### Alsip Park Dist Regular

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



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March 28, 2023

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, 2022 for additional discussions of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

Alsip Park Dist Illinois Municipal Retirement Fund March 28, 2023 Page 2

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 COVID-19 pandemic, which is likely to influence demographic, economic, and health care experience, at least in the short term. Results in this report are developed based on available data without adjustment. We will continue to monitor these developments and their impact on the Plan. Actual experience will be reflected in each subsequent report, as experience emerges.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Mark Buis and Francois Pieterse are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted, Gabriel, Roeder, Smith & Company

Mark Buis, FSA, EA, FCA, MAAA

Francois Pieterse, ASA, FCA, MAAA

MB/FP:bd



### **SECTION A**

**EXECUTIVE SUMMARY** 

# **Executive Summary** as of December 31, 2022

Actuarial Valuation Date		mber 31, 2022
Measurement Date of the Net Pension Liability		mber 31, 2022
Fiscal Year End	Ар	ril 30, 2023
Membership		
Number of		
- Retirees and Beneficiaries		25
- Inactive, Non-Retired Members		41
- Active Members		25
- Total		91
Covered Valuation Payroll <sup>(1)</sup>	\$	1,142,782
Net Pension Liability		
Total Pension Liability/(Asset)	\$	7,674,956
Plan Fiduciary Net Position		6,769,768
Net Pension Liability/(Asset)	\$	905,188
Plan Fiduciary Net Position as a Percentage		
of Total Pension Liability		88.21%
Net Pension Liability as a Percentage		
of Covered Valuation Payroll		79.21%
Development of the Single Discount Rate as of December 31, 2022		
Long-Term Expected Rate of Investment Return		7.25%
Long-Term Municipal Bond Rate <sup>(2)</sup>		4.05%
Last year ending December 31 in the 2023 to 2122 projection period		
for which projected benefit payments are fully funded		2122
Resulting Single Discount Rate based on the above development		7.25%
Single Discount Rate calculated using December 31, 2021 Measurement Date		7.25%
Total Pension Expense/(Income)	\$	267,155

### Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

		Def	ferred Outflows	Deferred Inflows		
			of Resources	of Resource	es	
Difference between expected and actual experie	ence	\$	39,605	\$ 97,	948	
Changes in assumptions			0	11,	702	
Net difference between projected and actual ea	rnings 533,9	105				
on pension plan investments	333,5	783	1,218,068	684,	083	
Total	573,590	\$	1,257,673	\$ 793,	733	
	- , - , - , - ,					

+ subsequent 34,756 = 608,346 Does not necessarily represent Covered Employee Payroll as defined in GASB Statement No. 68.

Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of December 30, 2022. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a

diverse population of over 10,000 tax exempt securities.



109,650

### **Discussion**

### **Accounting Standard**

For state and local government employers (as well as certain non-employers) that contribute to a Defined Benefit (DB) pension plan administered through a trust or equivalent arrangement, Governmental Accounting Standards Board (GASB) Statement No. 68 establishes standards for pension accounting and financial reporting. Under GASB Statement No. 68, the employer must account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information is not included in this report if it is not actuarial in nature, such as the notes to the financial statements regarding accounting policies and investments. As a result, the retirement fund and/or plan sponsor is responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

#### **Financial Statements**

GASB Statement No. 68 requires state and local government employers that contribute to DB pension plans to recognize the net pension liability and the pension expense on their financial statements, along with the related deferred outflows of resources and deferred inflows of resources. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Paragraph 57 of GASB Statement No. 68 says, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to IMRF subsequent to the measurement date of December 31, 2022.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the certain changes in the liability and investment experience.



#### **Notes to Financial Statements**

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to pensions.

In addition, GASB Statement No. 68 requires the notes of the financial statements for the employers to include certain additional information, including (page numbers refer to page numbers from this report unless specified otherwise):

- A description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs (please see pages B-1 to B-5 of the December 31, 2022 Annual Actuarial Valuation report dated March 10, 2023);
- The number and classes of employees covered by the benefit terms (page 1);
- For the current year, sources of changes in the net pension liability (page 11);
- Significant assumptions and methods used to calculate the total pension liability (page 16);
- Inputs to the single discount rate (page 17);
- Certain information about mortality assumptions and the dates of experience studies (pages 14 and 16);
- The date of the valuation used to determine the total pension liability (page 1);
- Information about changes of assumptions or other inputs and benefit terms (pages 14 and 16);
- The basis for determining contributions to the plan, including a description of the plan's funding policy, as well as member and employer contribution requirements (please see page A-3, B-5 and Section D of the December 31, 2022 Annual Actuarial Valuation report dated March 10, 2023, as well as page 14);
- The total pension liability, fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability (page 11);
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes (page 11); and
- A description of the fund that administers the pension plan (to be provided by IMRF).

### **Required Supplementary Information**

The financial statements of employers also include required supplementary information showing the 10-year fiscal history of:

- Sources of changes in the net pension liability (page 12);
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll (page 12); and
- Comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy (page 13).

These tables may be built prospectively as the information becomes available.



### **Timing of the Valuation**

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net pension liability and pension expense should be measured as of the employer's "measurement date" which may not be earlier than the fiscal year-end date, consistently applied from period to period. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2022 and a measurement date of December 31, 2022.

### **Single Discount Rate**

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects: (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the plan's projected fiduciary net position is not sufficient to pay benefits).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%, the municipal bond rate is 4.05% (based on the daily rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" described on page 1), and the resulting Single Discount Rate is 7.25%.



### **Other Observations**

### **General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status**

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), it is expected that:

- (1) The employer normal cost as a percentage of pay will decrease to the level of Tier 2 normal cost as time passes, as the majority of the active population will consist of Tier 2 members.
- (2) The unfunded liability will increase in dollar amount for several years before it begins to decrease.
- (3) The funded status of the plan will increase gradually towards a 100% funded ratio.

This funding policy results in a crossover date in 2122 and a discount rate of 7.25%. The projections in this report are strictly for the purposes of determining the GASB discount rate and are different from a funding projection for the ongoing plan.

### **Limitations of Assets as a Percent of Total Pension Liability Measurements**

This report includes a measure of the plan fiduciary net position as a percent of total pension liability. Unless otherwise indicated, with regard to any such measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- (2) The measurement is inappropriate for assessing the need for or amount of future employer contributions.

#### **Limitations of Funded Status Measurements**

Unless otherwise indicated, a funded ratio measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; in other words, if transferring the obligations to an unrelated third party in an arm's length market value type transaction.
- (2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amount of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon actuarial assumptions. A funded ratio measurement in this report of 100% is not synonymous with no required future contributions. If the funded ratio were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).



### **Limitation of Project Scope**

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.



### **SECTION B**

**FINANCIAL STATEMENTS** 

# Pension Expense/(Income) Under GASB Statement No. 68 Calendar Year Ended December 31, 2022

### A. Expense/(Income)

1. Service Cost	\$ 108,154
2. Interest on the Total Pension Liability	535,555
3. Current-Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	(51,425)
5. Projected Earnings on Plan Investments (made negative for addition here)	(571,876)
6. Other Changes in Plan Fiduciary Net Position	205,467
7. Recognition of Outflow (Inflow) of Resources due to Liabilities	(63,071)
8. Recognition of Outflow (Inflow) of Resources due to Assets	 104,351
9. Total Pension Expense/(Income)	\$ 267,155

### **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 263 years. Additionally, the total plan membership (active employees and inactive employees) was 91. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 2.8901 years.

Additionally, differences between projected and actual earnings on pension plan investments should be recognized in the pension expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.



### Statement of Outflows and Inflows Arising from Current Reporting Period Calendar Year Ended December 31, 2022

A. Outflows (Inflows) of Resources due to Liabilities	
1. Difference between expected and actual experience	
of the Total Pension Liability (gains) or losses	\$ (149,770)
2. Assumption Changes (gains) or losses	\$ 0
3. Recognition period for Liabilities: Average of the	
expected remaining service lives of all employees {in years}	2.8901
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	\$ (51,822)
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	\$ (51,822)
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	\$ (97,948)
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	\$ (97,948)
B. Outflows (Inflows) of Resources due to Assets	
1. Net difference between projected and actual earnings on	
pension plan investments (gains) or losses	\$ 1,522,585
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	\$ 304,517
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses	
due to Assets	\$ 1,218,068

Please note that employer contributions made after the measurement date have not been reported as deferred outflows of resources. These employer contributions must be separately accounted for by the employer.



### Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Calendar Year Ended December 31, 2022

#### A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense

	U	uttiows		Intiows	N	et Outflows
	of F	Resources	of	Resources	of	f Resources
1. Due to Liabilities	\$	37,061	\$	100,132	\$	(63,071)
2. Due to Assets		446,293		341,942		104,351
3. Total	\$	483,354	\$	442,074	\$	41,280

#### B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

	C	Outflows	Inflows	Net Outflows
	of	Resources	of Resources	of Resources
1. Differences between expected and actual experience	\$	37,061	\$ 77,998	\$ (40,937)
2. Assumption changes		0	22,134	\$ (22,134)
3. Net difference between projected and actual				
earnings on pension plan investments		446,293	341,942	104,351
4. Total	\$	483,354	\$ 442,074	\$ 41,280

#### C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows		Def	Deferred Inflows		Net Deferred Outflows	
	o	f Resources	01	f Resources	of	Resources	
1. Differences between expected and actual experience	\$	39,605	\$	97,948	\$	(58,343)	
2. Assumption changes		0		11,702	\$	(11,702)	
3. Net difference between projected and actual							
earnings on pension plan investments		1,218,068		684,083		533,985	
4. Total	\$	1,257,673	\$	793,733	\$	463,940	

### D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending December 31	Net Deferred Outflows of Resources		
2023	\$	(68,297)	
2024		51,989	
2025		175,731	
2026		304,517	
2027		0	
Thereafter		0	
Total	\$	463.940	



### Recognition of Deferred Outflows and Inflows of Resources Reporting Date - December 31, 2022

		Initial Recognition	Current Year		Remaining	Remaining Recognition
Year Established	<b>Initial Amount</b>	Period	Recognition	R	ecognition	Period
<b>Deferred Outflow</b>	(Inflow) due to Diff	erences Betwe	en Expected an	d Actua	l Experience o	on Liabilities
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		0	0	0.0000
2019	(161,266)	3.5813	(26,17	76)	0	0.0000
2020	33,017	3.5287	9,35	57	4,946	0.5287
2021	90,067	3.2510	27,70	)4	34,659	1.2510
2022	(149,770)	2.8901	(51,82	22)	(97,948)	1.8901
Total			\$ (40,93	37)	\$ (58,343)	
<b>Deferred Outflow</b>	(Inflow) due to Ass	umption Chang				
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		0	0	0.0000
2019	0	3.5813		0	0	0.0000
2020	(78,104)	3.5287	(22,13	34)	(11,702)	0.5287
2021	0	3.2510		0	0	1.2510
2022	0	2.8901		0	0	1.8901
Total			\$ (22,13	34) \$	(11,702)	
<b>Deferred Outflow</b>	(Inflow) due to Diff	erences Betwe	en Projected an		_	Plan Investments
2018	\$ 708,876	5.0000	\$ 141,77	76 \$	0	0.0000
2019	(642,918)	5.0000	(128,58	•	(128,582)	1.0000
2020	(422,859)	5.0000	(84,57	72)	(169,143)	2.0000
2021	(643,930)	5.0000	(128,78	•	(386,358)	3.0000
2022	1,522,585	5.0000	304,51	.7	1,218,068	4.0000
Total			\$ 104,35	51	\$ 533,985	



# Schedule of Changes in Net Pension Liability and Related Ratios Current Period Calendar Year Ended December 31, 2022

A. Total pension liability	
1. Service Cost	\$ 108,154
2. Interest on the Total Pension Liability	535,555
3. Changes of benefit terms	0
4. Difference between expected and actual experience	
of the Total Pension Liability	(149,770)
5. Changes of assumptions	0
6. Benefit payments, including refunds	
of employee contributions	 (303,735)
7. Net change in total pension liability	\$ 190,204
8. Total pension liability – beginning	 7,484,752
9. Total pension liability – ending	\$ 7,674,956
B. Plan fiduciary net position	
1. Contributions – employer	\$ 122,849
2. Contributions – employee	51,425
3. Net investment income	(950,709)
4. Benefit payments, including refunds	
of employee contributions	(303,735)
5. Other (Net Transfer)	 (205,467)
6. Net change in plan fiduciary net position	\$ (1,285,637)
7. Plan fiduciary net position – beginning	 8,055,405
8. Plan fiduciary net position – ending	\$ 6,769,768
C. Net pension liability/(asset)	\$ 905,188
D. Plan fiduciary net position as a percentage	
of the total pension liability	88.21%
E. Covered Valuation payroll <sup>(1)</sup>	\$ 1,142,782
F. Net pension liability as a percentage	
of covered valuation payroll	79.21%

<sup>&</sup>lt;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 Rate Assum 6.25% 7.25%		e Assumption		1% Increase		
				7.25%	8.25%		
Total Pension Liability	\$	8,682,816	\$	7,674,956	\$	6,880,846	
Plan Fiduciary Net Position		6,769,768		6,769,768		6,769,768	
Net Pension Liability/(Asset)	\$	1,913,048	\$	905,188	\$	111,078	



# Schedules of Required Supplementary Information Multiyear Schedule of Changes in Net Pension Liability and Related Ratios

#### Last 10 Calendar Years

(schedule to be built prospectively from 2014)

Calendar year ending December 31,	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability										
Service Cost	\$ 108,154 \$	105,449 \$	118,112 \$	109,822 \$	105,468 \$	96,242 \$	109,139 \$	113,280		
Interest on the Total Pension Liability	535,555	506,820	487,532	476,155	441,523	422,508	411,317	378,708		
Benefit Changes	0	0	0	0	0	0	0	0		
Difference between Expected and Actual Experience	(149,770)	90,067	33,017	(161,266)	187,495	145,089	(186,602)	74,069		
Assumption Changes	0	0	(78,104)	0	207,545	(184,589)	(23,556)	15,147		
Benefit Payments and Refunds	 (303,735)	(310,967)	(265,405)	(278,443)	(248,612)	(212,057)	(141,258)	(116,864)		
Net Change in Total Pension Liability	190,204	391,369	295,152	146,268	693,419	267,193	169,040	464,340		
Total Pension Liability - Beginning	7,484,752	7,093,383	6,798,231	6,651,963	5,958,544	5,691,351	5,522,311	5,057,971		
Total Pension Liability - Ending (a)	\$ 7,674,956 \$	7,484,752 \$	7,093,383 \$	6,798,231 \$	6,651,963 \$	5,958,544 \$	5,691,351 \$	5,522,311		
Plan Fiduciary Net Position										
Employer Contributions	\$ 122,849 \$	138,854 \$	135,185 \$	114,936 \$	135,372 \$	126,481 \$	111,845 \$	113,877		
Employee Contributions	51,425	52,877	74,173	50,227	49,567	47,402	42,870	46,927		
Pension Plan Net Investment Income	(950,709)	1,148,054	867,729	1,026,568	(280,874)	799,888	312,759	23,176		
Benefit Payments and Refunds	(303,735)	(310,967)	(265,405)	(278,443)	(248,612)	(212,057)	(141,258)	(116,864)		
Other	 (205,467)	27,061	47,367	(242,339)	151,102	(49,068)	40,740	(96,914)		
Net Change in Plan Fiduciary Net Position	(1,285,637)	1,055,879	859,049	670,949	(193,445)	712,646	366,956	(29,798)		
Plan Fiduciary Net Position - Beginning	 8,055,405	6,999,526	6,140,477	5,469,528	5,662,973	4,950,327	4,583,371	4,613,169		
Plan Fiduciary Net Position - Ending (b)	\$ 6,769,768 \$	8,055,405 \$	6,999,526 \$	6,140,477 \$	5,469,528 \$	5,662,973 \$	4,950,327 \$	4,583,371		
Net Pension Liability/(Asset) - Ending (a) - (b)	905,188	(570,653)	93,857	657,754	1,182,435	295,571	741,024	938,940		_
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	88.21%	107.62%	98.68%	90.32%	82.22%	95.04%	86.98%	83.00%		
Covered Valuation Payroll <sup>(1)</sup>	\$ 1,142,782 \$	1,099,409 \$	1,069,494 \$	1,115,881 \$	1,101,487 \$	999,847 \$	952,673 \$	1,042,824		
Net Pension Liability as a Percentage										
of Covered Valuation Payroll	79.21%	(51.91)%	8.78%	58.94%	107.35%	29.56%	77.78%	90.04%		

<sup>&</sup>lt;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,	De	ctuarially etermined ntribution	Co	Actual ntribution	Defi	ribution ciency cess)	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%
2022		122,849	*	122,849		0	1,142,782	10.75%

<sup>\*</sup> Estimated based on contribution rate of 10.75% and covered valuation payroll of \$1,142,782. This number should be verified by the auditor.



### **Notes to Schedule of Contributions**

### Summary of Actuarial Methods and Assumptions Used in the Calculation of the 2022 Contribution Rate\*

Valuation Date:

Notes Actuarially determined contribution rates are calculated as of December 31 each

year, which is 12 months prior to the beginning of the calendar year in which

contributions are reported.

Methods and Assumptions Used to Determine 2022 Contribution Rates:

Actuarial Cost Method Aggregate Entry Age Normal
Amortization Method Level Percentage of Payroll, Closed

Remaining Amortization Period Non-Taxing bodies: 10-year rolling period.

Taxing bodies (Regular, SLEP and ECO groups): 21-year closed period.

Early Retirement Incentive Plan liabilities: a period up to 10 years selected by the

Employer upon adoption of ERI.

SLEP supplemental liabilities attributable to Public Act 94-712 were financed over 16 years for most employers (five employers were financed over 17 years; one employer was financed over 18 years; two employers were financed over 19 years; one employer was financed over 20 years; three employers were financed over 25 years; four employers were financed over 26 years and one employer

was financed over 27 years).

Asset Valuation Method 5-Year smoothed market; 20% corridor

Wage growth 2.75% Price Inflation 2.25%

Salary Increases 2.85% to 13.75% including inflation

Investment Rate of Return 7.25%

Retirement Age Experience-based table of rates that are specific to the type of eligibility

condition. Last updated for the 2020 valuation pursuant to an experience study

of the period 2017-2019.

Mortality For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median

income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements

projected using scale MP-2020.

Other Information:

Notes There were no benefit changes during the year.



<sup>\*</sup> Based on Valuation Assumptions used in the December 31, 2020 actuarial valuation.

### **Development of Market Value of Assets**

#### Market Value of Assets as of December 31, 2022

5. Net Market Value	\$ 6,769,768
4. Miscellaneous Adjustment*	 (26,269)
3. Annuitant Reserve	3,355,906
2. Employer Contribution Reserve (EAF assets from IMRF)	1,902,085
1. Employee Contribution Reserve (MDF Assets from IMRF)	\$ 1,538,046

<sup>\*</sup> Includes an adjustment factor of (0.003865352) on Items 1 through 3 to ensure that Market Value of Assets for all employers balance to the total Market Value of IMRF. Miscellaneous adjustments are due to various items such as suspended annuity reserve, disability benefit reserve, death benefit reserve, supplemental benefit reserve, employers with no assets, etc.

### **Schedule of Contributions**

#### **Total Contributions**

1. Employer		
a.) Wage Reporting	\$	122,849
b.) Accelerated payments and Reserve Payments		0
Total Employer Contributions (a+b)	\$	122,849
2. Member		
a.) Wage Reporting	\$	51,425
b.) Member Payments (i.e., ERI, Pension Payments)		0
Sub-total (Amount used for valuation on Schedule of Changes Page 11)	\$	51,425
c.) Voluntary Additional Plan	\$	12,635
Total Member Contributions (a+b+c)	\$	64,060
Total Employer and Member Contributions (1+2)	Ś	186.909



## Summary of Actuarial Methods and Assumptions Used in the Calculation of the Total Pension Liability

#### Methods and Assumptions Used to Determine Total Pension Liability:

Actuarial Cost Method Entry Age Normal
Asset Valuation Method Market Value of Assets

Price Inflation 2.25%

Salary Increases 2.85% to 13.75%

Investment Rate of Return<sup>1</sup> 7.25%

Retirement Age Experience-based table of rates that are specific to the type of eligibility

condition. Last updated for the 2020 valuation pursuant to an experience study

of the period 2017-2019.

Mortality For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median

income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements

projected using scale MP-2020.

Other Information:

Notes There were no benefit changes during the year.

A detailed description of the actuarial assumptions and methods can be found in the December 31, 2022 IMRF annual actuarial valuation report.



<sup>&</sup>lt;sup>1</sup> There were no changes in the investment rate of return since the December 31, 2021 valuation. There were no other changes to the methods and assumptions used to determine the Total Pension Liability.



CALCULATION OF THE SINGLE DISCOUNT RATE

### **Calculation of the Single Discount Rate**

GASB Statement No. 68 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 4.05%; and the resulting single discount rate is 7.25%.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

Expected Contributions are developed based on the following:

- Member Contributions for current members
- Normal Cost contributions for current members
- Unfunded Liability contributions for current members

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the SDR. It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.



# **Single Discount Rate Development Projection of Contributions**

		Payroll for Current	Contributions from Current	Normal Cost	UAL	Total
Ye	ear	Employees	Employees	Contributions	Contributions	Contributions
20		ć 1142.702				
	)22	\$ 1,142,782	ć 40.0F1	ć (1.103	ć 25.047	ć 12F 001
	023	1,085,571	\$ 48,851	\$ 61,103	\$ 25,047	\$ 135,001
	)24	1,006,146	45,277	57,436	37,376	140,088
	025	940,149	42,307	53,105	51,302	146,714
	026	884,508	39,803	49,963	67,051	156,816
	)27	837,131	37,671	47,203	84,888	169,762
	028	795,255	35,787	44,762	87,010	167,559
	)29 )30	752,529 708,874	33,864	42,207 39,617	89,185	165,256
			31,899	· ·	91,415	162,932
	)31 )32	666,796 625,634	30,006	37,199	93,700	160,905
	)33		28,154	34,840	96,043	159,037
		581,413	26,164	32,204	98,444	156,811
	)34	535,977	24,119	29,527 26,801	100,905 103,427	154,551 152,280
	)35	490,053	22,052	•	·	•
	)36 )37	448,005	20,160 18,566	24,323 22,235	106,013 108,663	150,496 149,464
		412,581	•	· ·	·	•
	)38	374,807	16,866	20,012 17,774	111,380 114,165	148,258
	)39 )40	336,663	15,150	15,703	·	147,089
	)40 )41	300,285	13,513	· ·	117,019 119,944	146,235
	)42	264,383	11,897 10,343	13,720		145,562
		229,846	•	11,768	122,943	145,054
	)43 )44	201,303	9,059	10,146	0	19,204
		177,403 155,700	7,983 7,006	8,817 7,676	0	16,800 14,683
	)45 )46	136,332	6,135	6,653	0	12,788
	)47	115,236	5,186	5,555	0	10,740
	)48	93,663	4,215	4,468	0	8,683
	)49	76,855	3,459	3,628	0	7,087
	)50	64,165	2,887	2,997	0	5,884
	)51	51,338	2,310	2,372	0	4,682
	)52	39,750	1,789	1,817	0	3,606
	)53	31,255	1,406	1,419	0	2,826
	)54	24,740	1,113	1,116	0	2,229
	)55	20,646	929	921	0	1,850
	)56	17,669	795	769	0	1,564
	)57	16,047	722	671	0	1,393
	)58	15,363	691	624	0	1,315
	)59	14,968	674	602	0	1,276
	060	9,779	440	386	0	827
	061	3,065	138	123	0	261
	062	1,119	50	49	0	99
	063	456	21	22	0	42
	064	282	13	15	0	28
	065	120	5	7	0	12
	066	2	0	0	0	0
	067	1	0	0	0	0
	068	0	0	0	0	0
	069	0	0	0	0	0
	070	0	0	0	0	0
	071	0	0	0	0	0
	072	0	0	0	0	0



# **Single Discount Rate Development Projection of Contributions (Concluded)**

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
	Linployees	Linployees	CONTENDUCIONS	Continuations	Contributions
2073	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2074	0	0	0	0	0
2075	0	0	0	0	0
2076	0	0	0	0	0
2077	0	0	0	0	0
2078	0	0	0	0	0
2079	0	0	0	0	0
2080	0	0	0	0	0
2081	0	0	0	0	0
2082	0	0	0	0	0
2083	0	0	0	0	0
2084	0	0	0	0	0
2085	0	0	0	0	0
2086	0	0	0	0	0
2087	0	0	0	0	0
2088	0	0	0	0	0
2089	0	0	0	0	0
2090	0	0	0	0	0
2091	0	0	0	0	0
2092	0	0	0	0	0
2093	0	0	0	0	0
2094	0	0	0	0	0
2095	0	0	0	0	0
2096	0	0	0	0	0
2097	0	0	0	0	0
2098	0	0	0	0	0
2099	0	0	0	0	0
2100	0	0	0	0	0
2101	0	0	0	0	0
2102	0	0	0	0	0
2103	0	0	0	0	0
2104	0	0	0	0	0
2105	0	0	0	0	0
2106	0	0	0	0	0
2107	0	0	0	0	0
2108	0	0	0	0	0
2109	0	0	0	0	0
2110	0	0	0	0	0
2111	0	0	0	0	0
2112	0	0	0	0	0
2113	0	0	0	0	0
2114	0	0	0	0	0
2115	0	0	0	0	0
2116	0	0	0	0	0
2117	0	0	0	0	0
2118	0	0	0	0	0
2119	0	0	0	0	0
2120	0	0	0	0	0
2121	0	0	0	0	0
2122	0	0	0	0	0



# **Single Discount Rate Development Projection of Plan Fiduciary Net Position**

				Projected	
	<b>Projected Beginning</b>	<b>Projected Total</b>	<b>Projected Benefit</b>	Investment	<b>Projected Ending Plan</b>
Year	Plan Net Position	Contributions	Payments	Earnings at 7.25%	Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2023	\$ 6,769,768	\$ 135,001	\$ 317,227	\$ 484,318	\$ 7,071,860
2024	7,071,860	140,088	348,365	505,292	7,368,875
2025	7,368,875	146,714	385,240	525,748	7,656,097
2026	7,656,097	156,816	420,841	545,664	7,937,735
2027	7,937,735	169,761	446,509	565,629	8,226,617
2028	8,226,617	167,559	477,555	585,389	8,502,010
2029	8,502,010	165,256	509,687	604,129	8,761,707
2030	8,761,707	162,931	540,058	621,792	9,006,372
2031	9,006,372	160,905	577,173	638,136	9,228,241
2032	9,228,241	159,036	611,636	652,928	9,428,569
2033	9,428,569	156,811	643,613	666,233	9,608,000
2034	9,608,000	154,550	676,905	677,976	9,763,621
2035	9,763,621	152,281	711,658	687,940	9,892,185
2036	9,892,185	150,496	739,482	696,206	9,999,405
2037	9,999,405	149,464	768,487	702,910	10,083,292
		•		*	10,140,912
2038	10,083,292	148,258	798,518	707,879	
2039	10,140,912	147,088	826,258	711,027	10,172,770
2040	10,172,770	146,235	852,639	712,367	10,178,732
2041	10,178,732	145,562	877,334	711,895	10,158,855
2042	10,158,855	145,053	896,432	709,756	10,117,232
2043	10,117,232	19,204	908,326	701,833	9,929,943
2044	9,929,943	16,800	916,437	687,880	9,718,186
2045	9,718,186	14,683	921,348	672,277	9,483,797
2046	9,483,797	12,788	923,964	655,123	9,227,745
2047	9,227,745	10,740	926,833	636,384	8,948,036
2048	8,948,036	8,683	925,442	616,082	8,647,359
2049	8,647,359	7,087	918,864	594,460	8,330,041
2050	8,330,041	5,884	907,971	571,799	7,999,754
2051	7,999,754	4,682	897,168	548,196	7,655,464
2052	7,655,464	3,606	882,321	523,725	7,300,474
2053	7,300,474	2,826	863,813	498,620	6,938,106
2054	6,938,106	2,229	844,102	473,029	6,569,262
2055	6,569,262	1,850	821,701	447,072	6,196,483
2056	6,196,483	1,564	795,873	420,955	5,823,128
2057	5,823,128	1,393	767,065	394,907	5,452,364
2058	5,452,364	1,315	736,273	369,120	5,086,526
2059	5,086,526	1,276	704,406	343,731	4,727,126
2060	4,727,126	827	678,840	318,569	4,367,682
2061	4,367,682	261	650,000	293,516	4,011,459
2062	4,011,459	99	615,871	268,900	3,664,586
2063	3,664,586	42	580,190	245,020	3,329,458
2064	3,329,458	28	543,554	222,028	3,007,960
2065	3,007,960	12	506,589	200,035	2,701,419
2066	2,701,419	0	469,083	179,146	2,411,482
2067	2,411,482	0	431,255	159,473	2,139,699
2068	2,139,699	0	393,602	141,110	1,887,207
2069	1,887,207	0	356,537	124,124	1,654,794
2070	1,654,794	0	320,493	108,558	1,442,859
2071	1,442,859	0	285,892	94,425	1,251,393
2072	1,251,393	0	253,105	81,711	1,079,999
2012	1,231,333	U	233,103	01,711	1,075,555



# Single Discount Rate Development Projection of Plan Fiduciary Net Position (Concluded)

	Projected Beginning	Projected Total	Projected Benefit	Projected Investment	Projected Ending Plan
Year	Plan Net Position	Contributions	Payments	Earnings at 7.25%	Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2073	\$ 1,079,999	\$ 0	\$ 222,447	\$ 70,377	\$ 927,929
2074	927,929	0	194,138	60,360	794,151
2075	794,151	0	168,302	51,582	677,431
2076	677,431	0	144,999	43,949	576,381
2077	576,381	0	124,237	37,363	489,507
2078	489,507	0	105,962	31,715	415,260
2079	415,260	0	90,068	26,899	352,090
2080	352,090	0	76,392	22,806	298,505
2081	298,505	0	64,722	19,336	253,119
2082	253,119	0	54,829	16,398	214,689
2083	214,689	0	46,481	13,909	182,117
2084	182,117	0	39,452	11,798	154,464
2085	154,464	0	33,539	10,004	130,929
2086	130,929	0	28,562	8,475	110,842
2087	110,842	0	24,363	7,168	93,648
2088	93,648	0	20,807	6,048	78,890
2089	78,890	0	17,782	5,086	66,193
2090	66,193	0	15,196	4,258	55,255
2091	55,255	0	12,970	3,544	45,829
2092	45,829	0	11,042	2,929	37,717
2093	37,717	0	9,361	2,401	30,756
2094	30,756	0	7,889	1,949	24,816
2095	24,816	0	6,598	1,564	19,782
2096	19,782	0	5,466	1,240	15,555
2097	15,555	0	4,476	968	12,048
2098	12,048	0	3,616	745	9,176
2099	9,176	0	2,877	563	6,862
2100	6,862	0	2,250	417	5,030
2101	5,030	0	1,725	303	3,608
2102	3,608	0	1,295	215	2,529
2103	2,529	0	949	150	1,729
2104	1,729	0	678	101	1,152
2105	1,152	0	472	67	746
2106	746	0	319	43	470
2107	470	0	209	27	287
2108	287	0	133	16	170
2109	170	0	82	9	98
2110	98	0	49	5	55
2111	55	0	28	3	30
2112	30	0	15	2	16
2113	16	0	8	1	8
2114	8	0	4	0	5
2115	5	0	2	0	3
2116	3	0	1	0	2
2117	2	0	0	0	2
2118	2	0	0	0	1
2119	1	0	0	0	1
2120	1	0	0	0	1
2121	1	0	0	0	2
2122	2	0	0	0	2



### **Single Discount Rate Development Present Values of Projected Benefits**

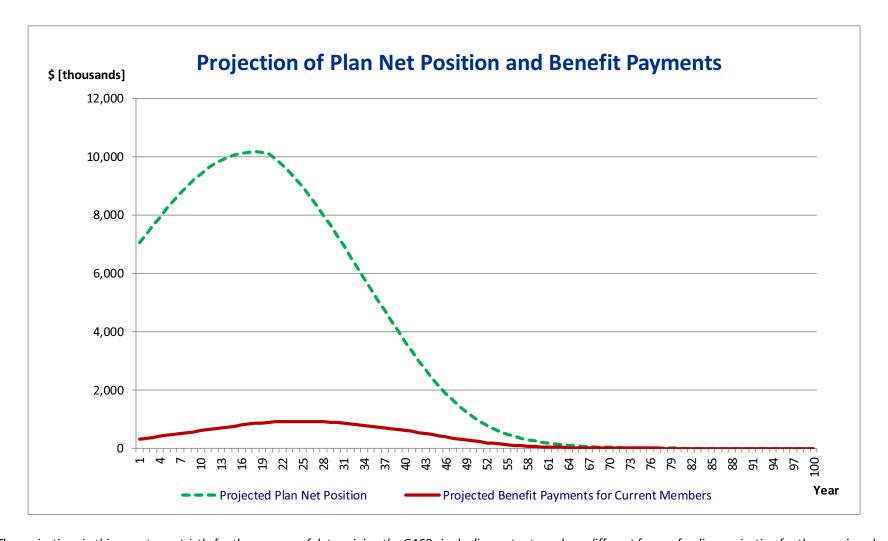
										sent Value of nded Benefit	Present Value of Unfunded Benefit	Present Value of Benefit
		Projected					111	nfunded Portion		yments using	Payments using	Payments using
	Reg	•	Dr	rojected Benefit	Fur	nded Portion of	0	of Benefit		ected Return	Municipal Bond	Single Discount
Year	БСБ	Position	•	Payments		nefit Payments		Payments	LAP	Rate (v)	Rate (vf)	Rate (sdr)
(a)		(b)		(c)		(d)		(e)	(f)	=(d)*v^((a)5)	(g)=(e)*vf ^((a)5)	(h)=(c)/(1+sdr)^(a5)
2023	\$		\$		\$	317,227	Ś	0	\$			\$ 306,317
2024	•	7,071,860	,	348,365	,	348,365	,	0	,	313,645	0	313,645
2025		7,368,875		385,240		385,240		0		323,399	0	323,399
2026		7,656,097		420,841		420,841		0		329,403	0	329,403
2027		7,937,735		446,509		446,509		0		325,869	0	325,869
2028		8,226,617		477,555		477,555		0		324,966	0	324,966
2029		8,502,010		509,687		509,687		0		323,386	0	323,386
2030		8,761,707		540,058		540,058		0		319,492	0	319,492
2031		9,006,372		577,173		577,173		0		318,368	0	318,368
2032		9,228,241		611,636		611,636		0		314,571	0	314,571
2033		9,428,569		643,613		643,613		0		308,641	0	308,641
2034		9,608,000		676,905		676,905		0		302,663	0	302,663
2035		9,763,621		711,658		711,658		0		296,691	0	296,691
2036		9,892,185		739,482		739,482		0		287,451	0	287,451
2037		9,999,405		768,487		768,487		0		278,532	0	278,532
2038		10,083,292		798,518		798,518		0		269,853	0	269,853
2039		10,140,912		826,258		826,258		0		260,352	0	260,352
2040		10,172,770		852,639		852,639		0		250,503	0	250,503
2041		10,178,732		877,334		877,334		0		240,334	0	240,334
2042		10,158,855		896,432		896,432		0		228,965	0	228,965
2043		10,117,232		908,326		908,326		0		216,320	0	216,320
2044		9,929,943		916,437		916,437		0		203,498	0	203,498
2045		9,718,186		921,348		921,348		0		190,759	0	190,759
2046		9,483,797		923,964		923,964		0		178,369	0	178,369
2047		9,227,745		926,833		926,833		0		166,828	0	166,828
2048		8,948,036		925,442		925,442		0		155,317	0	155,317
2049		8,647,359		918,864		918,864		0		143,788	0	143,788
2050		8,330,041		907,971		907,971		0		132,479	0	132,479
2051		7,999,754		897,168		897,168		0		122,054	0	122,054
2052		7,655,464		882,321		882,321		0		111,920	0	111,920
2053		7,300,474		863,813		863,813		0		102,165	0	102,165
2054		6,938,106		844,102		844,102		0		93,085	0	93,085
2055		6,569,262		821,701		821,701		0		84,489	0	84,489
2056		6,196,483		795,873		795,873		0		76,302	0	76,302
2057		5,823,128		767,065		767,065		0		68,569	0	68,569
2058		5,452,364		736,273		736,273		0		61,367	0	61,367
2059		5,086,526		704,406		704,406		0		54,742	0	54,742
2060		4,727,126		678,840		678,840		0		49,189	0	49,189
2061		4,367,682		650,000		650,000		0		43,915	0	43,915
2062		4,011,459		615,871		615,871		0		38,797	0	38,797
2063		3,664,586		580,190		580,190		0		34,078	0	34,078
2064		3,329,458		543,554		543,554		0		29,768	0	29,768
2065		3,007,960		506,589		506,589		0		25,868	0	25,868
2066		2,701,419		469,083		469,083		0		22,334	0	22,334
2067		2,411,482		431,255		431,255		0		19,145	0	19,145
2068		2,139,699		393,602		393,602		0		16,292	0	16,292
2069		1,887,207		356,537		356,537		0		13,760	0	13,760
2070		1,654,794		320,493		320,493		0		11,533	0	11,533
2071		1,442,859		285,892		285,892		0		9,593	0	9,593
2072		1,251,393		253,105		253,105		0		7,918	0	7,918



### **Single Discount Rate Development Present Values of Projected Benefits (Concluded)**

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)5)	(g)=(e)*vf ^((a)5)	(h)=(c)/(1+sdr)^(a5)
2073	\$ 1,079,999	\$ 222,447	\$ 222,447	\$ 0	\$ 6,489	\$ 0	\$ 6,489
2074	927,929	194,138	194,138	0	5,280	0	5,280
2075	794,151	168,302	168,302	0	4,268	0	4,268
2076	677,431	144,999	144,999	0	3,429	0	3,429
2077	576,381	124,237	124,237	0	2,739	0	2,739
2078	489,507	105,962	105,962	0	2,178	0	2,178
2079	415,260	90,068	90,068	0	1,726	0	1,726
2080	352,090	76,392	76,392	0	1,365	0	1,365
2081	298,505	64,722	64,722	0	1,078	0	1,078
2082	253,119	54,829	54,829	0	852	0	852
2083	214,689	46,481	46,481	0	673	0	673
2084	182,117	39,452	39,452	0	533	0	533
2085	154,464	33,539	33,539	0	422	0	422
2086	130,929	28,562	28,562	0	335	0	335
2087	110,842	24,363	24,363	0	267	0	267
2088	93,648	20,807	20,807	0	212	0	212
2089	78,890	17,782	17,782	0	169	0	169
2090	66,193	15,196	15,196	0	135	0	135
2091	55,255	12,970	12,970	0	107	0	107
2092	45,829	11,042	11,042	0	85	0	85
2093	37,717	9,361	9,361	0	67	0	67
2094	30,756	7,889	7,889	0	53	0	53
2095	24,816	6,598	6,598	0	41	0	41
2096	19,782	5,466	5,466	0	32	0	32
2097	15,555	4,476	4,476	0	24	0	24
2098	12,048	3,616	3,616	0	18	0	18
2099	9,176	2,877	2,877	0	14	0	14
2100	6,862	2,250	2,250	0	10	0	10
2101	5,030	1,725	1,725	0	7	0	7
2101	3,608	1,295	1,295	0	5	0	5
2102	2,529	949	949	0	3	0	3
2103	1,729	678	678	0	2	0	2
2104		472	472	0	1	0	1
2105	1,152 746	319	319	0	1	0	1
2107	470	209	209	0	1	0	1
2107	287	133	133	0	0	0	0
				· ·	0	· ·	· ·
2109 2110	170 98	82 49	82 49	0	0	0	0
	55	28	28				
2111	30	15	15	0	0	0	0
<ul><li>2112</li><li>2113</li></ul>		8		0	0	0	0
	16		8	0		0	
2114	8	4	4	0	0	0	0
2115	5	2	2	0	0	0	0
2116	3	1	1	0	0	0	0
2117	2	0	0	0	0	0	0
2118	2	0	0	0	0	0	0
2119	1	0	0	0	0	0	0
2120	1	0	0	0	0	0	0
<ul><li>2121</li><li>2122</li></ul>	1 2	0	0	0	0	0	0







### **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)**

GASB The Governmental Accounting Standards Board is an organization that exists

in order to promulgate accounting standards for governmental entities.

Fiduciary Net Position The fiduciary net position is the value of the assets of the trust.

Long-Term Expected Rate of Return

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.

Money-Weighted Rate of Return

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.

Multiple-Employer Defined Benefit Pension Plan A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

Municipal Bond Rate 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.

**Net Pension Liability (NPL)**The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.

Non-Employer Contribution Entities

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.

**Normal Cost**The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

Other Postemployment Benefits (OPEB)

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 postemployment benefits do not include termination benefits.

**Real Rate of Return**The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

**Service Cost**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.

