

# Alsip Park Dist Regular

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



# Table of Contents

Page

## Certification Letter

### Section A Executive Summary

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

### Section B Financial Statements

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

### Section C Calculation of the Single Discount Rate

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

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



March 24, 2022

Alsip Park Dist  
Illinois Municipal Retirement Fund

Ladies and Gentlemen:

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

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

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

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

This report complements the actuarial valuation report that was provided to the IMRF and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 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 Alsip Park Dist. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact IMRF.

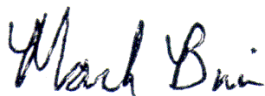
This report was prepared during the recent and still-developing COVID-19 pandemic, which is likely to influence demographic, economic, and health care experience, at least in the short term. Results in this report are developed based on available data without adjustment. We will continue to monitor these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

## Membership

Number of	
- Retirees and Beneficiaries	27
- Inactive, Non-Retired Members	37
- Active Members	27
- Total	91
Covered Valuation Payroll <sup>(1)</sup>	\$ 1,099,409

## Net Pension Liability

Total Pension Liability/(Asset)	\$ 7,484,752
Plan Fiduciary Net Position	8,055,405
Net Pension Liability/(Asset)	\$ (570,653)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	107.62%
Net Pension Liability as a Percentage of Covered Valuation Payroll	(51.91)%

## 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 <sup>(2)</sup>	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%
<b>Total Pension Expense/(Income)</b>	<b>\$ (237,353)</b>

## 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	\$ 76,666	\$ 26,176	
Changes in assumptions	0	33,836	
Net difference between projected and actual earnings on pension plan investments	<del>141,776</del>	<del>1,026,025</del>	884249
Total	\$ 218,442	\$ 1,086,037	+ subsequent 41469 = 118135 WP 23 944261 WP 23

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

<sup>(2)</sup> 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	\$	105,449
2. Interest on the Total Pension Liability		506,820
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(52,877)
5. Projected Earnings on Plan Investments (made negative for addition here)		(504,124)
6. Other Changes in Plan Fiduciary Net Position		(27,061)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		20,984
8. Recognition of Outflow (Inflow) of Resources due to Assets		(286,544)
<b>9. Total Pension Expense/(Income)</b>	<b>\$</b>	<b>(237,353)</b>

### 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 286 years. Additionally, the total plan membership (active employees and inactive employees) was 88. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 3.2510 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	\$	90,067
2. Assumption Changes (gains) or losses	\$	0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		3.2510
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	\$	27,704
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	\$	27,704
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	\$	62,363
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	\$	62,363

## B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$	(643,930)
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	\$	(128,786)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$	(515,144)

*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	\$ 88,148	\$ 67,164	\$ 20,984
2. Due to Assets	141,775	428,319	(286,544)
<b>3. Total</b>	<b>\$ 229,923</b>	<b>\$ 495,483</b>	<b>\$ (265,560)</b>

## 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	\$ 61,308	\$ 45,030	\$ 16,278
2. Assumption changes	26,840	22,134	4,706
3. Net difference between projected and actual earnings on pension plan investments	141,775	428,319	(286,544)
<b>4. Total</b>	<b>\$ 229,923</b>	<b>\$ 495,483</b>	<b>\$ (265,560)</b>

## 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	\$ 76,666	\$ 26,176	\$ 50,490
2. Assumption changes	0	33,836	\$ (33,836)
3. Net difference between projected and actual earnings on pension plan investments	141,776	1,026,025	(884,249)
<b>4. Total</b>	<b>\$ 218,442</b>	<b>\$ 1,086,037</b>	<b>\$ (867,595)</b>

## 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	\$ (211,415)
2023	(320,992)
2024	(206,402)
2025	(128,786)
2026	0
Thereafter	0
<b>Total</b>	<b>\$ (867,595)</b>

# 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
<b>Deferred Outflow (Inflow) due to Differences Between Expected and Actual Experience on Liabilities</b>					
2014	\$ 0	1.0000	\$ 0	\$ 0	0.0000
2015	74,069	3.9763	0	0	0.0000
2016	(186,602)	3.4151	0	0	0.0000
2017	145,089	3.1399	0	0	0.0000
2018	187,495	3.4456	24,247	0	0.0000
2019	(161,266)	3.5813	(45,030)	(26,176)	0.5813
2020	33,017	3.5287	9,357	14,303	1.5287
2021	90,067	3.2510	27,704	62,363	2.2510
<b>Total</b>			<b>\$ 16,278</b>	<b>\$ 50,490</b>	
<b>Deferred Outflow (Inflow) due to Assumption Changes</b>					
2014	\$ 0	1.0000	\$ 0	\$ 0	0.0000
2015	15,147	3.9763	0	0	0.0000
2016	(23,556)	3.4151	0	0	0.0000
2017	(184,589)	3.1399	0	0	0.0000
2018	207,545	3.4456	26,840	0	0.0000
2019	0	3.5813	0	0	0.5813
2020	(78,104)	3.5287	(22,134)	(33,836)	1.5287
2021	0	3.2510	0	0	2.2510
<b>Total</b>			<b>\$ 4,706</b>	<b>\$ (33,836)</b>	
<b>Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments</b>					
2017	\$ (431,885)	5.0000	\$ (86,377)	\$ 0	0.0000
2018	708,876	5.0000	141,775	141,776	1.0000
2019	(642,918)	5.0000	(128,584)	(257,166)	2.0000
2020	(422,859)	5.0000	(84,572)	(253,715)	3.0000
2021	(643,930)	5.0000	(128,786)	(515,144)	4.0000
<b>Total</b>			<b>\$ (286,544)</b>	<b>\$ (884,249)</b>	



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

<b>A. Total pension liability</b>		
1. Service Cost	\$	105,449
2. Interest on the Total Pension Liability		506,820
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		90,067
5. Changes of assumptions		0
6. Benefit payments, including refunds of employee contributions		(310,967)
7. Net change in total pension liability	\$	391,369
8. Total pension liability – beginning		7,093,383
9. Total pension liability – ending	<u>\$</u>	<u>7,484,752</u>
<b>B. Plan fiduciary net position</b>		
1. Contributions – employer	\$	138,854
2. Contributions – employee		52,877
3. Net investment income		1,148,054
4. Benefit payments, including refunds of employee contributions		(310,967)
5. Other (Net Transfer)		27,061
6. Net change in plan fiduciary net position	\$	1,055,879
7. Plan fiduciary net position – beginning		6,999,526
8. Plan fiduciary net position – ending	<u>\$</u>	<u>8,055,405</u>
<b>C. Net pension liability/(asset)</b>	<u>\$</u>	<u>(570,653)</u>
<b>D. Plan fiduciary net position as a percentage of the total pension liability</b>		<b>107.62%</b>
<b>E. Covered Valuation payroll<sup>(1)</sup></b>	\$	<b>1,099,409</b>
<b>F. Net pension liability as a percentage of covered valuation payroll</b>		<b>(51.91)%</b>

<sup>(1)</sup> 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	\$ 8,468,692	\$ 7,484,752	\$ 6,715,148
Plan Fiduciary Net Position	8,055,405	8,055,405	8,055,405
Net Pension Liability/(Asset)	\$ 413,287	\$ (570,653)	\$ (1,340,257)

# 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
<b>Total Pension Liability</b>										
Service Cost	\$ 105,449	\$ 118,112	\$ 109,822	\$ 105,468	\$ 96,242	\$ 109,139	\$ 113,280			
Interest on the Total Pension Liability	506,820	487,532	476,155	441,523	422,508	411,317	378,708			
Benefit Changes	0	0	0	0	0	0	0			
Difference between Expected and Actual Experience	90,067	33,017	(161,266)	187,495	145,089	(186,602)	74,069			
Assumption Changes	0	(78,104)	0	207,545	(184,589)	(23,556)	15,147			
Benefit Payments and Refunds	(310,967)	(265,405)	(278,443)	(248,612)	(212,057)	(141,258)	(116,864)			
<b>Net Change in Total Pension Liability</b>	<b>391,369</b>	<b>295,152</b>	<b>146,268</b>	<b>693,419</b>	<b>267,193</b>	<b>169,040</b>	<b>464,340</b>			
<b>Total Pension Liability - Beginning</b>	<b>7,093,383</b>	<b>6,798,231</b>	<b>6,651,963</b>	<b>5,958,544</b>	<b>5,691,351</b>	<b>5,522,311</b>	<b>5,057,971</b>			
<b>Total Pension Liability - Ending (a)</b>	<b>\$ 7,484,752</b>	<b>\$ 7,093,383</b>	<b>\$ 6,798,231</b>	<b>\$ 6,651,963</b>	<b>\$ 5,958,544</b>	<b>\$ 5,691,351</b>	<b>\$ 5,522,311</b>			
<b>Plan Fiduciary Net Position</b>										
Employer Contributions	\$ 138,854	\$ 135,185	\$ 114,936	\$ 135,372	\$ 126,481	\$ 111,845	\$ 113,877			
Employee Contributions	52,877	74,173	50,227	49,567	47,402	42,870	46,927			
Pension Plan Net Investment Income	1,148,054	867,729	1,026,568	(280,874)	799,888	312,759	23,176			
Benefit Payments and Refunds	(310,967)	(265,405)	(278,443)	(248,612)	(212,057)	(141,258)	(116,864)			
Other	27,061	47,367	(242,339)	151,102	(49,068)	40,740	(96,914)			
<b>Net Change in Plan Fiduciary Net Position</b>	<b>1,055,879</b>	<b>859,049</b>	<b>670,949</b>	<b>(193,445)</b>	<b>712,646</b>	<b>366,956</b>	<b>(29,798)</b>			
<b>Plan Fiduciary Net Position - Beginning</b>	<b>6,999,526</b>	<b>6,140,477</b>	<b>5,469,528</b>	<b>5,662,973</b>	<b>4,950,327</b>	<b>4,583,371</b>	<b>4,613,169</b>			
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 8,055,405</b>	<b>\$ 6,999,526</b>	<b>\$ 6,140,477</b>	<b>\$ 5,469,528</b>	<b>\$ 5,662,973</b>	<b>\$ 4,950,327</b>	<b>\$ 4,583,371</b>			
<b>Net Pension Liability/(Asset) - Ending (a) - (b)</b>	<b>(570,653)</b>	<b>93,857</b>	<b>657,754</b>	<b>1,182,435</b>	<b>295,571</b>	<b>741,024</b>	<b>938,940</b>			
<b>Plan Fiduciary Net Position as a Percentage</b>										
<b>of Total Pension Liability</b>	107.62%	98.68 %	90.32 %	82.22 %	95.04 %	86.98%	83.00 %			
<b>Covered Valuation Payroll<sup>(1)</sup></b>	\$ 1,099,409	\$ 1,069,494	\$ 1,115,881	\$ 1,101,487	\$ 999,847	\$ 952,673	\$ 1,042,824			
<b>Net Pension Liability as a Percentage</b>										
<b>of Covered Valuation Payroll</b>	(51.91)%	8.78 %	58.94 %	107.35 %	29.56 %	77.78%	90.04 %			

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

# Multiyear Schedule of Contributions

## Last 10 Calendar Years

Calendar Year Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Valuation Payroll	Actual Contribution as a % of Covered Valuation Payroll
2015	\$ 113,876	\$ 113,877	\$ (1)	\$ 1,042,824	10.92%
2016	111,844	111,845	(1)	952,673	11.74%
2017	126,481	126,481	(0)	999,847	12.65%
2018	135,373	135,372	1	1,101,487	12.29%
2019	114,936	114,936	0	1,115,881	10.30%
2020	135,184	135,185	(1)	1,069,494	12.64%
2021	138,855 *	138,854	1	1,099,409	12.63%

\* Estimated based on contribution rate of 12.63% and covered valuation payroll of \$1,099,409.  
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)	\$	1,390,032
2. Employer Contribution Reserve (EAF assets from IMRF)		3,098,925
3. Annuitant Reserve		3,576,670
4. Miscellaneous Adjustment*		(10,222)
<b>5. Net Market Value</b>	<b>\$</b>	<b>8,055,405</b>

\* 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	\$	138,854
b.) Accelerated payments and Reserve Payments		-
<b>Total Employer Contributions (a+b)</b>	<b>\$</b>	<b>138,854</b>

#### 2. Member

a.) Wage Reporting	\$	49,474
b.) Member Payments (i.e., ERI, Pension Payments)		3,403
<b>Sub-total (Amount used for valuation on Schedule of Changes Page 11)</b>	<b>\$</b>	<b>52,877</b>

c.) Voluntary Additional Plan	\$	7,941
<b>Total Member Contributions (a+b+c)</b>	<b>\$</b>	<b>60,818</b>

<b>Total Employer and Member Contributions (1+2)</b>	<b>\$</b>	<b>199,672</b>
--	-----------	----------------



## **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	\$ 1,099,409				
2022	1,083,962	\$ 48,778	\$ 62,064	\$ 30,237	\$ 141,079
2023	1,001,627	45,073	56,055	5,243	106,371
2024	936,374	42,137	51,751	(23,139)	70,749
2025	881,515	39,668	48,719	(48,140)	40,247
2026	835,455	37,595	46,174	(46,174)	37,595
2027	795,866	35,814	43,906	(43,906)	35,814
2028	759,881	34,195	41,846	(41,846)	34,194
2029	723,015	32,536	39,672	(39,672)	32,535
2030	685,203	30,834	37,461	(37,461)	30,834
2031	648,072	29,163	35,366	(35,366)	29,163
2032	611,461	27,516	33,247	(33,247)	27,515
2033	571,989	25,739	30,930	(30,930)	25,739
2034	530,886	23,890	28,549	(28,549)	23,890
2035	489,027	22,006	26,054	(26,054)	22,007
2036	450,820	20,287	23,795	(23,795)	20,286
2037	418,607	18,837	21,886	(21,886)	18,837
2038	384,126	17,286	19,892	(19,892)	17,286
2039	349,600	15,732	17,861	(17,861)	15,732
2040	316,751	14,254	15,962	(15,962)	14,254
2041	284,037	12,782	14,172	(14,172)	12,782
2042	252,654	11,369	12,380	(12,380)	11,370
2043	227,023	10,216	10,898	0	21,115
2044	205,930	9,267	9,722	0	18,989
2045	186,919	8,411	8,694	0	17,106
2046	170,144	7,656	7,796	0	15,452
2047	152,164	6,847	6,851	0	13,698
2048	134,687	6,061	5,957	0	12,018
2049	122,192	5,499	5,295	0	10,793
2050	112,980	5,084	4,794	0	9,878
2051	103,621	4,663	4,315	0	8,978
2052	95,308	4,289	3,893	0	8,182
2053	90,467	4,071	3,623	0	7,694
2054	87,598	3,942	3,456	0	7,398
2055	85,522	3,848	3,323	0	7,171
2056	83,755	3,769	3,213	0	6,982
2057	80,958	3,643	3,065	0	6,708
2058	78,185	3,518	2,937	0	6,455
2059	49,914	2,246	1,870	0	4,116
2060	13,340	600	501	0	1,101
2061	3,928	177	153	0	329
2062	1,325	60	55	0	115
2063	513	23	24	0	47
2064	295	13	15	0	28
2065	123	6	6	0	12
2066	3	0	0	0	0
2067	1	0	0	0	0
2068	0	0	0	0	0
2069	0	0	0	0	0
2070	0	0	0	0	0
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	\$ 8,055,405	\$ 141,079	\$ 333,709	\$ 577,156	\$ 8,439,931
2023	8,439,931	106,371	362,527	602,772	8,786,547
2024	8,786,547	70,749	387,704	625,736	9,095,328
2025	9,095,328	40,248	418,565	645,937	9,362,948
2026	9,362,948	37,595	448,278	664,187	9,616,452
2027	9,616,452	35,814	469,873	681,733	9,864,127
2028	9,864,127	34,195	497,404	698,652	10,099,569
2029	10,099,569	32,536	525,629	714,657	10,321,132
2030	10,321,132	30,834	552,731	729,694	10,528,929
2031	10,528,929	29,163	586,590	743,494	10,714,996
2032	10,714,996	27,516	617,859	755,812	10,880,465
2033	10,880,465	25,739	645,763	766,751	11,027,192
2034	11,027,192	23,890	675,394	776,268	11,151,956
2035	11,151,956	22,006	706,437	784,140	11,251,666
2036	11,251,666	20,287	730,627	790,447	11,331,773
2037	11,331,773	18,837	755,885	795,303	11,390,028
2038	11,390,028	17,286	782,030	798,540	11,423,824
2039	11,423,824	15,732	805,729	800,091	11,433,918
2040	11,433,918	14,254	828,473	799,960	11,419,658
2041	11,419,658	12,782	849,850	798,112	11,380,702
2042	11,380,702	11,369	865,735	794,672	11,321,008
2043	11,321,008	21,115	874,908	790,365	11,257,580
2044	11,257,580	18,989	880,480	785,492	11,181,580
2045	11,181,580	17,106	883,224	779,817	11,095,279
2046	11,095,279	15,452	883,655	773,486	11,000,562
2047	11,000,562	13,698	884,159	766,539	10,896,640
2048	10,896,640	12,018	879,918	759,095	10,787,835
2049	10,787,835	10,793	870,960	751,483	10,679,151
2050	10,679,151	9,878	858,843	744,002	10,574,189
2051	10,574,189	8,978	846,627	736,795	10,473,335
2052	10,473,335	8,182	830,849	730,017	10,380,685
2053	10,380,685	7,694	810,982	723,990	10,301,387
2054	10,301,387	7,398	790,381	718,964	10,237,368
2055	10,237,368	7,171	767,884	715,116	10,191,771
2056	10,191,771	6,982	742,647	712,702	10,168,808
2057	10,168,808	6,708	719,655	711,846	10,167,708
2058	10,167,708	6,455	693,891	712,675	10,192,947
2059	10,192,947	4,116	710,586	713,827	10,200,304
2060	10,200,304	1,101	712,336	714,191	10,203,260
2061	10,203,260	329	683,589	715,402	10,235,402
2062	10,235,402	115	651,248	718,876	10,303,145
2063	10,303,145	47	617,319	724,993	10,410,866
2064	10,410,866	28	583,185	734,018	10,561,727
2065	10,561,727	12	549,102	746,169	10,758,805
2066	10,758,805	0	514,168	761,701	11,006,339
2067	11,006,339	0	478,945	780,902	11,308,296
2068	11,308,296	0	443,870	804,043	11,668,469
2069	11,668,469	0	409,327	831,385	12,090,527
2070	12,090,527	0	375,721	863,182	12,577,988
2071	12,577,988	0	343,449	899,672	13,134,211

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.



# 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	\$ 13,134,211	\$ 0	\$ 312,856	\$ 941,088	\$ 13,762,442
2073	13,762,442	0	284,232	987,654	14,465,864
2074	14,465,864	0	257,775	1,039,594	15,247,683
2075	15,247,683	0	233,586	1,097,138	16,111,235
2076	16,111,235	0	211,707	1,160,524	17,060,052
2077	17,060,052	0	192,120	1,230,011	18,097,944
2078	18,097,944	0	174,743	1,305,877	19,229,079
2079	19,229,079	0	159,431	1,388,430	20,458,078
2080	20,458,078	0	145,984	1,478,011	21,790,105
2081	21,790,105	0	134,160	1,575,004	23,230,950
2082	23,230,950	0	123,696	1,679,838	24,787,093
2083	24,787,093	0	114,331	1,792,992	26,465,754
2084	26,465,754	0	105,818	1,914,998	28,274,934
2085	28,274,934	0	97,934	2,046,445	30,223,446
2086	30,223,446	0	90,496	2,187,977	32,320,926
2087	32,320,926	0	83,352	2,340,298	34,577,872
2088	34,577,872	0	76,391	2,504,175	37,005,656
2089	37,005,656	0	69,552	2,680,433	39,616,537
2090	39,616,537	0	62,802	2,869,962	42,423,697
2091	42,423,697	0	56,145	3,073,718	45,441,270
2092	45,441,270	0	49,626	3,292,725	48,684,369
2093	48,684,369	0	43,307	3,528,074	52,169,136
2094	52,169,136	0	37,268	3,780,935	55,912,803
2095	55,912,803	0	31,591	4,052,553	59,933,765
2096	59,933,765	0	26,340	4,344,260	64,251,686
2097	64,251,686	0	21,578	4,657,479	68,887,587
2098	68,887,587	0	17,349	4,993,732	73,863,970
2099	73,863,970	0	13,670	5,354,651	79,204,951
2100	79,204,951	0	10,540	5,741,984	84,936,395
2101	84,936,395	0	7,939	6,157,606	91,086,062
2102	91,086,062	0	5,833	6,603,532	97,683,761
2103	97,683,761	0	4,174	7,081,924	104,761,511
2104	104,761,511	0	2,906	7,595,106	112,353,712
2105	112,353,712	0	1,965	8,145,574	120,497,321
2106	120,497,321	0	1,288	8,736,010	129,232,043
2107	129,232,043	0	818	9,369,294	138,600,519
2108	138,600,519	0	502	10,048,520	148,648,536
2109	148,648,536	0	298	10,777,008	159,425,246
2110	159,425,246	0	171	11,558,324	170,983,399
2111	170,983,399	0	94	12,396,293	183,379,598
2112	183,379,598	0	50	13,295,019	196,674,567
2113	196,674,567	0	26	14,258,905	210,933,446
2114	210,933,446	0	13	15,292,674	226,226,108
2115	226,226,108	0	6	16,401,393	242,627,494
2116	242,627,494	0	3	17,590,493	260,217,984
2117	260,217,984	0	1	18,865,804	279,083,787
2118	279,083,787	0	1	20,233,575	299,317,361
2119	299,317,361	0	0	21,700,509	321,017,869
2120	321,017,869	0	0	23,273,795	344,291,664
2121	344,291,664	0	0	24,961,146	369,252,810

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



# Single Discount Rate Development

## Present Values of Projected Benefits

Year	Projected		Unfunded Portion		Present Value of	Present Value of	Present Value of
	Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	of Benefit Payments	Funded Benefit Payments using Expected Return Rate (v)	Unfunded Benefit Payments using Municipal Bond Rate (vf)	Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v <sup>a</sup> ((a)-.5)	(g)=(e)*vf <sup>a</sup> ((a)-.5)	(h)=(c)/(1+sdr) <sup>a</sup> ((a)-.5)
2022	\$ 8,055,405	\$ 333,709	\$ 333,709	\$ 0	\$ 322,233	\$ 0	\$ 322,233
2023	8,439,931	362,527	362,527	0	326,396	0	326,396
2024	8,786,547	387,704	387,704	0	325,467	0	325,467
2025	9,095,328	418,565	418,565	0	327,621	0	327,621
2026	9,362,948	448,278	448,278	0	327,160	0	327,160
2027	9,616,452	469,873	469,873	0	319,739	0	319,739
2028	9,864,127	497,404	497,404	0	315,593	0	315,593
2029	10,099,569	525,629	525,629	0	310,957	0	310,957
2030	10,321,132	552,731	552,731	0	304,886	0	304,886
2031	10,528,929	586,590	586,590	0	301,690	0	301,690
2032	10,714,996	617,859	617,859	0	296,291	0	296,291
2033	10,880,465	645,763	645,763	0	288,738	0	288,738
2034	11,027,192	675,394	675,394	0	281,573	0	281,573
2035	11,151,956	706,437	706,437	0	274,606	0	274,606
2036	11,251,666	730,627	730,627	0	264,810	0	264,810
2037	11,331,773	755,885	755,885	0	255,445	0	255,445
2038	11,390,028	782,030	782,030	0	246,415	0	246,415
2039	11,423,824	805,729	805,729	0	236,721	0	236,721
2040	11,433,918	828,473	828,473	0	226,949	0	226,949
2041	11,419,658	849,850	849,850	0	217,068	0	217,068
2042	11,380,702	865,735	865,735	0	206,177	0	206,177
2043	11,321,008	874,908	874,908	0	194,277	0	194,277
2044	11,257,580	880,480	880,480	0	182,297	0	182,297
2045	11,181,580	883,224	883,224	0	170,504	0	170,504
2046	11,095,279	883,655	883,655	0	159,056	0	159,056
2047	11,000,562	884,159	884,159	0	148,388	0	148,388
2048	10,896,640	879,918	879,918	0	137,694	0	137,694
2049	10,787,835	870,960	870,960	0	127,079	0	127,079
2050	10,679,151	858,843	858,843	0	116,840	0	116,840
2051	10,574,189	846,627	846,627	0	107,392	0	107,392
2052	10,473,335	830,849	830,849	0	98,266	0	98,266
2053	10,380,685	810,982	810,982	0	89,433	0	89,433
2054	10,301,387	790,381	790,381	0	81,269	0	81,269
2055	10,237,368	767,884	767,884	0	73,618	0	73,618
2056	10,191,771	742,647	742,647	0	66,386	0	66,386
2057	10,168,808	719,655	719,655	0	59,982	0	59,982
2058	10,167,708	693,891	693,891	0	53,925	0	53,925
2059	10,192,947	710,586	710,586	0	51,489	0	51,489
2060	10,200,304	712,336	712,336	0	48,127	0	48,127
2061	10,203,260	683,589	683,589	0	43,063	0	43,063
2062	10,235,402	651,248	651,248	0	38,252	0	38,252
2063	10,303,145	617,319	617,319	0	33,808	0	33,808
2064	10,410,866	583,185	583,185	0	29,780	0	29,780
2065	10,561,727	549,102	549,102	0	26,144	0	26,144
2066	10,758,805	514,168	514,168	0	22,826	0	22,826
2067	11,006,339	478,945	478,945	0	19,825	0	19,825
2068	11,308,296	443,870	443,870	0	17,131	0	17,131
2069	11,668,469	409,327	409,327	0	14,730	0	14,730
2070	12,090,527	375,721	375,721	0	12,607	0	12,607
2071	12,577,988	343,449	343,449	0	10,745	0	10,745

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.



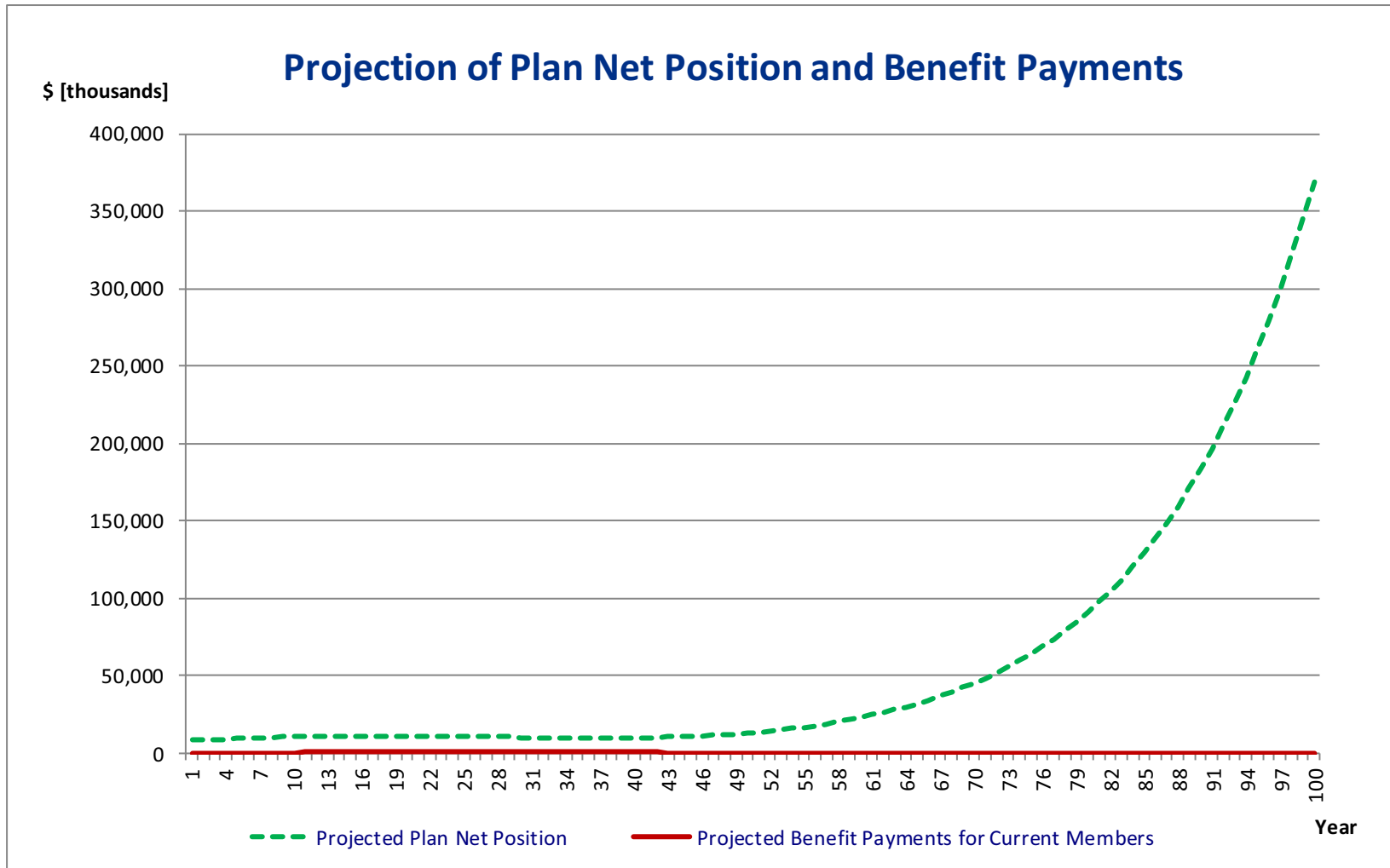
# Single Discount Rate Development

## 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 <sup>(a)-.5</sup>	(g)=(e)*vf <sup>(a)-.5</sup>	(h)=(c)/(1+sdr) <sup>(a)-.5</sup>
2072	\$ 13,134,211	\$ 312,856	\$ 312,856	\$ 0	\$ 9,126	\$ 0	\$ 9,126
2073	13,762,442	284,232	284,232	0	7,731	0	7,731
2074	14,465,864	257,775	257,775	0	6,537	0	6,537
2075	15,247,683	233,586	233,586	0	5,523	0	5,523
2076	16,111,235	211,707	211,707	0	4,667	0	4,667
2077	17,060,052	192,120	192,120	0	3,949	0	3,949
2078	18,097,944	174,743	174,743	0	3,349	0	3,349
2079	19,229,079	159,431	159,431	0	2,849	0	2,849
2080	20,458,078	145,984	145,984	0	2,433	0	2,433
2081	21,790,105	134,160	134,160	0	2,084	0	2,084
2082	23,230,950	123,696	123,696	0	1,792	0	1,792
2083	24,787,093	114,331	114,331	0	1,544	0	1,544
2084	26,465,754	105,818	105,818	0	1,333	0	1,333
2085	28,274,934	97,934	97,934	0	1,150	0	1,150
2086	30,223,446	90,496	90,496	0	991	0	991
2087	32,320,926	83,352	83,352	0	851	0	851
2088	34,577,872	76,391	76,391	0	727	0	727
2089	37,005,656	69,552	69,552	0	617	0	617
2090	39,616,537	62,802	62,802	0	520	0	520
2091	42,423,697	56,145	56,145	0	433	0	433
2092	45,441,270	49,626	49,626	0	357	0	357
2093	48,684,369	43,307	43,307	0	291	0	291
2094	52,169,136	37,268	37,268	0	233	0	233
2095	55,912,803	31,591	31,591	0	184	0	184
2096	59,933,765	26,340	26,340	0	143	0	143
2097	64,251,686	21,578	21,578	0	109	0	109
2098	68,887,587	17,349	17,349	0	82	0	82
2099	73,863,970	13,670	13,670	0	60	0	60
2100	79,204,951	10,540	10,540	0	43	0	43
2101	84,936,395	7,939	7,939	0	30	0	30
2102	91,086,062	5,833	5,833	0	21	0	21
2103	97,683,761	4,174	4,174	0	14	0	14
2104	104,761,511	2,906	2,906	0	9	0	9
2105	112,353,712	1,965	1,965	0	6	0	6
2106	120,497,321	1,288	1,288	0	3	0	3
2107	129,232,043	818	818	0	2	0	2
2108	138,600,519	502	502	0	1	0	1
2109	148,648,536	298	298	0	1	0	1
2110	159,425,246	171	171	0	0	0	0
2111	170,983,399	94	94	0	0	0	0
2112	183,379,598	50	50	0	0	0	0
2113	196,674,567	26	26	0	0	0	0
2114	210,933,446	13	13	0	0	0	0
2115	226,226,108	6	6	0	0	0	0
2116	242,627,494	3	3	0	0	0	0
2117	260,217,984	1	1	0	0	0	0
2118	279,083,787	1	1	0	0	0	0
2119	299,317,361	0	0	0	0	0	0
2120	321,017,869	0	0	0	0	0	0
2121	344,291,664	0	0	0	0	0	0
<b>Totals</b>					\$ 8,271,261	\$ -	\$ 8,271,261

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.





*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

## ***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)

<b><i>GASB</i></b>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<b><i>Fiduciary Net Position</i></b>	The fiduciary net position is the value of the assets of the trust.
<b><i>Long-Term Expected Rate of Return</i></b>	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.
<b><i>Money-Weighted Rate of Return</i></b>	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.
<b><i>Multiple-Employer Defined Benefit Pension Plan</i></b>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<b><i>Municipal Bond Rate</i></b>	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.
<b><i>Net Pension Liability (NPL)</i></b>	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
<b><i>Non-Employer Contribution Entities</i></b>	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.
<b><i>Normal Cost</i></b>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
<b><i>Other Postemployment Benefits (OPEB)</i></b>	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.
<b><i>Real Rate of Return</i></b>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<b><i>Service Cost</i></b>	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.