

Arbor Park SD 145 Regular

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



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March 24, 2022

Arbor Park SD 145
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 Arbor Park SD 145 only in its entirety and only with the permission of Arbor Park SD 145. 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 Arbor Park SD 145. 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.

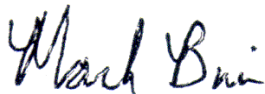
This report was prepared during the recent and still-developing COVID-19 pandemic, which is likely to influence demographic, economic, and health care experience, at least in the short term. Results in this report are developed based on available data without adjustment. We will continue to monitor these 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	June 30, 2022

Membership

Number of	
- Retirees and Beneficiaries	254
- Inactive, Non-Retired Members	263
- Active Members	83
- Total	600
Covered Valuation Payroll ⁽¹⁾	\$ 2,661,271

Net Pension Liability

Total Pension Liability/(Asset)	\$ 13,498,696
Plan Fiduciary Net Position	14,488,953
Net Pension Liability/(Asset)	\$ (990,257)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	107.34%
Net Pension Liability as a Percentage of Covered Valuation Payroll	(37.21)%

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) \$ (617,951)

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	\$ 0	\$ 46,924
Changes in assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	311,282	2,116,886
Total	\$ 311,282	\$ 2,163,810

⁽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	\$	257,633
2. Interest on the Total Pension Liability		948,883
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(119,808)
5. Projected Earnings on Plan Investments (made negative for addition here)		(908,881)
6. Other Changes in Plan Fiduciary Net Position		78,470
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		(235,139)
8. Recognition of Outflow (Inflow) of Resources due to Assets		(639,109)
9. Total Pension Expense/(Income)	\$	(617,951)

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 741 years. Additionally, the total plan membership (active employees and inactive employees) was 594. 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 1.2468 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	\$	(237,052)
2. Assumption Changes (gains) or losses	\$	0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		1.2468
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	\$	(190,128)
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	\$	(190,128)
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	\$	(46,924)
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	\$	(46,924)

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$	(1,294,493)
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	\$	(258,899)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$	(1,035,594)

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	\$ 0	\$ 235,139	\$ (235,139)
2. Due to Assets	311,280	950,389	(639,109)
3. Total	\$ 311,280	\$ 1,185,528	\$ (874,248)

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	\$ 0	\$ 221,940	\$ (221,940)
2. Assumption changes	0	13,199	\$ (13,199)
3. Net difference between projected and actual earnings on pension plan investments	311,280	950,389	(639,109)
4. Total	\$ 311,280	\$ 1,185,528	\$ (874,248)

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	\$ 0	\$ 46,924	\$ (46,924)
2. Assumption changes	0	0	0
3. Net difference between projected and actual earnings on pension plan investments	311,282	2,116,886	(1,805,604)
4. Total	\$ 311,282	\$ 2,163,810	\$ (1,852,528)

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	\$ (440,975)
2023	(705,333)
2024	(447,323)
2025	(258,897)
2026	0
Thereafter	0
Total	\$ (1,852,528)

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	\$ (192,102)	1.2402	\$ 0	\$ 0	0.0000
2015	33,893	1.2621	0	0	0.0000
2016	425,635	1.2840	0	0	0.0000
2017	(354,752)	1.1703	0	0	0.0000
2018	133,408	1.2578	0	0	0.0000
2019	377,556	1.1962	0	0	0.0000
2020	(228,062)	1.1621	(31,812)	0	0.0000
2021	(237,052)	1.2468	(190,128)	(46,924)	0.2468
Total			\$ (221,940)	\$ (46,924)	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	\$ 495,070	1.2402	\$ 0	\$ 0	0.0000
2015	11,816	1.2621	0	0	0.0000
2016	(24,340)	1.2840	0	0	0.0000
2017	(389,040)	1.1703	0	0	0.0000
2018	290,097	1.2578	0	0	0.0000
2019	0	1.1962	0	0	0.0000
2020	(94,624)	1.1621	(13,199)	0	0.0000
2021	0	1.2468	0	0	0.2468
Total			\$ (13,199)	\$ 0	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2017	\$ (1,225,276)	5.0000	\$ (245,056)	\$ 0	0.0000
2018	1,556,402	5.0000	311,280	311,282	1.0000
2019	(1,290,050)	5.0000	(258,010)	(516,020)	2.0000
2020	(942,120)	5.0000	(188,424)	(565,272)	3.0000
2021	(1,294,493)	5.0000	(258,899)	(1,035,594)	4.0000
Total			\$ (639,109)	\$ (1,805,604)	

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	\$	257,633
2. Interest on the Total Pension Liability		948,883
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		(237,052)
5. Changes of assumptions		0
6. Benefit payments, including refunds of employee contributions		(859,987)
7. Net change in total pension liability	\$	109,477
8. Total pension liability – beginning		13,389,219
9. Total pension liability – ending	\$	13,498,696
B. Plan fiduciary net position		
1. Contributions – employer	\$	317,223
2. Contributions – employee		119,808
3. Net investment income		2,203,374
4. Benefit payments, including refunds of employee contributions		(859,987)
5. Other (Net Transfer)		(78,470)
6. Net change in plan fiduciary net position	\$	1,701,948
7. Plan fiduciary net position – beginning		12,787,005
8. Plan fiduciary net position – ending	\$	14,488,953
C. Net pension liability/(asset)	\$	(990,257)
D. Plan fiduciary net position as a percentage of the total pension liability		107.34%
E. Covered Valuation payroll⁽¹⁾	\$	2,661,271
F. Net pension liability as a percentage of covered valuation payroll		(37.21)%

⁽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	\$ 14,825,018	\$ 13,498,696	\$ 12,393,582
Plan Fiduciary Net Position	14,488,953	14,488,953	14,488,953
Net Pension Liability/(Asset)	\$ 336,065	\$ (990,257)	\$ (2,095,371)

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,	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Total Pension Liability										
Service Cost	\$ 257,633	\$ 245,841	\$ 238,994	\$ 218,681	\$ 217,754	\$ 242,420	\$ 217,911	\$ 240,979		
Interest on the Total Pension Liability	948,883	947,525	897,692	874,444	904,517	846,188	816,194	764,359		
Benefit Changes	0	0	0	0	0	0	0	0		
Difference between Expected and Actual Experience	(237,052)	(228,062)	377,556	133,408	(354,752)	425,635	33,893	(192,102)		
Assumption Changes	0	(94,624)	0	290,097	(389,040)	(24,340)	11,816	495,070		
Benefit Payments and Refunds	(859,987)	(855,688)	(804,945)	(803,238)	(756,569)	(703,481)	(649,543)	(559,875)		
Net Change in Total Pension Liability	109,477	14,992	709,297	713,392	(378,090)	786,422	430,271	748,431		
Total Pension Liability - Beginning	13,389,219	13,374,227	12,664,930	11,951,538	12,329,628	11,543,206	11,112,935	10,364,504		
Total Pension Liability - Ending (a)	\$ 13,498,696	\$ 13,389,219	\$ 13,374,227	\$ 12,664,930	\$ 11,951,538	\$ 12,329,628	\$ 11,543,206	\$ 11,112,935		
Plan Fiduciary Net Position										
Employer Contributions	\$ 317,223	\$ 292,886	\$ 230,899	\$ 272,104	\$ 216,301	\$ 253,337	\$ 270,455	\$ 255,429		
Employee Contributions	119,808	116,798	108,121	100,401	91,154	92,944	96,371	88,024		
Pension Plan Net Investment Income	2,203,374	1,783,880	2,040,880	(703,549)	1,982,102	667,131	50,337	582,648		
Benefit Payments and Refunds	(859,987)	(855,688)	(804,945)	(803,238)	(756,569)	(703,481)	(649,543)	(559,875)		
Other	(78,470)	(768,713)	107,297	166,264	(689,907)	210,870	163,369	182,698		
Net Change in Plan Fiduciary Net Position	1,701,948	569,163	1,682,252	(968,018)	843,081	520,801	(69,011)	548,924		
Plan Fiduciary Net Position - Beginning	12,787,005	12,217,842	10,535,590	11,503,608	10,660,527	10,139,726	10,208,737	9,659,813		
Plan Fiduciary Net Position - Ending (b)	\$ 14,488,953	\$ 12,787,005	\$ 12,217,842	\$ 10,535,590	\$ 11,503,608	\$ 10,660,527	\$ 10,139,726	\$ 10,208,737		
Net Pension Liability/(Asset) - Ending (a) - (b)	(990,257)	602,214	1,156,385	2,129,340	447,930	1,669,101	1,403,480	904,198		
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	107.34%	95.50 %	91.35 %	83.19 %	96.25 %	86.46%	87.84 %	91.86 %		
Covered Valuation Payroll⁽¹⁾	\$ 2,661,271	\$ 2,507,586	\$ 2,402,690	\$ 2,228,531	\$ 2,028,804	\$ 2,067,791	\$ 2,137,254	\$ 1,911,173		
Net Pension Liability as a Percentage										
of Covered Valuation Payroll	(37.21)%	24.02 %	48.13 %	95.55 %	22.08 %	80.72%	65.67 %	47.31 %		

⁽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	\$ 254,377	\$ 255,429	\$ (1,052)	\$ 1,911,173	13.37%
2015	270,790	270,455	335	2,137,254	12.65%
2016	247,101	253,337	(6,236)	2,067,791	12.25%
2017	216,676	216,301	375	2,028,804	10.66%
2018	272,104	272,104	0	2,228,531	12.21%
2019	230,899	230,899	0	2,402,690	9.61%
2020	292,886	292,886	0	2,507,586	11.68%
2021	317,224 *	317,223	1	2,661,271	11.92%

* Estimated based on contribution rate of 11.92% and covered valuation payroll of \$2,661,271.

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)	\$	1,900,791
2. Employer Contribution Reserve (EAF assets from IMRF)		4,638,100
3. Annuitant Reserve		7,968,447
4. Miscellaneous Adjustment*		(18,385)
5. Net Market Value	\$	14,488,953

* 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	\$	317,223
b.) Accelerated payments and Reserve Payments		-
Total Employer Contributions (a+b)	\$	317,223

2. Member

a.) Wage Reporting	\$	119,757
b.) Member Payments (i.e., ERI, Pension Payments)		51
Sub-total (Amount used for valuation on Schedule of Changes Page 11)	\$	119,808

c.) Voluntary Additional Plan	\$	37,224
Total Member Contributions (a+b+c)	\$	157,032

Total Employer and Member Contributions (1+2)	\$	474,255
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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 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	\$ 2,661,271				
2022	2,453,843	\$ 110,423	\$ 129,601	\$ 63,726	\$ 303,749
2023	2,212,713	99,572	117,525	19,004	236,101
2024	2,021,532	90,969	104,158	(31,806)	163,321
2025	1,845,843	83,063	94,373	(76,529)	100,907
2026	1,680,000	75,600	85,227	(85,227)	75,600
2027	1,542,952	69,433	77,508	(77,508)	69,433
2028	1,432,400	64,458	71,243	(71,243)	64,458
2029	1,329,350	59,821	65,590	(65,590)	59,821
2030	1,223,515	55,058	59,882	(59,882)	55,058
2031	1,125,244	50,636	54,625	(54,625)	50,636
2032	1,040,570	46,826	50,101	(50,101)	46,826
2033	960,258	43,212	45,853	(45,853)	43,212
2034	877,363	39,481	41,546	(41,546)	39,482
2035	797,904	35,906	37,387	(37,387)	35,906
2036	725,230	32,635	33,694	(33,694)	32,635
2037	661,902	29,786	30,489	(30,489)	29,786
2038	609,478	27,427	27,832	(27,832)	27,427
2039	562,205	25,299	25,394	(25,394)	25,299
2040	504,666	22,710	22,695	(22,695)	22,710
2041	444,665	20,010	19,643	(19,643)	20,010
2042	401,065	18,048	17,200	(17,200)	18,048
2043	362,329	16,305	15,215	0	31,519
2044	325,704	14,657	13,483	0	28,139
2045	296,443	13,340	12,095	0	25,435
2046	274,082	12,334	11,046	0	23,380
2047	250,220	11,260	10,010	0	21,270
2048	222,045	9,992	8,795	0	18,787
2049	198,940	8,952	7,820	0	16,773
2050	184,385	8,297	7,193	0	15,491
2051	172,864	7,779	6,675	0	14,454
2052	162,990	7,335	6,229	0	13,564
2053	152,835	6,878	5,765	0	12,643
2054	144,684	6,511	5,415	0	11,925
2055	141,472	6,366	5,280	0	11,647
2056	138,206	6,219	5,131	0	11,350
2057	116,337	5,235	4,308	0	9,543
2058	86,993	3,915	3,221	0	7,136
2059	75,837	3,413	2,808	0	6,221
2060	70,222	3,160	2,593	0	5,753
2061	65,554	2,950	2,421	0	5,371
2062	63,773	2,870	2,355	0	5,225
2063	43,418	1,954	1,599	0	3,553
2064	14,535	654	537	0	1,191
2065	3,708	167	137	0	304
2066	888	40	33	0	73
2067	222	10	8	0	18
2068	55	2	2	0	4
2069	14	1	1	0	1
2070	3	0	0	0	0
2071	1	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		Projected Total		Projected Benefit		Projected Investment		Projected Ending Plan	
	Plan	Net Position	Contributions	Payments	Earnings at 7.25%	Net Position				
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)					
2022	\$	14,488,953	\$	303,749	\$	884,036	\$	1,029,782	\$	14,938,448
2023		14,938,448		236,100		908,233		1,059,099		15,325,415
2024		15,325,415		163,321		939,879		1,083,435		15,632,292
2025		15,632,292		100,907		978,574		1,102,082		15,856,707
2026		15,856,707		75,600		1,023,425		1,115,854		16,024,736
2027		16,024,736		69,433		1,059,103		1,126,545		16,161,611
2028		16,161,611		64,458		1,095,551		1,134,994		16,265,511
2029		16,265,511		59,821		1,129,028		1,141,169		16,337,473
2030		16,337,473		55,058		1,165,928		1,144,902		16,371,506
2031		16,371,506		50,636		1,196,473		1,146,124		16,371,793
2032		16,371,793		46,826		1,216,052		1,145,312		16,347,879
2033		16,347,879		43,212		1,238,631		1,142,645		16,295,105
2034		16,295,105		39,481		1,261,393		1,137,876		16,211,069
2035		16,211,069		35,906		1,278,408		1,131,050		16,099,617
2036		16,099,617		32,635		1,286,908		1,122,550		15,967,894
2037		15,967,894		29,786		1,291,487		1,112,736		15,818,929
2038		15,818,929		27,427		1,302,009		1,101,477		15,645,823
2039		15,645,823		25,299		1,296,454		1,089,049		15,463,718
2040		15,463,718		22,710		1,301,922		1,075,559		15,260,065
2041		15,260,065		20,010		1,302,221		1,060,688		15,038,542
2042		15,038,542		18,048		1,289,748		1,045,002		14,811,843
2043		14,811,843		31,519		1,277,580		1,029,479		14,595,262
2044		14,595,262		28,139		1,261,587		1,014,226		14,376,041
2045		14,376,041		25,435		1,235,092		999,180		14,165,564
2046		14,165,564		23,380		1,204,035		984,953		13,969,862
2047		13,969,862		21,270		1,173,546		971,776		13,789,362
2048		13,789,362		18,787		1,142,603		959,703		13,625,249
2049		13,625,249		16,773		1,104,827		949,079		13,486,274
2050		13,486,274		15,491		1,062,415		940,468		13,379,817
2051		13,379,817		14,454		1,018,415		934,280		13,310,136
2052		13,310,136		13,564		972,970		930,815		13,281,545
2053		13,281,545		12,643		932,852		930,138		13,291,473
2054		13,291,473		11,925		890,931		932,325		13,344,794
2055		13,344,794		11,647		847,443		937,730		13,446,727
2056		13,446,727		11,350		805,072		946,619		13,599,625
2057		13,599,625		9,543		791,806		958,112		13,775,473
2058		13,775,473		7,136		776,406		971,324		13,977,526
2059		13,977,526		6,221		740,376		987,223		14,230,593
2060		14,230,593		5,753		703,494		1,006,867		14,539,720
2061		14,539,720		5,371		665,935		1,030,603		14,909,758
2062		14,909,758		5,225		626,455		1,058,832		15,347,360
2063		15,347,360		3,553		634,632		1,090,207		15,806,488
2064		15,806,488		1,191		636,892		1,123,329		16,294,116
2065		16,294,116		304		609,681		1,159,620		16,844,360
2066		16,844,360		73		577,317		1,200,657		17,467,773
2067		17,467,773		18		545,551		1,246,984		18,169,223
2068		18,169,223		4		515,911		1,298,894		18,952,211
2069		18,952,211		1		488,404		1,356,640		19,820,449
2070		19,820,449		0		462,298		1,420,517		20,778,668
2071		20,778,668		0		437,689		1,490,865		21,831,844

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	\$ 21,831,844	\$ 0	\$ 414,554	\$ 1,568,044	\$ 22,985,334
2073	22,985,334	0	392,814	1,652,446	24,244,966
2074	24,244,966	0	372,375	1,744,498	25,617,089
2075	25,617,089	0	353,126	1,844,662	27,108,625
2076	27,108,625	0	334,941	1,953,446	28,727,131
2077	28,727,131	0	317,702	2,071,402	30,480,831
2078	30,480,831	0	301,289	2,199,130	32,378,672
2079	32,378,672	0	285,595	2,337,282	34,430,359
2080	34,430,359	0	270,528	2,486,566	36,646,396
2081	36,646,396	0	256,007	2,647,746	39,038,135
2082	39,038,135	0	241,962	2,821,647	41,617,821
2083	41,617,821	0	228,318	3,009,160	44,398,664
2084	44,398,664	0	214,995	3,211,246	47,394,915
2085	47,394,915	0	201,925	3,428,940	50,621,930
2086	50,621,930	0	189,047	3,663,357	54,096,239
2087	54,096,239	0	176,320	3,915,698	57,835,617
2088	57,835,617	0	163,709	4,187,252	61,859,160
2089	61,859,160	0	151,204	4,479,404	66,187,360
2090	66,187,360	0	138,825	4,793,639	70,842,174
2091	70,842,174	0	126,599	5,131,549	75,847,123
2092	75,847,123	0	114,574	5,494,836	81,227,385
2093	81,227,385	0	102,822	5,885,323	87,009,887
2094	87,009,887	0	91,407	6,304,961	93,223,441
2095	93,223,441	0	80,411	6,755,836	99,898,866
2096	99,898,866	0	69,931	7,240,177	107,069,112
2097	107,069,112	0	60,057	7,760,372	114,769,427
2098	114,769,427	0	50,885	8,318,971	123,037,513
2099	123,037,513	0	42,500	8,918,706	131,913,718
2100	131,913,718	0	34,954	9,562,500	141,441,264
2101	141,441,264	0	28,283	10,253,484	151,666,466
2102	151,666,466	0	22,497	10,995,018	162,638,986
2103	162,638,986	0	17,569	11,790,701	174,412,118
2104	174,412,118	0	13,452	12,644,399	187,043,065
2105	187,043,065	0	10,083	13,560,263	200,593,246
2106	200,593,246	0	7,387	14,542,747	215,128,606
2107	215,128,606	0	5,282	15,596,636	230,719,960
2108	230,719,960	0	3,680	16,727,066	247,443,345
2109	247,443,345	0	2,495	17,939,554	265,380,404
2110	265,380,404	0	1,643	19,240,021	284,618,782
2111	284,618,782	0	1,049	20,634,824	305,252,557
2112	305,252,557	0	649	22,130,787	327,382,695
2113	327,382,695	0	389	23,735,232	351,117,538
2114	351,117,538	0	225	25,456,013	376,573,327
2115	376,573,327	0	125	27,301,562	403,874,763
2116	403,874,763	0	67	29,280,918	433,155,614
2117	433,155,614	0	35	31,403,781	464,559,360
2118	464,559,360	0	18	33,680,553	498,239,895
2119	498,239,895	0	9	36,122,392	534,362,279
2120	534,362,279	0	4	38,741,265	573,103,540
2121	573,103,540	0	2	41,550,007	614,653,544

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 Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of	Present Value of	Present Value of
	Beginning Plan Net Position	Projected Benefit Payments			Funded Benefit Payments using Expected Return Rate (v)	Unfunded Benefit Payments using Municipal Bond Rate (vf)	Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
2022	\$ 14,488,953	\$ 884,036	\$ 884,036	\$ 0	\$ 853,633	\$ 0	\$ 853,633
2023	14,938,448	908,233	908,233	0	817,714	0	817,714
2024	15,325,415	939,879	939,879	0	789,003	0	789,003
2025	15,632,292	978,574	978,574	0	765,955	0	765,955
2026	15,856,707	1,023,425	1,023,425	0	746,910	0	746,910
2027	16,024,736	1,059,103	1,059,103	0	720,698	0	720,698
2028	16,161,611	1,095,551	1,095,551	0	695,105	0	695,105
2029	16,265,511	1,129,028	1,129,028	0	667,920	0	667,920
2030	16,337,473	1,165,928	1,165,928	0	643,124	0	643,124
2031	16,371,506	1,196,473	1,196,473	0	615,359	0	615,359
2032	16,371,793	1,216,052	1,216,052	0	583,150	0	583,150
2033	16,347,879	1,238,631	1,238,631	0	553,826	0	553,826
2034	16,295,105	1,261,393	1,261,393	0	525,877	0	525,877
2035	16,211,069	1,278,408	1,278,408	0	496,942	0	496,942
2036	16,099,617	1,286,908	1,286,908	0	466,430	0	466,430
2037	15,967,894	1,291,487	1,291,487	0	436,447	0	436,447
2038	15,818,929	1,302,009	1,302,009	0	410,259	0	410,259
2039	15,645,823	1,296,454	1,296,454	0	380,894	0	380,894
2040	15,463,718	1,301,922	1,301,922	0	356,644	0	356,644
2041	15,260,065	1,302,221	1,302,221	0	332,612	0	332,612
2042	15,038,542	1,289,748	1,289,748	0	307,157	0	307,157
2043	14,811,843	1,277,580	1,277,580	0	283,691	0	283,691
2044	14,595,262	1,261,587	1,261,587	0	261,203	0	261,203
2045	14,376,041	1,235,092	1,235,092	0	238,431	0	238,431
2046	14,165,564	1,204,035	1,204,035	0	216,723	0	216,723
2047	13,969,862	1,173,546	1,173,546	0	196,956	0	196,956
2048	13,789,362	1,142,603	1,142,603	0	178,800	0	178,800
2049	13,625,249	1,104,827	1,104,827	0	161,201	0	161,201
2050	13,486,274	1,062,415	1,062,415	0	144,534	0	144,534
2051	13,379,817	1,018,415	1,018,415	0	129,183	0	129,183
2052	13,310,136	972,970	972,970	0	115,075	0	115,075
2053	13,281,545	932,852	932,852	0	102,872	0	102,872
2054	13,291,473	890,931	890,931	0	91,608	0	91,608
2055	13,344,794	847,443	847,443	0	81,246	0	81,246
2056	13,446,727	805,072	805,072	0	71,966	0	71,966
2057	13,599,625	791,806	791,806	0	65,996	0	65,996
2058	13,775,473	776,406	776,406	0	60,338	0	60,338
2059	13,977,526	740,376	740,376	0	53,648	0	53,648
2060	14,230,593	703,494	703,494	0	47,530	0	47,530
2061	14,539,720	665,935	665,935	0	41,951	0	41,951
2062	14,909,758	626,455	626,455	0	36,796	0	36,796
2063	15,347,360	634,632	634,632	0	34,756	0	34,756
2064	15,806,488	636,892	636,892	0	32,522	0	32,522
2065	16,294,116	609,681	609,681	0	29,028	0	29,028
2066	16,844,360	577,317	577,317	0	25,629	0	25,629
2067	17,467,773	545,551	545,551	0	22,582	0	22,582
2068	18,169,223	515,911	515,911	0	19,911	0	19,911
2069	18,952,211	488,404	488,404	0	17,575	0	17,575
2070	19,820,449	462,298	462,298	0	15,511	0	15,511
2071	20,778,668	437,689	437,689	0	13,693	0	13,693

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.



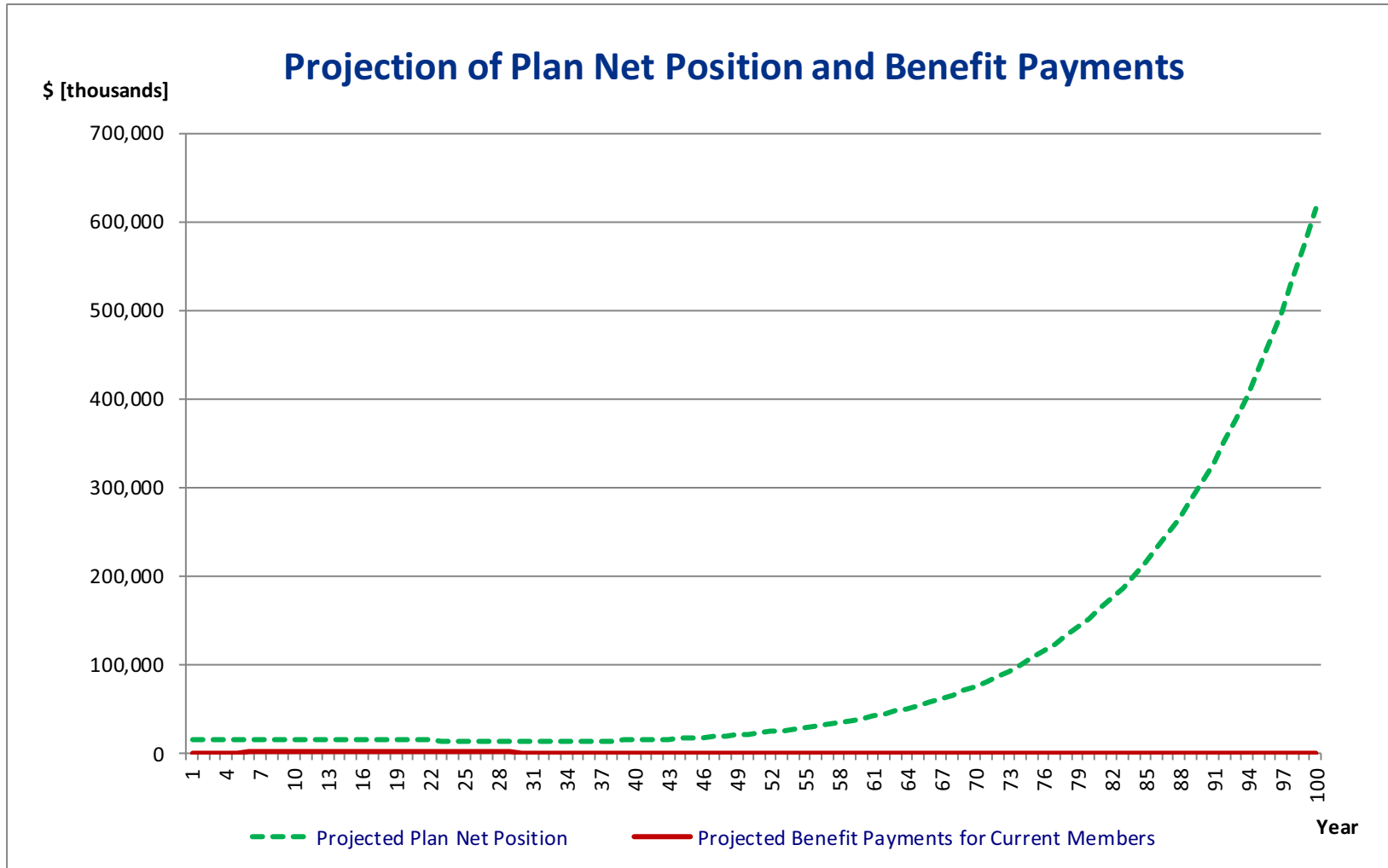
Single Discount Rate Development

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 ⁿ ((a)-.5)	(g)=(e)*vf ⁿ ((a)-.5)	(h)=(c)/(1+sdr) ⁿ ((a)-.5)
2072	\$ 21,831,844	\$ 414,554	\$ 414,554	\$ 0	\$ 12,093	\$ 0	\$ 12,093
2073	22,985,334	392,814	392,814	0	10,684	0	10,684
2074	24,244,966	372,375	372,375	0	9,443	0	9,443
2075	25,617,089	353,126	353,126	0	8,350	0	8,350
2076	27,108,625	334,941	334,941	0	7,384	0	7,384
2077	28,727,131	317,702	317,702	0	6,531	0	6,531
2078	30,480,831	301,289	301,289	0	5,775	0	5,775
2079	32,378,672	285,595	285,595	0	5,104	0	5,104
2080	34,430,359	270,528	270,528	0	4,508	0	4,508
2081	36,646,396	256,007	256,007	0	3,978	0	3,978
2082	39,038,135	241,962	241,962	0	3,505	0	3,505
2083	41,617,821	228,318	228,318	0	3,084	0	3,084
2084	44,398,664	214,995	214,995	0	2,708	0	2,708
2085	47,394,915	201,925	201,925	0	2,371	0	2,371
2086	50,621,930	189,047	189,047	0	2,070	0	2,070
2087	54,096,239	176,320	176,320	0	1,800	0	1,800
2088	57,835,617	163,709	163,709	0	1,558	0	1,558
2089	61,859,160	151,204	151,204	0	1,342	0	1,342
2090	66,187,360	138,825	138,825	0	1,149	0	1,149
2091	70,842,174	126,599	126,599	0	977	0	977
2092	75,847,123	114,574	114,574	0	824	0	824
2093	81,227,385	102,822	102,822	0	690	0	690
2094	87,009,887	91,407	91,407	0	572	0	572
2095	93,223,441	80,411	80,411	0	469	0	469
2096	99,898,866	69,931	69,931	0	380	0	380
2097	107,069,112	60,057	60,057	0	304	0	304
2098	114,769,427	50,885	50,885	0	241	0	241
2099	123,037,513	42,500	42,500	0	187	0	187
2100	131,913,718	34,954	34,954	0	144	0	144
2101	141,441,264	28,283	28,283	0	108	0	108
2102	151,666,466	22,497	22,497	0	80	0	80
2103	162,638,986	17,569	17,569	0	59	0	59
2104	174,412,118	13,452	13,452	0	42	0	42
2105	187,043,065	10,083	10,083	0	29	0	29
2106	200,593,246	7,387	7,387	0	20	0	20
2107	215,128,606	5,282	5,282	0	13	0	13
2108	230,719,960	3,680	3,680	0	9	0	9
2109	247,443,345	2,495	2,495	0	5	0	5
2110	265,380,404	1,643	1,643	0	3	0	3
2111	284,618,782	1,049	1,049	0	2	0	2
2112	305,252,557	649	649	0	1	0	1
2113	327,382,695	389	389	0	1	0	1
2114	351,117,538	225	225	0	0	0	0
2115	376,573,327	125	125	0	0	0	0
2116	403,874,763	67	67	0	0	0	0
2117	433,155,614	35	35	0	0	0	0
2118	464,559,360	18	18	0	0	0	0
2119	498,239,895	9	9	0	0	0	0
2120	534,362,279	4	4	0	0	0	0
2121	573,103,540	2	2	0	0	0	0
Totals					\$ 15,055,211	\$ -	\$ 15,055,211

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.





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SECTION D

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL)

The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."

Actuarial Assumptions

These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.

Accrued Service

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

Actuarial Equivalent

A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Cost Method

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.

Actuarial Gain (Loss)

The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.

Actuarial Present Value (APV)

The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.

Actuarial Valuation

The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.

Actuarial Valuation Date

The date as of which an actuarial valuation is performed.

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)

A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

Glossary of Terms (Continued)

Amortization Payment

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

Amortization Method

The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).

Cost-of-Living Adjustments

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

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

A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

Covered Valuation Payroll

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

Deferred Inflows and Outflows

The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.

Discount Rate

For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:

1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and
2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

Entry Age Actuarial Cost Method (EAN)

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

Glossary of Terms (Continued)

<i>GASB</i>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<i>Fiduciary Net Position</i>	The fiduciary net position is the value of the assets of the trust.
<i>Long-Term Expected Rate of Return</i>	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
<i>Money-Weighted Rate of Return</i>	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 68, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
<i>Multiple-Employer Defined Benefit Pension Plan</i>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<i>Municipal Bond Rate</i>	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
<i>Net Pension Liability (NPL)</i>	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
<i>Non-Employer Contribution Entities</i>	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.
<i>Normal Cost</i>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
<i>Other Postemployment Benefits (OPEB)</i>	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
<i>Real Rate of Return</i>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<i>Service Cost</i>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Glossary of Terms (Concluded)

Total Pension Expense

The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost;
2. Interest on the Total Pension Liability;
3. Current-Period Benefit Changes;
4. Employee Contributions (made negative for addition here);
5. Projected Earnings on Plan Investments (made negative for addition here);
6. Pension Plan Administrative Expense;
7. Other Changes in Plan Fiduciary Net Position;
8. Recognition of Outflow (Inflow) of Resources due to Liabilities; and
9. Recognition of Outflow (Inflow) of Resources due to Assets.

Total Pension Liability (TPL)

The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL)

The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets

The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 68, the valuation asset is equal to the market value of assets.