflows of Resources

Reporting Date - December 31, 2021

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	\$ (2,485,480)	2.6466	\$ 0	\$ 0	0.0000
2015	(269,225)	2.6186	0	0	0.0000
2016	(868,830)	2.5903	0	0	0.0000
2017	46,410	2.6034	0	0	0.0000
2018	465,601	2.5652	0	0	0.0000
2019	951,114	2.5535	206,164	0	0.0000
2020	1,600,547	2.4674	648,678	303,191	0.4674
2021	1,012,205	2.3293	434,553	577,652	1.3293
Total			\$ 1,289,395	\$ 880,843	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	\$ 3,352,492	2.6466	\$ 0	\$ 0	0.0000
2015	118,529	2.6186	0	0	0.0000
2016	(236,178)	2.5903	0	0	0.0000
2017	(3,115,737)	2.6034	0	0	0.0000
2018	2,857,450	2.5652	0	0	0.0000
2019	0	2.5535	0	0	0.0000
2020	(718,297)	2.4674	(291,115)	(136,067)	0.4674
2021	0	2.3293	0	0	1.3293
Total			\$ (291,115)	\$ (136,067)	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2017	\$ (9,966,827)	5.0000	\$ (1,993,367)	\$ 0	0.0000
2018	13,826,663	5.0000	2,765,333	2,765,331	1.0000
2019	(11,520,884)	5.0000	(2,304,177)	(4,608,353)	2.0000
2020	(8,119,474)	5.0000	(1,623,895)	(4,871,684)	3.0000
2021	(12,404,123)	5.0000	(2,480,825)	(9,923,298)	4.0000
Total			\$ (5,636,931)	\$ (16,638,004)	

Schedule of Changes in Net Pension Liability and Related Ratios Current Period Calendar Year Ended December 31, 2021

A. Total pension liability

1. Service Cost	\$	1,034,348
2. Interest on the Total Pension Liability		8,293,884
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		1,012,205
5. Changes of assumptions		0
6. Benefit payments, including refunds of employee contributions		(7,525,352)
7. Net change in total pension liability	\$	2,815,085
8. Total pension liability – beginning		117,643,903
9. Total pension liability – ending	<u>\$</u>	<u>120,458,988</u>

B. Plan fiduciary net position

1. Contributions – employer	\$	1,551,806
2. Contributions – employee		513,867
3. Net investment income		21,007,909
4. Benefit payments, including refunds of employee contributions		(7,525,352)
5. Other (Net Transfer)		(1,502,385)
6. Net change in plan fiduciary net position	\$	14,045,845
7. Plan fiduciary net position – beginning		122,153,939
8. Plan fiduciary net position – ending	<u>\$</u>	<u>136,199,784</u>

C. Net pension liability/(asset)

\$ (15,740,796)

D. Plan fiduciary net position as a percentage of the total pension liability

113.07%

E. Covered Valuation payroll⁽¹⁾

\$ 11,437,671

F. Net pension liability as a percentage of covered valuation payroll

(137.62)%

⁽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	\$ 133,357,657	\$ 120,458,988	\$ 110,019,506
Plan Fiduciary Net Position	136,199,784	136,199,784	136,199,784
Net Pension Liability/(Asset)	\$ (2,842,127)	\$ (15,740,796)	\$ (26,180,278)

Schedules of Required Supplementary Information

Multiyear Schedule of Changes in Net Pension Liability and Related Ratios

Calendar year ending December 31,

Last 10 Calendar Years

(schedule to be built prospectively from 2014)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Total Pension Liability										
Service Cost	\$ 1,034,348	\$ 1,151,984	\$ 1,200,545	\$ 1,143,352	\$ 1,208,310	\$ 1,206,814	\$ 1,302,965	\$ 1,632,156		
Interest on the Total Pension Liability	8,293,884	8,089,220	7,846,427	7,663,715	7,666,641	7,500,069	7,293,008	6,985,903		
Benefit Changes	0	0	0	0	0	0	0	0		
Difference between Expected and Actual Experience	1,012,205	1,600,547	951,114	465,601	46,410	(868,830)	(269,225)	(2,485,480)		
Assumption Changes	0	(718,297)	0	2,857,450	(3,115,737)	(236,178)	118,529	3,352,492		
Benefit Payments and Refunds	(7,525,352)	(6,958,011)	(6,291,855)	(5,938,159)	(5,686,149)	(5,611,942)	(5,385,721)	(4,806,123)		
Net Change in Total Pension Liability	2,815,085	3,165,443	3,706,231	6,191,959	119,475	1,989,933	3,059,556	4,678,948		
Total Pension Liability - Beginning	117,643,903	114,478,460	110,772,229	104,580,270	104,460,795	102,470,862	99,411,306	94,732,358		
Total Pension Liability - Ending (a)	\$ 120,458,988	\$ 117,643,903	\$ 114,478,460	\$ 110,772,229	\$ 104,580,270	\$ 104,460,795	\$ 102,470,862	\$ 99,411,306		
Plan Fiduciary Net Position										
Employer Contributions	\$ 1,551,806	\$ 1,124,194	\$ 1,110,933	\$ 1,489,045	\$ 1,502,028	\$ 1,470,089	\$ 1,471,601	\$ 1,604,697		
Employee Contributions	513,867	504,331	556,394	528,714	520,414	500,039	513,427	559,832		
Pension Plan Net Investment Income	21,007,909	15,982,502	18,372,906	(6,024,040)	16,806,768	6,294,585	461,041	5,484,293		
Benefit Payments and Refunds	(7,525,352)	(6,958,011)	(6,291,855)	(5,938,159)	(5,686,149)	(5,611,942)	(5,385,721)	(4,806,123)		
Other	(1,502,385)	761,245	336,780	1,207,566	(1,565,458)	(63,853)	256,006	(161,413)		
Net Change in Plan Fiduciary Net Position	14,045,845	11,414,261	14,085,158	(8,736,874)	11,577,603	2,588,918	(2,683,646)	2,681,286		
Plan Fiduciary Net Position - Beginning	122,153,939	110,739,678	96,654,520	105,391,394	93,813,791	91,224,873	93,908,519	91,227,233		
Plan Fiduciary Net Position - Ending (b)	\$ 136,199,784	\$ 122,153,939	\$ 110,739,678	\$ 96,654,520	\$ 105,391,394	\$ 93,813,791	\$ 91,224,873	\$ 93,908,519		
Net Pension Liability/(Asset) - Ending (a) - (b)	(15,740,796)	(4,510,036)	3,738,782	14,117,709	(811,124)	10,647,004	11,245,989	5,502,787		
Plan Fiduciary Net Position as a Percentage of Total Pension Liability										
Covered Valuation Payroll⁽¹⁾	113.07%	103.83%	96.73%	87.26%	100.78%	89.81%	89.03%	94.46%		
Net Pension Liability as a Percentage of Covered Valuation Payroll	\$ 11,437,671	\$ 11,186,023	\$ 11,640,442	\$ 11,588,923	\$ 11,289,412	\$ 11,106,973	\$ 11,284,480	\$ 11,557,829		
	(137.62)%	(40.32)%	32.12%	121.82%	(7.18)%	95.86%	99.66%	47.61%		

⁽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	\$ 1,494,427	\$ 1,604,697	\$ (110,270)	\$ 11,557,829	13.88%
2015	1,452,313	1,471,601	(19,288)	11,284,480	13.04%
2016	1,469,453	1,470,089	(636)	11,106,973	13.24%
2017	1,456,334	1,502,028	(45,694)	11,289,412	13.30%
2018	1,490,335	1,489,045	1,290	11,588,923	12.85%
2019	1,063,936	1,110,933	(46,997)	11,640,442	9.54%
2020	1,397,134	1,124,194	272,940	11,186,023	10.05%
2021	1,429,709 *	1,551,806	(122,097)	11,437,671	13.57%

* Estimated based on contribution rate of 12.50% and covered valuation payroll of \$11,437,671.

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 2021 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 2021 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): 22-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 17 years for most employers (five employers were financed over 18 years; one employer was financed over 19 years; two employers were financed over 20 years; three employers were financed over 26 years; four employers were financed over 27 years and one employer was financed over 28 years).
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage growth	3.25%
Price Inflation	2.50%
Salary Increases	3.35% to 14.25% 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 2017 valuation pursuant to an experience study of the period 2014-2016.
Mortality	For non-disabled retirees, IMRF specific mortality rates were used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Blue Collar Healthy Annuitant Mortality Table with adjustments to match current IMRF experience. For disabled retirees, IMRF specific mortality rates were used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Disabled Retirees Mortality Table applying the same adjustments that were applied for non-disabled lives. For active members, IMRF specific mortality rates were used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Employee Mortality Table with adjustments to match current IMRF experience.

Other Information:

Notes There were no benefit changes during the year.

* Based on Valuation Assumptions used in the December 31, 2019 actuarial valuation.

Development of Market Value of Assets

Market Value of Assets as of December 31, 2021

1. Employee Contribution Reserve (MDF Assets from IMRF)	\$	14,036,173
2. Employer Contribution Reserve (EAF assets from IMRF)		42,291,103
3. Annuitant Reserve		80,045,335
4. Miscellaneous Adjustment*		(172,827)
5. Net Market Value	\$	136,199,784

* Includes an adjustment factor of (0.0012673150) 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	\$	1,427,111
b.) Accelerated payments and Reserve Payments		124,695
Total Employer Contributions (a+b)	\$	1,551,806

2. Member

a.) Wage Reporting	\$	513,759
b.) Member Payments (i.e., ERI, Pension Payments)		108
Sub-total (Amount used for valuation on Schedule of Changes Page 11)	\$	513,867

c.) Voluntary Additional Plan	\$	280,538
Total Member Contributions (a+b+c)	\$	794,405

Total Employer and Member Contributions (1+2)	\$	2,346,211
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Summary of Actuarial Methods and Assumptions Used in the Calculation of the Total Pension Liability

Methods and Assumptions Used to Determine Total Pension Liability:

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

Other Information:

Notes	There were no benefit changes during the year.
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¹ *There were no changes in the investment rate of return since the December 31, 2020 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, 2021 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 1.84%; 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	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
2021	\$ 11,437,671				
2022	11,644,576	\$ 524,006	\$ 675,201	\$ 58,829	\$ 1,258,036
2023	10,856,222	488,530	599,330	(375,074)	712,786
2024	10,210,093	459,454	556,569	(556,569)	459,454
2025	9,671,096	435,199	528,147	(528,147)	435,199
2026	9,181,106	413,150	501,388	(501,388)	413,150
2027	8,707,915	391,856	474,683	(474,683)	391,856
2028	8,277,213	372,475	449,562	(449,562)	372,474
2029	7,885,352	354,841	425,932	(425,932)	354,841
2030	7,503,046	337,637	403,048	(403,048)	337,637
2031	7,118,562	320,335	379,569	(379,569)	320,336
2032	6,725,898	302,665	355,963	(355,963)	302,665
2033	6,342,870	285,429	333,174	(333,174)	285,429
2034	5,955,620	268,003	309,879	(309,879)	268,002
2035	5,579,095	251,059	287,520	(287,520)	251,059
2036	5,216,924	234,762	265,750	(265,750)	234,761
2037	4,861,953	218,788	244,291	(244,291)	218,788
2038	4,545,529	204,549	225,235	(225,235)	204,549
2039	4,239,357	190,771	207,540	(207,540)	190,772
2040	3,939,215	177,265	190,111	(190,111)	177,265
2041	3,664,971	164,924	173,967	(173,967)	164,923
2042	3,397,414	152,884	159,244	(159,244)	152,884
2043	3,144,865	141,519	145,222	0	286,741
2044	2,908,987	130,904	132,599	0	263,503
2045	2,683,505	120,758	120,457	0	241,215
2046	2,448,644	110,189	108,214	0	218,403
2047	2,195,621	98,803	95,725	0	194,528
2048	1,970,950	88,693	85,147	0	173,840
2049	1,772,662	79,770	75,878	0	155,647
2050	1,595,766	71,809	67,356	0	139,165
2051	1,391,489	62,617	58,043	0	120,660
2052	1,180,370	53,117	48,768	0	101,885
2053	1,022,440	46,010	41,838	0	87,847
2054	820,270	36,912	33,158	0	70,070
2055	627,648	28,244	25,247	0	53,491
2056	484,659	21,810	19,447	0	41,257
2057	308,956	13,903	12,336	0	26,239
2058	177,608	7,992	7,179	0	15,172
2059	116,608	5,247	4,864	0	10,111
2060	63,623	2,863	2,692	0	5,555
2061	30,418	1,369	1,353	0	2,722
2062	17,633	793	865	0	1,658
2063	10,183	458	535	0	993
2064	6,733	303	385	0	688
2065	4,542	204	271	0	475
2066	2,785	125	170	0	295
2067	1,868	84	115	0	199
2068	1,312	59	81	0	140
2069	724	33	45	0	78
2070	149	7	9	0	16
2071	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	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
2072	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
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

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)
2022	\$ 136,199,784	\$ 1,258,036	\$ 7,439,582	\$ 9,654,324	\$ 139,672,561
2023	139,672,561	712,786	7,699,347	9,877,429	142,563,429
2024	142,563,429	459,454	7,946,275	10,069,200	145,145,808
2025	145,145,808	435,199	8,227,458	10,245,544	147,599,093
2026	147,599,093	413,150	8,474,086	10,413,838	149,951,994
2027	149,951,994	391,856	8,684,522	10,576,170	152,235,499
2028	152,235,499	372,475	8,963,710	10,731,090	154,375,354
2029	154,375,354	354,841	9,271,119	10,874,653	156,333,728
2030	156,333,728	337,637	9,505,963	11,007,658	158,173,060
2031	158,173,060	320,335	9,722,284	11,132,689	159,903,801
2032	159,903,801	302,665	9,968,042	11,248,786	161,487,210
2033	161,487,210	285,429	10,236,521	11,353,407	162,889,526
2034	162,889,526	268,003	10,445,008	11,447,029	164,159,549
2035	164,159,549	251,059	10,615,836	11,532,418	165,327,190
2036	165,327,190	234,762	10,788,230	11,610,351	166,384,073
2037	166,384,073	218,788	10,922,397	11,681,628	167,362,092
2038	167,362,092	204,549	11,038,187	11,747,903	168,276,357
2039	168,276,357	190,771	11,107,384	11,811,232	169,170,977
2040	169,170,977	177,265	11,131,673	11,874,746	170,091,314
2041	170,091,314	164,924	11,153,596	11,940,250	171,042,893
2042	171,042,893	152,884	11,140,988	12,009,260	172,064,049
2043	172,064,049	286,741	11,135,358	12,088,262	173,303,695
2044	173,303,695	263,503	11,051,131	12,180,308	174,696,375
2045	174,696,375	241,215	10,935,591	12,284,599	176,286,597
2046	176,286,597	218,403	10,823,115	12,403,083	178,084,968
2047	178,084,968	194,528	10,740,933	12,535,542	180,074,104
2048	180,074,104	173,840	10,589,675	12,684,405	182,342,674
2049	182,342,674	155,647	10,393,672	12,855,209	184,959,859
2050	184,959,859	139,165	10,164,401	13,052,533	187,987,157
2051	187,987,157	120,660	9,987,129	13,277,667	191,398,355
2052	191,398,355	101,885	9,764,568	13,532,237	195,267,908
2053	195,267,908	87,847	9,508,435	13,821,402	199,668,723
2054	199,668,723	70,070	9,362,944	14,145,010	204,520,859
2055	204,520,859	53,491	9,156,077	14,503,567	209,921,840
2056	209,921,840	41,257	8,903,014	14,903,715	215,963,798
2057	215,963,798	26,239	8,700,036	15,348,451	222,638,453
2058	222,638,453	15,172	8,424,864	15,841,770	230,070,530
2059	230,070,530	10,111	8,108,910	16,391,669	238,363,400
2060	238,363,400	5,555	7,799,080	17,003,774	247,573,649
2061	247,573,649	2,722	7,457,947	17,683,566	257,801,990
2062	257,801,990	1,658	7,101,552	18,437,776	269,139,873
2063	269,139,873	993	6,747,647	19,272,354	281,665,573
2064	281,665,573	688	6,394,720	20,193,026	295,464,566
2065	295,464,566	475	6,048,900	21,205,762	310,621,903
2066	310,621,903	295	5,709,071	22,316,766	327,229,893
2067	327,229,893	199	5,376,056	23,532,702	345,386,738
2068	345,386,738	140	5,050,523	24,860,665	365,197,020
2069	365,197,020	78	4,733,702	26,308,192	386,771,588
2070	386,771,588	16	4,425,091	27,883,338	410,229,851
2071	410,229,851	0	4,124,878	29,594,754	435,699,726

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 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)
2072	\$ 435,699,726	\$ 0	\$ 3,833,753	\$ 31,451,688	\$ 463,317,662
2073	463,317,662	0	3,552,056	33,464,021	493,229,626
2074	493,229,626	0	3,280,116	35,642,324	525,591,835
2075	525,591,835	0	3,018,304	37,997,909	560,571,439
2076	560,571,439	0	2,766,953	40,542,882	598,347,369
2077	598,347,369	0	2,526,457	43,290,203	639,111,114
2078	639,111,114	0	2,297,240	46,253,738	683,067,612
2079	683,067,612	0	2,079,611	49,448,335	730,436,336
2080	730,436,336	0	1,873,845	52,889,896	781,452,387
2081	781,452,387	0	1,680,167	56,595,458	836,367,678
2082	836,367,678	0	1,498,663	60,583,281	895,452,295
2083	895,452,295	0	1,329,379	64,872,945	958,995,861
2084	958,995,861	0	1,172,289	69,485,448	1,027,309,020
2085	1,027,309,020	0	1,027,198	74,443,320	1,100,725,142
2086	1,100,725,142	0	893,916	79,770,735	1,179,601,961
2087	1,179,601,961	0	772,218	85,493,639	1,264,323,382
2088	1,264,323,382	0	661,773	91,639,876	1,355,301,485
2089	1,355,301,485	0	562,274	98,239,332	1,452,978,542
2090	1,452,978,542	0	473,352	105,324,086	1,557,829,276
2091	1,557,829,276	0	394,518	112,928,571	1,670,363,330
2092	1,670,363,330	0	325,287	121,089,756	1,791,127,799
2093	1,791,127,799	0	265,111	129,847,323	1,920,710,011
2094	1,920,710,011	0	213,374	139,243,876	2,059,740,513
2095	2,059,740,513	0	169,446	149,325,152	2,208,896,220
2096	2,208,896,220	0	132,641	160,140,252	2,368,903,831
2097	2,368,903,831	0	102,235	171,741,887	2,540,543,482
2098	2,540,543,482	0	77,508	184,186,642	2,724,652,616
2099	2,724,652,616	0	57,735	197,535,258	2,922,130,140
2100	2,922,130,140	0	42,205	211,852,932	3,133,940,867
2101	3,133,940,867	0	30,244	227,209,636	3,361,120,258
2102	3,361,120,258	0	21,220	243,680,463	3,604,779,501
2103	3,604,779,501	0	14,561	261,345,995	3,866,110,935
2104	3,866,110,935	0	9,761	280,292,695	4,146,393,870
2105	4,146,393,870	0	6,385	300,613,328	4,447,000,813
2106	4,447,000,813	0	4,072	322,407,414	4,769,404,155
2107	4,769,404,155	0	2,529	345,781,711	5,115,183,337
2108	5,115,183,337	0	1,528	370,850,738	5,486,032,547
2109	5,486,032,547	0	898	397,737,328	5,883,768,977
2110	5,883,768,977	0	512	426,573,233	6,310,341,697
2111	6,310,341,697	0	284	457,499,763	6,767,841,176
2112	6,767,841,176	0	153	490,668,480	7,258,509,503
2113	7,258,509,503	0	80	526,241,936	7,784,751,359
2114	7,784,751,359	0	41	564,394,472	8,349,145,791
2115	8,349,145,791	0	20	605,313,069	8,954,458,840
2116	8,954,458,840	0	10	649,198,266	9,603,657,095
2117	9,603,657,095	0	5	696,265,139	10,299,922,230
2118	10,299,922,230	0	2	746,744,362	11,046,666,589
2119	11,046,666,589	0	1	800,883,328	11,847,549,916
2120	11,847,549,916	0	0	858,947,369	12,706,497,285
2121	12,706,497,285	0	0	921,221,053	13,627,718,338

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 Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/(1+sdr)^(a-.5)
2022	\$ 136,199,784	\$ 7,439,582	\$ 7,439,582	\$ 0	\$ 7,183,728	\$ 0	\$ 7,183,728
2023	139,672,561	7,699,347	7,699,347	0	6,931,990	0	6,931,990
2024	142,563,429	7,946,275	7,946,275	0	6,670,683	0	6,670,683
2025	145,145,808	8,227,458	8,227,458	0	6,439,841	0	6,439,841
2026	147,599,093	8,474,086	8,474,086	0	6,184,506	0	6,184,506
2027	149,951,994	8,684,522	8,684,522	0	5,909,636	0	5,909,636
2028	152,235,499	8,963,710	8,963,710	0	5,687,289	0	5,687,289
2029	154,375,354	9,271,119	9,271,119	0	5,484,694	0	5,484,694
2030	156,333,728	9,505,963	9,505,963	0	5,243,474	0	5,243,474
2031	158,173,060	9,722,284	9,722,284	0	5,000,276	0	5,000,276
2032	159,903,801	9,968,042	9,968,042	0	4,780,113	0	4,780,113
2033	161,487,210	10,236,521	10,236,521	0	4,577,026	0	4,577,026
2034	162,889,526	10,445,008	10,445,008	0	4,354,542	0	4,354,542
2035	164,159,549	10,615,836	10,615,836	0	4,126,584	0	4,126,584
2036	165,327,190	10,788,230	10,788,230	0	3,910,113	0	3,910,113
2037	166,384,073	10,922,397	10,922,397	0	3,691,134	0	3,691,134
2038	167,362,092	11,038,187	11,038,187	0	3,478,102	0	3,478,102
2039	168,276,357	11,107,384	11,107,384	0	3,263,315	0	3,263,315
2040	169,170,977	11,131,673	11,131,673	0	3,049,372	0	3,049,372
2041	170,091,314	11,153,596	11,153,596	0	2,848,837	0	2,848,837
2042	171,042,893	11,140,988	11,140,988	0	2,653,255	0	2,653,255
2043	172,064,049	11,135,358	11,135,358	0	2,472,647	0	2,472,647
2044	173,303,695	11,051,131	11,051,131	0	2,288,060	0	2,288,060
2045	174,696,375	10,935,591	10,935,591	0	2,111,085	0	2,111,085
2046	176,286,597	10,823,115	10,823,115	0	1,948,132	0	1,948,132
2047	178,084,968	10,740,933	10,740,933	0	1,802,648	0	1,802,648
2048	180,074,104	10,589,675	10,589,675	0	1,657,121	0	1,657,121
2049	182,342,674	10,393,672	10,393,672	0	1,516,503	0	1,516,503
2050	184,959,859	10,164,401	10,164,401	0	1,382,798	0	1,382,798
2051	187,987,157	9,987,129	9,987,129	0	1,266,836	0	1,266,836
2052	191,398,355	9,764,568	9,764,568	0	1,154,876	0	1,154,876
2053	195,267,908	9,508,435	9,508,435	0	1,048,562	0	1,048,562
2054	199,668,723	9,362,944	9,362,944	0	962,720	0	962,720
2055	204,520,859	9,156,077	9,156,077	0	877,809	0	877,809
2056	209,921,840	8,903,014	8,903,014	0	795,848	0	795,848
2057	215,963,798	8,700,036	8,700,036	0	725,132	0	725,132
2058	222,638,453	8,424,864	8,424,864	0	654,729	0	654,729
2059	230,070,530	8,108,910	8,108,910	0	587,576	0	587,576
2060	238,363,400	7,799,080	7,799,080	0	526,923	0	526,923
2061	247,573,649	7,457,947	7,457,947	0	469,814	0	469,814
2062	257,801,990	7,101,552	7,101,552	0	417,121	0	417,121
2063	269,139,873	6,747,647	6,747,647	0	369,542	0	369,542
2064	281,665,573	6,394,720	6,394,720	0	326,540	0	326,540
2065	295,464,566	6,048,900	6,048,900	0	288,001	0	288,001
2066	310,621,903	5,709,071	5,709,071	0	253,446	0	253,446
2067	327,229,893	5,376,056	5,376,056	0	222,529	0	222,529
2068	345,386,738	5,050,523	5,050,523	0	194,922	0	194,922
2069	365,197,020	4,733,702	4,733,702	0	170,345	0	170,345
2070	386,771,588	4,425,091	4,425,091	0	148,475	0	148,475
2071	410,229,851	4,124,878	4,124,878	0	129,046	0	129,046

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

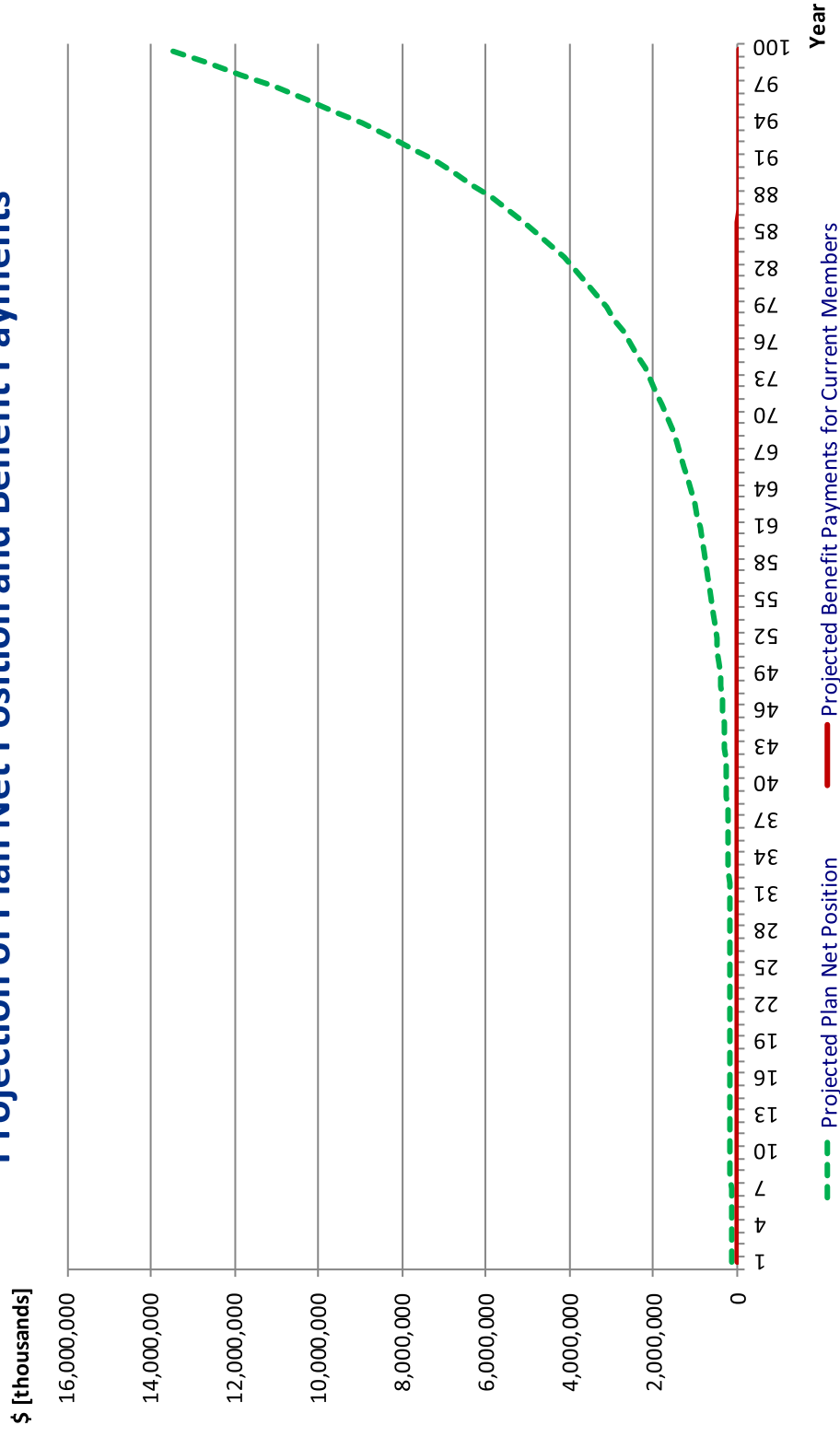
Present Values of Projected Benefits (Concluded)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
2072	\$ 435,699,726	\$ 3,833,753	\$ 3,833,753	\$ 0	\$ 111,831	\$ 0	\$ 111,831
2073	463,317,662	3,552,056	3,552,056	0	96,609	0	96,609
2074	493,229,626	3,280,116	3,280,116	0	83,182	0	83,182
2075	525,591,835	3,018,304	3,018,304	0	71,369	0	71,369
2076	560,571,439	2,766,953	2,766,953	0	61,003	0	61,003
2077	598,347,369	2,526,457	2,526,457	0	51,935	0	51,935
2078	639,111,114	2,297,240	2,297,240	0	44,031	0	44,031
2079	683,067,612	2,079,611	2,079,611	0	37,165	0	37,165
2080	730,436,336	1,873,845	1,873,845	0	31,224	0	31,224
2081	781,452,387	1,680,167	1,680,167	0	26,104	0	26,104
2082	836,367,678	1,498,663	1,498,663	0	21,710	0	21,710
2083	895,452,295	1,329,379	1,329,379	0	17,956	0	17,956
2084	958,995,861	1,172,289	1,172,289	0	14,764	0	14,764
2085	1,027,309,020	1,027,198	1,027,198	0	12,062	0	12,062
2086	1,100,725,142	893,916	893,916	0	9,787	0	9,787
2087	1,179,601,961	772,218	772,218	0	7,883	0	7,883
2088	1,264,323,382	661,773	661,773	0	6,299	0	6,299
2089	1,355,301,485	562,274	562,274	0	4,990	0	4,990
2090	1,452,978,542	473,352	473,352	0	3,917	0	3,917
2091	1,557,829,276	394,518	394,518	0	3,044	0	3,044
2092	1,670,363,330	325,287	325,287	0	2,340	0	2,340
2093	1,791,127,799	265,111	265,111	0	1,778	0	1,778
2094	1,920,710,011	213,374	213,374	0	1,335	0	1,335
2095	2,059,740,513	169,446	169,446	0	988	0	988
2096	2,208,896,220	132,641	132,641	0	721	0	721
2097	2,368,903,831	102,235	102,235	0	518	0	518
2098	2,540,543,482	77,508	77,508	0	366	0	366
2099	2,724,652,616	57,735	57,735	0	254	0	254
2100	2,922,130,140	42,205	42,205	0	173	0	173
2101	3,133,940,867	30,244	30,244	0	116	0	116
2102	3,361,120,258	21,220	21,220	0	76	0	76
2103	3,604,779,501	14,561	14,561	0	49	0	49
2104	3,866,110,935	9,761	9,761	0	30	0	30
2105	4,146,393,870	6,385	6,385	0	18	0	18
2106	4,447,000,813	4,072	4,072	0	11	0	11
2107	4,769,404,155	2,529	2,529	0	6	0	6
2108	5,115,183,337	1,528	1,528	0	4	0	4
2109	5,486,032,547	898	898	0	2	0	2
2110	5,883,768,977	512	512	0	1	0	1
2111	6,310,341,697	284	284	0	1	0	1
2112	6,767,841,176	153	153	0	0	0	0
2113	7,258,509,503	80	80	0	0	0	0
2114	7,784,751,359	41	41	0	0	0	0
2115	8,349,145,791	20	20	0	0	0	0
2116	8,954,458,840	10	10	0	0	0	0
2117	9,603,657,095	5	5	0	0	0	0
2118	10,299,922,230	2	2	0	0	0	0
2119	11,046,666,589	1	1	0	0	0	0
2120	11,847,549,916	0	0	0	0	0	0
2121	12,706,497,285	0	0	0	0	0	0
Totals					\$ 128,963,955	\$ -	\$ 128,963,955

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)

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.