Acorn Pub Lib Dist Regular

GASB Statement No. 68 Employer Reporting Accounting Schedules
December 31, 2017



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April 6, 2018

Acorn Pub Lib 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 Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the Acorn Pub Lib Dist only in its entirety and only with the permission of Acorn Pub Lib Dist. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by 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 Illinois Municipal Retirement Fund and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 2017 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 68 information related to Acorn Pub Lib 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. 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 herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Mark Buis, FSA, EA, FCA, MAAA

Francois Pieterse, ASA, FCA, MAAA

SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2017

Actuarial Valuation Date	December 31, 2017		
Measurement Date of the Net Pension Liability	December 31, 2017		
Fiscal Year End	Jui	ne 30, 2018	
Membership			
Number of			
- Retirees and Beneficiaries		23	
- Inactive, Non-Retired Members		15	
- Active Members		14	
- Total		52	
Covered Valuation Payroll ⁽¹⁾	\$	454,471	
Net Pension Liability			
Total Pension Liability/(Asset)	\$	2,996,700	
Plan Fiduciary Net Position		3,019,424	
Net Pension Liability/(Asset)	\$	(22,724)	
Plan Fiduciary Net Position as a Percentage			
of Total Pension Liability		100.76%	
Net Pension Liability as a Percentage			
of Covered Valuation Payroll		(5.00)%	
Development of the Single Discount Rate as of December 31, 2017			
Long-Term Expected Rate of Investment Return		7.50%	
Long-Term Municipal Bond Rate ⁽²⁾		3.31%	
Last year ending December 31 in the 2018 to 2117 projection period			
for which projected benefit payments are fully funded		2117	
Resulting Single Discount Rate based on the above development		7.50%	
Single Discount Rate calculated using December 31, 2016 Measurement Date		7.50%	
Total Pension Expense/(Income)	\$	9,374	

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

	 red Outflows Resources	 Resources
Difference between expected and actual experience	\$ 19,453	\$ 11,482
Changes in assumptions	0	66,464
Net difference between projected and actual earnings		
on pension plan investments	 90,368	240,738
Total	\$ 109,821	\$ 318,684

⁽¹⁾ Does not necessarily represent Covered Employee Payroll as defined in GASB Statement Nos. 67-68.

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 29, 2017. 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.



⁽²⁾ Source:

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, 2017.

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 - B-5 of the December 31, 2017 Annual Actuarial Valuation report dated March 22, 2018);
- 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 10);
- significant assumptions and methods used to calculate the total pension liability (page 15);
- inputs to the single discount rate (page 16);
- certain information about mortality assumptions and the dates of experience studies (page 13 and page 15);
- 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 13 and 15);
- 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, 2017 Annual Actuarial Valuation report dated March 22, 2018, as well as page 13);
- 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 10);
- 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 10); 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 11);
- 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 11); and
- comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy (page 12).

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 employer's prior fiscal year-end date. 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, 2017 and a measurement date of December 31, 2017.

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 7.50%; the municipal bond rate is 3.31% (based on the daily rate closest to but not later than the measurement date of the "20-Bond Go Index" described on page 1 and the resulting Single Discount Rate is 7.50%.



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 7.50% 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 2117 and a discount rate of 7.50%. 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 of transferring the obligations to a 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, 2017

A. Expense/(Income)

9. Total Pension Expense/(Income)	\$ 9,374
8. Recognition of Outflow (Inflow) of Resources due to Assets	 (13,104)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities	(61,339)
6. Other Changes in Plan Fiduciary Net Position	42,444
5. Projected Earnings on Plan Investments (made negative for addition here)	(194,935)
4. Employee Contributions (made negative for addition here)	(20,451)
3. Current-Period Benefit Changes	0
2. Interest on the Total Pension Liability	218,832
1. Service Cost	\$ 37,927



Statement of Outflows and Inflows Arising from Current Reporting Period Calendar Year Ended December 31, 2017

A. Outflows (Inflows) of Resources due to Liabilities	
1. Difference between expected and actual experience	
of the Total Pension Liability (gains) or losses	\$ 29,024
2. Assumption Changes (gains) or losses	\$ (97,780)
3. Recognition period for Liabilities: Average of the	
expected remaining service lives of all employees {in years}	3.0324
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	\$ 9,571
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for	
Assumption Changes	\$ (32,245)
6. Outflow (Inflow) of Resources to be recognized in the current pension expense	
due to Liabilities	\$ (22,674)
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	\$ 19,453
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for	
Assumption Changes	\$ (65,535)
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses	
due to Liabilities	\$ (46,082)
B. Outflows (Inflows) of Resources due to Assets	
1. Net difference between projected and actual earnings on	
pension plan investments (gains) or losses	\$ (300,923)
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	\$ (60,185)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses	
due to Assets	\$ (240,738)

^{*} 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, 2017

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

		Outflows		Inflows		Net Outflows	
		of Resources		of Resources			
1. Due to Liabilities	\$	9,571	\$	70,910	\$	(61,339)	
2. Due to Assets		47,081		60,185		(13,104)	
3. Total	\$	56,652	\$	131,095	\$	(74,443)	

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

	Outflows			Inflows of Resources		Net Outflows	
	of	of Resources				f Resources	
1. Differences between expected and actual experience	\$	9,571	\$	36,532	\$	(26,961)	
2. Assumption changes		0		34,378	\$	(34,378)	
3. Net difference between projected and actual							
earnings on pension plan investments		47,081		60,185		(13,104)	
4. Total	\$	56,652	\$	131,095	\$	(74,443)	

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

	Deferred Outflows		Defe	Deferred Inflows		Net Deferred Outflows	
	of Resources		of Resources		of Resources		
1. Differences between expected and actual experience	\$	19,453	\$	11,482	\$	7,971	
2. Assumption changes		0		66,464	\$	(66,464)	
3. Net difference between projected and actual							
earnings on pension plan investments		90,368		240,738		(150,370)	
4. Total	\$	109,821	\$	318,684	\$	(208,863)	

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				
2018	\$ (48,188)				
2019	(42,787)				
2020	(57,705)				
2021	(60,183)				
2022	0				
Thereafter	0				
Total	\$ (208,863)				



Schedule of Changes in Net Pension Liability and Related Ratios Current Period Calendar Year Ended December 31, 2017

A. Total pension liability	
1. Service Cost	\$ 37,927
2. Interest on the Total Pension Liability	218,832
3. Changes of benefit terms	0
 Difference between expected and actual experience of the Total Pension Liability 	29,024
5. Changes of assumptions	(97,780)
6. Benefit payments, including refunds	
of employee contributions	(180,191)
7. Net change in total pension liability	\$ 7,812
8. Total pension liability – beginning	2,988,888
9. Total pension liability – ending	\$ 2,996,700
B. Plan fiduciary net position	
1. Contributions – employer	\$ 51,037
2. Contributions – employee	20,451
3. Net investment income	495,858
4. Benefit payments, including refunds	
of employee contributions	(180,191)
5. Other (Net Transfer)	(42,444)
6. Net change in plan fiduciary net position	\$ 344,711
7. Plan fiduciary net position – beginning	 2,674,713
8. Plan fiduciary net position – ending	\$ 3,019,424
C. Net pension liability/(asset)	\$ (22,724)
D. Plan fiduciary net position as a percentage	
of the total pension liability	100.76%
E. Covered Valuation payroll	\$ 454,471
F. Net pension liability as a percentage	
of covered valuation payroll	(5.00)%

Sensitivity of Net Pension Liability/(Asset) to the Single Discount Rate Assumption

Current Single Discount Rate Assumption 1% Decrease 1% Increase 6.50% 7.50% 8.50% Total Pension Liability \$ \$ 2,996,700 \$ 3,332,783 2,718,088 Plan Fiduciary Net Position 3,019,424 3,019,424 3,019,424 Net Pension Liability/(Asset) \$ 313,359 (22,724)\$ (301,336)



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,	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Pension Liability										
Service Cost	\$ 37,927	41,320	\$ 45,113 \$	45,510						
Interest on the Total Pension Liability	218,832	216,262	215,370	204,264						
Benefit Changes	0	0	0	0						
Difference between Expected and Actual Experience	29,024	(39,542)	(73,747)	(74,938)						
Assumption Changes	(97,780)	(3,199)	(3,272)	137,945						
Benefit Payments and Refunds	(180,191)	(185,261)	(161,747)	(151,901)						
Net Change in Total Pension Liability	7,812	29,580	21,717	160,880						
Total Pension Liability - Beginning	2,988,888	2,959,308	2,937,591	2,776,711						
Total Pension Liability - Ending (a)	\$ 2,996,700	2,988,888	\$ 2,959,308 \$	2,937,591						
Plan Fiduciary Net Position										
Employer Contributions	\$ 51,037 \$	54,067	\$ 55,364 \$	60,939						
Employee Contributions	20,451	18,279	17,682	18,137						
Pension Plan Net Investment Income	495,858	176,177	13,009	155,067						
Benefit Payments and Refunds	(180,191)	(185,261)	(161,747)	(151,901)						
Other	(42,444)	(16,718)	57,736	(14,609)						
Net Change in Plan Fiduciary Net Position	344,711	46,544	(17,956)	67,633						
Plan Fiduciary Net Position - Beginning	2,674,713	2,628,169	2,646,125	2,578,492						
Plan Fiduciary Net Position - Ending (b)	\$ 3,019,424 \$	2,674,713	\$ 2,628,169 \$	2,646,125						
Net Pension Liability/(Asset) - Ending (a) - (b)	(22,724)	314,175	331,139	291,466						
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	100.76%	89.49%	88.81%	90.08%						
Covered Valuation Payroll	\$ 454,471 \$	406,209	\$ 392,931 \$	405,722						
Net Pension Liability as a Percentage										
of Covered Valuation Payroll	(5.00)%	77.34%	84.27%	71.84%						



Multiyear Schedule of Contributions

Last 10 Calendar Years

Calendar Year Ending December 31,	Det	tuarially termined tribution		Actual ntribution	Def	ribution iciency kcess)	y Valuation		Actual Contribution as a % of Covered Valuation Payroll
2014	\$	61,345	\$	60,939	\$	406	\$	405,722	15.02%
2015		55,364		55,364		0		392,931	14.09%
2016		54,066		54,067		(1)		406,209	13.31%
2017		51,037	*	51,037		0		454,471	11.23%

^{*} Estimated based on contribution rate of 11.23% and covered valuation payroll of \$454,471.



Notes to Schedule of Contributions

Summary of Actuarial Methods and Assumptions Used in the Calculation of the 2017 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 fiscal year in

which contributions are reported.

Methods and Assumptions Used to Determine 2017 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): 26-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 21 years for most employers (two employers were financed over 30

years).

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

Wage growth 3.50%

Price Inflation 2.75% -- approximate; No explicit price inflation assumption is used in this

valuation.

Salary Increases 3.75% to 14.50% including inflation

Investment Rate of Return 7.50%

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

condition. Last updated for the 2014 valuation pursuant to an experience

study of the period 2011-2013.

Mortality For non-disabled retirees, an IMRF specific mortality table was used with

fully generational projection scale MP-2014 (base year 2012). The IMRF specific rates were developed from the RP-2014 Blue Collar Health Annuitant Mortality Table with adjustments to match current IMRF experience. For disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2012). The IMRF specific rates were developed from the RP-2014 Disabled Retirees Mortality Table applying the same adjustment that were applied for non-disabled lives. For active members, an IMRF specific mortality table was used with fully

generational projection scale MP-2014 (base year 2012). 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, 2015 actuarial valuation

Development of Market Value of Assets

Market Value of Assets as of December 31, 2017

5. Net Market Value	\$ 3,019,424
4. Miscellaneous Adjustment*	\$ (248)
3. Annuitant Reserve	\$ 1,860,767
2. Employer Contribution Reserve (EAF assets from IMRF)	\$ 824,959
1. Employee Contribution Reserve (MDF Assets from IMRF)	\$ 333,946

^{*} Includes an adjustment factor of (0.0000820765) on Items 1 through 3 to ensure that Market Value of Assets for all employers balances 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	\$ 51,037
b.) Accelerated payments and Reserve Payments	-
	\$ 51,037
2. Member	
a.) Wage Reporting	\$ 20,451
b.) Member Payments (i.e. ERI, Pension Payments)	 -
Sub-total (Amount used for valuation on Schedule of Changes Page 10)	\$ 20,451
c.) Voluntary Additional Plan	\$ 273
Total Member Contributions (a+b+c)	\$ 20,724
Total Employer and Member Contributions (1+2)	\$ 71,761



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 2.50%

Salary Increases 3.39% to 14.25%

Investment Rate of Return 7.50%

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, an IMRF specific mortality table was used with

fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Blue Collar Health Annuitant Mortality Table with adjustments to match current IMRF experience. For disabled retirees, an IMRF specific mortality table was 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 adjustment that were applied for non-disabled lives. For active members, an IMRF specific mortality table was 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.

A detailed description of the actuarial assumptions and methods can be found in the December 31, 2017 Illinois Municipal Retirement Fund annual actuarial valuation report.





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 (which is published by the Federal Reserve) 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 7.50%; the municipal bond rate is 3.31%; and the resulting single discount rate is 7.50%.

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 and future 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 Single Discount Rate (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

	•	Contributions from	Normal Cost	UAL	
Year	Employees	Current Employees	Contributions	Contributions	Total Contributions
2017	\$ 454,471				
2018	467,208	\$ 21,024	\$ 27,236	\$ 8,784	\$ 57,044
2019	439,806	19,791	21,252	5,926	46,969
2020	420,235	18,911	20,181	2,688	41,780
2021	406,348	18,286	19,595	(976)	36,904
2022	397,302	17,879	19,198	(5,120)	31,956
2023	389,840	17,543	18,876	(5,248)	31,171
2024	383,972	17,279	18,592	(5,379)	30,491
2025	377,904	17,006	18,260	(5,513)	29,753
2026	371,257	16,707	17,939	(5,651)	28,995
2027	363,672	16,365	17,537	(5,793)	28,109
2028	353,351	15,901	17,004	(5,937)	26,968
2029	343,681	15,466	16,505	(6,086)	25,885
2030	335,123	15,081	16,061	(6,238)	24,903
2031	327,225	14,725	15,618	(6,394)	23,949
2032	321,312	14,459	15,272	(6,554)	23,177
2033	316,338	14,235	14,942	(6,718)	22,459
2034	310,754	13,984	14,617	(6,885)	21,716
2035	305,327	13,740	14,271	(7,058)	20,953
2036	300,736	13,533	13,967	(7,234)	20,267
2037	296,552	13,345	13,685	(7,415)	19,615
2038	289,196	13,014	13,260	(7,600)	18,674
2039	280,015	12,601	12,701	(7,790)	17,512
2040	273,758	12,319	12,282	(7,985)	16,616
2041	266,580	11,996	11,881	(8,185)	15,692
2042	259,224	11,665	11,451	(8,389)	14,727
2043	253,770	11,420	11,084	0	22,504
2044	242,915	10,931	10,514	0	21,446
2045	224,210	10,089	9,638	0	19,728
2046	206,344	9,286	8,768	0	18,054
2047	192,529	8,664	8,029	0	16,693
2048	169,424	7,624	6,965	0	14,589
2049	134,506	6,053	5,490	0	11,543
2050	100,663	4,530	4,138	0	8,668
2051	68,517	3,083	2,871	0	5,954
2052	46,837	2,108	2,037	0	4,144
2053	34,928	1,572	1,574	0	3,146
2054	24,966	1,123	1,150	0	2,273
2055	16,198	729	767	0	1,496
2056	8,117	365	398	0	763
2057	5,228	235	289	0	524
2058	3,870	174	229	0	404
2059	2,749	124	168	0	292
2060	1,921	86	117	0	203
2061	1,550	70	95	0	165
2062	1,239	56	76	0	131
2063	986	44	60	0	105
2064	792	36	48	0	84
2065	631	28	39	0	68
2066	502	23	31	0	53
2067	399	18	24	0	42



Single Discount Rate Development Projection of Contributions (Concluded)

	Payroll for Current	Contributions from	Normal Cost	UAL		
Year	Employees	Current Employees	Contributions	Contributions	Total Contributions	
2068	\$ 317	\$ 14	\$ 19	\$ 0	\$ 33	
2069	144	6	8	0	15	
2070	0	0	0	0	0	
2071	0	0	0	0	0	
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 2082	0	0	0	0	0	
2082	0	0	0	0	0	
2083	0	0	0	0	0	
2084	0	0	0	0	0	
2083	0	0	0	0	0	
2080	0	0	0	0	0	
2088	0	0	0	0	0	
2088	0	0	0	0	0	
2089	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	



Single Discount Rate Development Projection of Plan Fiduciary Net Position

				Projected	
Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Investment Earnings at 7.50%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2018	\$ 3,019,424	\$ 57,044	\$ 195,841	\$ 221,346	\$ 3,101,974
2019	3,101,974	46,969	208,147	226,713	3,167,509
2020	3,167,509	41,780	216,977	231,112	3,223,425
2021	3,223,425	36,905	222,170	234,935	3,273,095
2022	3,273,095	31,957	227,172	238,294	3,316,174
2023	3,316,174	31,171	233,489	241,263	3,355,120
2024	3,355,120	30,491	238,013	243,993	3,391,590
2025	3,391,590	29,753	240,772	246,599	3,427,170
2026	3,427,170	28,995	242,508	249,176	3,462,832
2027	3,462,832	28,110	244,383	251,749	3,498,307
2028	3,498,307	26,968	246,324	254,296	3,533,247
2029	3,533,247	25,885	247,688	256,826	3,568,270
2030	3,568,270	24,904	248,710	259,379	3,603,842
2031	3,603,842	23,949	253,787	261,825	3,635,830
2032	3,635,830	23,177	253,797	264,195	3,669,405
2033	3,669,405	22,460	251,668	266,765	3,706,963
2034	3,706,963	21,715	254,335	269,457	3,743,800
2035	3,743,800	20,953	256,636	272,107	3,780,224
2036	3,780,224	20,266	253,281	274,937	3,822,146
2037	3,822,146	19,615	252,351	278,091	3,867,501
2038	3,867,501	18,674	257,031	281,286	3,910,429
2039	3,910,429	17,511	254,276	284,564	3,958,228
2040	3,958,228	16,616	250,295	288,263	4,012,812
2041	4,012,812	15,692	248,512	292,388	4,072,380
2042	4,072,380	14,726	245,414	296,934	4,138,628
2043	4,138,628	22,504	240,917	302,355	4,222,569
2044	4,222,569	21,446	252,617	308,180	4,299,578
2045	4,299,578	19,728	267,907	313,330	4,364,729
2046	4,364,729	18,054	270,931	318,043	4,429,895
2047	4,429,895	16,693	275,046	322,729	4,494,271
2048	4,494,271	14,589	288,341	326,990	4,547,509
2049	4,547,509	11,543	314,424	329,910	4,574,538
2050	4,574,538	8,668	345,331	330,694	4,568,569
2051	4,568,569	5,954	373,258	329,118	4,530,383
2052	4,530,383	4,144	386,223	325,710	4,474,015
2053	4,474,015	3,146	391,351	321,257	4,407,066
2054	4,407,066	2,273	393,379	316,129	4,332,088
2055	4,332,088	1,496	400,038	310,231	4,243,777
2056	4,243,777	763	404,186	303,428	4,143,782
2057	4,143,782	524	401,826	296,007	4,038,487
2058	4,038,487	404	398,638	288,223	3,928,475
2059	3,928,475	292	395,578	280,080	3,813,270
2060	3,813,270	203	391,697	271,580	3,693,356
2061	3,693,356	165	387,238	262,749	3,569,032
2062	3,569,032	131	382,325	253,604	3,440,442
2063	3,440,442	105	376,905	244,159	3,307,801
2064	3,307,801	84	370,962	234,429	3,171,352
2065	3,171,352	68	364,454	224,434	3,031,399
2066	3,031,399	53	357,343	214,199	2,888,308
2067	2,888,308	42	349,593	203,752	2,742,509



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

				Projected	
Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Investment Earnings at 7.50%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2068	\$ 2,742,509	\$ 33	\$ 341,171	\$ 193,127	\$ 2,594,498
2069	2,594,498	15	332,297	182,352	2,444,568
2070	2,444,568	0	322,504	171,467	2,293,531
2071	2,293,531	0	311,891	160,530	2,142,171
2072	2,142,171	0	300,571	149,595	1,991,195
2073	1,991,195	0	288,557	138,714	1,841,353
2074	1,841,353	0	275,878	127,943	1,693,418
2075	1,693,418	0	262,560	117,338	1,548,197
2076	1,548,197	0	248,630	106,960	1,406,526
2077	1,406,526	0	234,143	96,868	1,269,251
2078	1,269,251	0	219,177	87,123	1,137,197
2079	1,137,197	0	203,836	77,784	1,011,145
2080	1,011,145	0	188,258	68,904	891,791
2081	891,791	0	172,593	60,529	779,727
2082	779,727	0	156,997	52,699	675,429
2083	675,429	0	141,629	45,442	579,242
2084	579,242	0	126,634	38,780	491,389
2085	491,389	0	112,131	32,725	411,984
2086	411,984	0	98,220	27,282	341,046
2087	341,046	0	85,009	22,448	278,486
2088	278,486	0	72,609	18,213	224,089
2089	224,089	0	61,136	14,556	177,509
2090	177,509	0	50,684	11,447	138,272
2091	138,272	0	41,318	8,849	105,803
2092	105,803	0	33,073	6,717	79,447
2093	79,447	0	25,966	5,002	58,484
2094	58,484	0	19,975	3,651	42,160
2095	42,160	0	15,037	2,608	29,731
2096	29,731	0	11,062	1,822	20,491
2097	20,491	0	7,944	1,244	13,792
2098	13,792	0	5,567	829	9,054
2099	9,054	0	3,801	539	5,792
2100	5,792	0	2,526	341	3,608
2101	3,608	0	1,631	211	2,187
2102	2,187	0	1,024	126	1,289
2103	1,289	0	625	74	738
2104	738	0	370	42	409
2105	409	0	213	23	220
2106	220	0	119	12	113
2107	113	0	64	6	56
2108	56	0	33	3	26
2109	26	0	16	1	12
2110	12	0	7	1	5
2111	5	0	3	0	2
2112	2	0	2	0	1
2113	1	0	1	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



Single Discount Rate Development Present Values of Projected Benefits

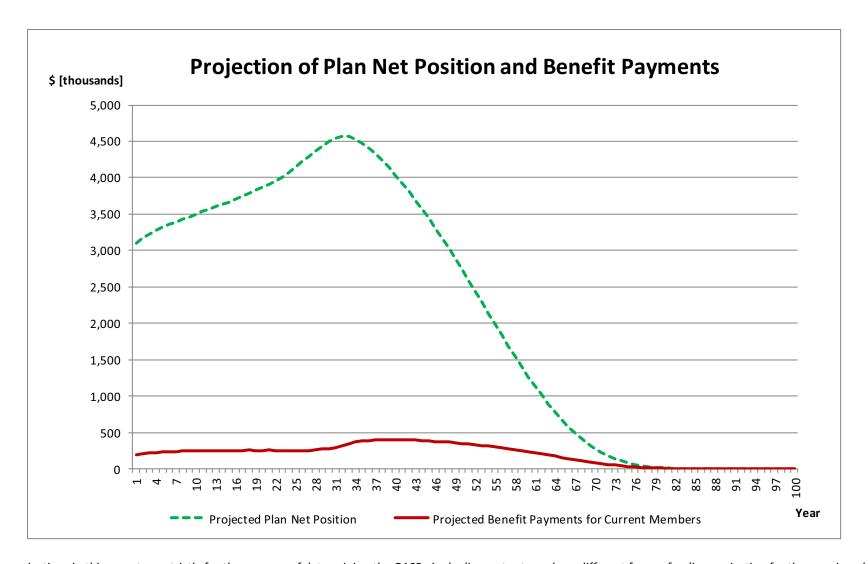
Year	Beg	Projected ginning Plan Net Position	Pr	rojected Benefit Payments		inded Portion of enefit Payments	Uı	nfunded Portion of Benefit Payments	F P	resent Value of Funded Benefit Payments using Repected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)		(b)		(c)		(d)		(e)	(f	f)=(d)*v^((a)5)	(g)=(e)*vf ^((a)5)	(h)=(c)/(1+s dr)^(a5)
2018	\$	3,019,424	Ś	195,841	Ś	195,841	Ś	0			\$ 0	\$ 188,885
2019	·	3,101,974	•	208,147		208,147	Ċ	0	·	186,748	0	186,748
2020		3,167,509		216,977		216,977		0		181,089	0	181,089
2021		3,223,425		222,170		222,170		0		172,486	0	172,486
2022		3,273,095		227,172		227,172		0		164,065	0	164,065
2023		3,316,174		233,489		233,489		0		156,862	0	156,862
2024		3,355,120		238,013		238,013		0		148,746	0	148,746
2025		3,391,590		240,772		240,772		0		139,973	0	139,973
2026		3,427,170		242,508		242,508		0		131,146	0	131,146
2027		3,462,832		244,383		244,383		0		122,939	0	122,939
2028		3,498,307		246,324		246,324		0		115,271	0	115,271
2029		3,533,247		247,688		247,688		0		107,822	0	107,822
2030		3,568,270		248,710		248,710		0		100,713	0	100,713
2031		3,603,842		253,787		253,787		0		95,599	0	95,599
2032		3,635,830		253,797		253,797		0		88,933	0	88,933
2033		3,669,405		251,668		251,668		0		82,034	0	82,034
2034		3,706,963		254,335		254,335		0		77,120	0	77,120
2035		3,743,800		256,636		256,636		0		72,388	0	72,388
2036		3,780,224		253,281		253,281		0		66,458	0	66,458
2037		3,822,146		252,351		252,351		0		61,594	0	61,594
2038		3,867,501		257,031		257,031		0		58,360	0	58,360
2039		3,910,429		254,276		254,276		0		53,706	0	53,706
2040		3,958,228		250,295		250,295		0		49,177	0	49,177
2041		4,012,812		248,512		248,512		0		45,420	0	45,420
2042		4,072,380		245,414		245,414		0		41,725	0	41,725
2043		4,138,628		240,917		240,917		0		38,102	0	38,102
2044		4,222,569		252,617		252,617		0		37,165	0	37,165
2045		4,299,578		267,907		267,907		0		36,665	0	36,665
2046		4,364,729		270,931		270,931		0		34,492	0	34,492
2047		4,429,895		275,046		275,046		0		32,573	0	32,573
2048		4,494,271		288,341		288,341		0		31,765	0	31,765
2049		4,547,509		314,424		314,424		0		32,222	0	32,222
2050		4,574,538		345,331		345,331		0		32,920	0	32,920
2051		4,568,569		373,258		373,258		0		33,100	0	33,100
2052		4,530,383		386,223		386,223		0		31,860	0	31,860
2053		4,474,015		391,351		391,351		0		30,031	0	30,031
2054		4,407,066		393,379		393,379		0		28,080	0	28,080
2055		4,332,088		400,038		400,038		0		26,563	0	26,563
2056		4,243,777		404,186		404,186		0		24,966	0	24,966
2057		4,143,782		401,826		401,826		0		23,089	0	23,089
2058		4,038,487		398,638		398,638		0		21,308	0	21,308
2059		3,928,475		395,578		395,578		0		19,669	0	19,669
2060		3,813,270		391,697		391,697		0		18,117	0	18,117
2061		3,693,356		387,238		387,238		0		16,661	0	16,661
2062		3,569,032		382,325		382,325		0		15,302	0	15,302
2063		3,440,442		376,905		376,905		0		14,033	0	14,033
2064		3,307,801		370,962		370,962		0		12,848	0	12,848
2065		3,171,352		364,454		364,454		0		11,742	0	11,742
2066		3,031,399		357,343		357,343		0		10,710	0	10,710
2067		2,888,308		349,593		349,593		0		9,746	0	9,746



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)
2068		\$ 341,171			\$ 8,848	\$ 0	\$ 8,848
2069	2,594,498	332,297	332,297	0	8,017	0	8,017
2070	2,444,568	322,504	322,504	0	7,238	0	7,238
2071	2,293,531	311,891	311,891	0	6,511	0	6,511
2072	2,142,171	300,571	300,571	0	5,837	0	5,837
2073	1,991,195	288,557	288,557	0	5,213	0	5,213
2074	1,841,353	275,878	275,878	0	4,636	0	4,636
2075	1,693,418	262,560	262,560	0	4,104	0	4,104
2076	1,548,197	248,630	248,630	0	3,615	0	3,615
2077	1,406,526	234,143	234,143	0	3,167	0	3,167
2078	1,269,251	219,177	219,177	0	2,758	0	2,758
2079	1,137,197	203,836	203,836	0	2,386	0	2,386
2080	1,011,145	188,258	188,258	0	2,050	0	2,050
2081	891,791	172,593	172,593	0	1,748	0	1,748
2082	779,727	156,997	156,997	0	1,479	0	1,479
2083	675,429	141,629	141,629	0	1,241	0	1,241
2084	579,242	126,634	126,634	0	1,032	0	1,032
2085	491,389	112,131	112,131	0	850	0	850
2086	411,984	98,220	98,220	0	693	0	693
2087	341,046	85,009	85,009	0	558	0	558
2088	278,486	72,609	72,609	0	443	0	443
2089	224,089	61,136	61,136	0	347	0	347
2090	177,509	50,684	50,684	0	268	0	268
2091	138,272	41,318	41,318	0	203	0	203
2092	105,803	33,073	33,073	0	151	0	151
2093	79,447	25,966	25,966	0	110	0	110
2094	58,484	19,975	19,975	0	79	0	79
2095	42,160	15,037	15,037	0	55	0	55
2096	29,731	11,062	11,062	0	38	0	38
2097	20,491	7,944	7,944	0	25	0	25
2098	13,792	5,567	5,567	0	16	0	16
2099	9,054	3,801	3,801	0	10	0	10
2100	5,792	2,526	2,526	0	6	0	6
2101	3,608	1,631	1,631	0	4	0	4
2102	2,187	1,024	1,024	0	2	0	2
2103	1,289	625	625	0	1	0	1
2104	738	370	370	0	1	0	1
2105	409	213	213	0	0	0	0
2106	220	119	119	0	0	0	0
2107	113	64	64	0	0	0	0
2108	56	33	33	0	0	0	0
2109	26	16	16	0	0	0	0
2110	12	7	7	0	0	0	0
2111	5	3	3	0	0	0	0
2112	2	2	2	0	0	0	0
2113	1	1	1	0	0	0	0
2114	0	0	0	0	0	0	0
2115	0	0	0	0	0	0	0
2116	0	0	0	0	0	0	0
2117	0	0	0	0	0	0	0
				Totals	\$ 3,406,737	\$ -	\$ 3,406,737







SECTION D

GLOSSARY OF **T**ERMS

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 ages(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:

- 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.

