Acorn Pub Lib Dist Regular

GASB Statement No. 68 Employer Reporting Accounting Schedules

December 31, 2019

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March 26, 2020

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 No. 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.

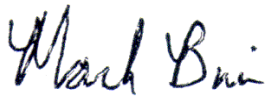
This report is based upon information, furnished to us by the Illinois Municipal Retirement Fund (IMRF), concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different than ours, 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 by us.

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, 2019 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

MB/FP:sc

SECTION A

EXECUTIVE SUMMARY

Executive Summary
as of December 31, 2019

Actuarial Valuation Date	December 31, 2019
Measurement Date of the Net Pension Liability	December 31, 2019
Fiscal Year End	June 30, 2020

Membership

Number of	
- Retirees and Beneficiaries	23
- Inactive, Non-Retired Members	21
- Active Members	13
- Total	57
Covered Valuation Payroll[(1)]	$ 461,956

Net Pension Liability

Total Pension Liability/(Asset)	$ 3,242,288
Plan Fiduciary Net Position	3,211,382
Net Pension Liability/(Asset)	$ 30,906
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	99.05%
Net Pension Liability as a Percentage of Covered Valuation Payroll	6.69%

Development of the Single Discount Rate as of December 31, 2019

Long-Term Expected Rate of Investment Return	7.25%
Long-Term Municipal Bond Rate[(2)]	2.75%
Last year ending December 31 in the 2020 to 2119 projection period for which projected benefit payments are fully funded	2119
Resulting Single Discount Rate based on the above development	7.25%

Single Discount Rate calculated using December 31, 2018 Measurement Date	7.25%

Total Pension Expense/(Income)	$ 16,911

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 33,495	$ 9,407
Changes in assumptions	28,236	1,045
Net difference between projected and actual earnings on pension plan investments	252,491	396,707
Total	$ 314,222	$ 407,159

[(1)] *Does not necessarily represent Covered Employee Payroll as defined in GASB Statement No. 68.*

[(2)] *Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of December 31, 2019. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax exempt securities.*

Discussion

Accounting Standard

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

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

Financial Statements

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

Paragraph 57 of GASB Statement No. 68 says, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to IMRF subsequent to the measurement date of December 31, 2019.

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, 2019 Annual Actuarial Valuation report dated March 13, 2020);
- 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 (page 14 and page 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 pages A-3, B-5 and Section D of the December 31, 2019 Annual Actuarial Valuation report dated March 13, 2020, 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 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, 2019 and a measurement date of December 31, 2019.

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 2.75% (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 the 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 2119 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, of 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, 2019

A. Expense/(Income)		
1. Service Cost	$	45,816
2. Interest on the Total Pension Liability		220,969
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(30,283)
5. Projected Earnings on Plan Investments (made negative for addition here)		(197,457)
6. Other Changes in Plan Fiduciary Net Position		(28,738)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		12,710
8. Recognition of Outflow (Inflow) of Resources due to Assets		(6,106)
9. Total Pension Expense/(Income)	**$**	**16,911**

Recognition of Deferred Outflows and Inflows of Resources

Differences between expected and actual experience and changes in assumptions are recognized in 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 144.58 years. Additionally, the total plan membership (active employees and inactive employees) was 52. 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 2.7805 years.

Additionally, differences between projected and actual earnings on pension plan investments should be recognized in 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, 2019

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	$	51,822
2. Assumption Changes (gains) or losses	$	0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		2.7805
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	$	18,638
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	$	18,638
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	$	33,184
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	$	33,184

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	$	(345,424)
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	$	(69,085)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	$	(276,339)

* *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, 2019

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	$ 53,320	$ 40,610	$ 12,710
2. Due to Assets	123,164	129,270	(6,106)
3. Total	$ 176,484	$ 169,880	$ 6,604

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	$ 28,209	$ 8,365	$ 19,844
2. Assumption changes	25,111	32,245	$ (7,134)
3. Net difference between projected and actual earnings on pension plan investments	123,164	129,270	(6,106)
4. Total	$ 176,484	$ 169,880	$ 6,604

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

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	$ 33,495	$ 9,407	$ 24,088
2. Assumption changes	28,236	1,045	27,191
3. Net difference between projected and actual earnings on pension plan investments	252,491	396,707	(144,216)
4. Total	$ 314,222	$ 407,159	$ (92,937)

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
2020	$ (8,314)
2021	(29,547)
2022	14,008
2023	(69,084)
2024	0
Thereafter	0
Total	$ (92,937)

Recognition of Deferred Outflows and Inflows of Resources
Reporting Date - December 31, 2019

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) due to Differences Between Expected and Actual Experience on Liabilities					
2014	$ (74,938)	2.9405	$ 0	$ 0	0.0000
2015	(73,747)	2.8782	0	0	0.0000
2016	(39,542)	2.8184	0	0	0.0000
2017	29,024	3.0324	9,571	311	0.0324
2018	(26,137)	3.1245	(8,365)	(9,407)	1.1245
2019	51,822	2.7805	18,638	33,184	1.7805
Total			**$ 19,844**	**$ 24,088**	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	$ 137,945	2.9405	$ 0	$ 0	0.0000
2015	(3,272)	2.8782	0	0	0.0000
2016	(3,199)	2.8184	0	0	0.0000
2017	(97,780)	3.0324	(32,245)	(1,045)	0.0324
2018	78,458	3.1245	25,111	28,236	1.1245
2019	0	2.7805	0	0	1.7805
Total			**$ (7,134)**	**$ 27,191**	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2015	$ 184,289	5.0000	$ 36,857	$ 0	0.0000
2016	16,074	5.0000	3,215	3,214	1.0000
2017	(300,923)	5.0000	(60,185)	(120,368)	2.0000
2018	415,461	5.0000	83,092	249,277	3.0000
2019	(345,424)	5.0000	(69,085)	(276,339)	4.0000
Total			**$ (6,106)**	**$ (144,216)**	

Schedule of Changes in Net Pension Liability and Related Ratios Current Period
Calendar Year Ended December 31, 2019

A. Total pension liability		
1. Service Cost	$	45,816
2. Interest on the Total Pension Liability		220,969
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		51,822
5. Changes of assumptions		0
6. Benefit payments, including refunds of employee contributions		(202,508)
7. Net change in total pension liability	$	116,099
8. Total pension liability – beginning		3,126,189
9. Total pension liability – ending	**$**	**3,242,288**
B. Plan fiduciary net position		
1. Contributions – employer	$	33,400
2. Contributions – employee		30,283
3. Net investment income		542,881
4. Benefit payments, including refunds of employee contributions		(202,508)
5. Other (Net Transfer)		28,738
6. Net change in plan fiduciary net position	$	432,794
7. Plan fiduciary net position – beginning		2,778,588
8. Plan fiduciary net position – ending	**$**	**3,211,382**
C. Net pension liability/(asset)	**$**	**30,906**
D. Plan fiduciary net position as a percentage of the total pension liability		**99.05%**
E. Covered Valuation payroll	**$**	**461,956**
F. Net pension liability as a percentage of covered valuation payroll		**6.69%**

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

	1% Decrease 6.25%	Current Single Discount Rate Assumption 7.25%	1% Increase 8.25%
Total Pension Liability	$ 3,635,536	$ 3,242,288	$ 2,921,105
Plan Fiduciary Net Position	3,211,382	3,211,382	3,211,382
Net Pension Liability/(Asset)	$ 424,154	$ 30,906	$ (290,277)

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,	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total Pension Liability										
Service Cost	$ 45,816	$ 43,704	$ 37,927	$ 41,320	$ 45,113	$ 45,510				
Interest on the Total Pension Liability	220,969	219,418	218,832	216,262	215,370	204,264				
Benefit Changes	0	0	0	0	0	0				
Difference between Expected and Actual Experience	51,822	(26,137)	29,024	(39,542)	(73,747)	(74,938)				
Assumption Changes	0	78,458	(97,780)	(3,199)	(3,272)	137,945				
Benefit Payments and Refunds	(202,508)	(185,954)	(180,191)	(185,261)	(161,747)	(151,901)				
Net Change in Total Pension Liability	116,099	129,489	7,812	29,580	21,717	160,880				
Total Pension Liability - Beginning	3,126,189	2,996,700	2,988,888	2,959,308	2,937,591	2,776,711				
Total Pension Liability - Ending (a)	$ 3,242,288	$ 3,126,189	$ 2,996,700	$ 2,988,888	$ 2,959,308	$ 2,937,591				
Plan Fiduciary Net Position										
Employer Contributions	$ 33,400	$ 52,623	$ 51,037	$ 54,067	$ 55,364	$ 60,939				
Employee Contributions	30,283	21,926	20,451	18,279	17,682	18,137				
Pension Plan Net Investment Income	542,881	(190,878)	495,858	176,177	13,009	155,067				
Benefit Payments and Refunds	(202,508)	(185,954)	(180,191)	(185,261)	(161,747)	(151,901)				
Other	28,738	61,447	(42,444)	(16,718)	57,736	(14,609)				
Net Change in Plan Fiduciary Net Position	432,794	(240,836)	344,711	46,544	(17,956)	67,633				
Plan Fiduciary Net Position - Beginning	2,778,588	3,019,424	2,674,713	2,628,169	2,646,125	2,578,492				
Plan Fiduciary Net Position - Ending (b)	$ 3,211,382	$ 2,778,588	$ 3,019,424	$ 2,674,713	$ 2,628,169	$ 2,646,125				
Net Pension Liability/(Asset) - Ending (a) - (b)	30,906	347,601	(22,724)	314,175	331,139	291,466				
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	99.05%	88.88 %	100.76 %	89.49%	88.81 %	90.08 %				
Covered Valuation Payroll	$ 461,956	$ 487,251	$ 454,471	$ 406,209	$ 392,931	$ 405,722				
Net Pension Liability as a Percentage of Covered Valuation Payroll	6.69%	71.34 %	(5.00)%	77.34%	84.27 %	71.84 %				

Multiyear Schedule of Contributions

Last 10 Calendar Years

Calendar Year Ending December 31,	Actuarially Determined Contribution		Actual Contribution	Contribution Deficiency (Excess)	Covered Valuation Payroll	Actual Contribution as a % of Covered Valuation Payroll
2014	$ 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%
2018	52,623		52,623	0	487,251	10.80%
2019	33,399	*	33,400	(1)	461,956	7.23%

** Estimated based on contribution rate of 7.23% and covered valuation payroll of $461,956. 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 2019 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 2019 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): 24-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 19 years for most employers (three employers were financed over 28 years and four others were financed over 29 years).
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage growth	3.25%
Price Inflation	2.50%
Salary Increases	3.35% to 14.25% including inflation
Investment Rate of Return	7.50%
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 Healthy 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 adjustments 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.

* *Based on Valuation Assumptions used in the December 31, 2017 actuarial valuation.*

Development of Market Value of Assets

Market Value of Assets as of December 31, 2019

1. Employee Contribution Reserve (MDF Assets from IMRF)	$	386,022
2. Employer Contribution Reserve (EAF assets from IMRF)	$	845,678
3. Annuitant Reserve	$	1,977,574
4. Miscellaneous Adjustment*	$	2,108
5. Net Market Value	$	3,211,382

* *Includes an adjustment factor of 0.0006568629* 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	$	33,400
b.) Accelerated payments and Reserve Payments		-
	$	**33,400**
2. Member		
a.) Wage Reporting	$	20,788
b.) Member Payments (i.e. ERI, Pension Payments)		9,495
Sub-total (Amount used for valuation on Schedule of Changes Page 10)	**$**	**30,283**
c.) Voluntary Additional Plan	$	1,082
Total Member Contributions (a+b+c)	**$**	**31,365**
Total Employer and Member Contributions (1+2)	**$**	**64,765**

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	3.35% to 14.25%
Investment Rate of Return	7.25%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2017 valuation pursuant to an experience study of the period 2014-2016.
Mortality	For non-disabled retirees, 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 Healthy 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 adjustments 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, 2019 Illinois Municipal Retirement Fund annual actuarial valuation report.

SECTION C

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

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

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

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 2.75%; 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 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

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
2019	$ 461,956				
2020	474,879	$ 21,370	$ 25,023	$ 12,324	$ 58,717
2021	454,812	20,467	23,558	9,747	53,772
2022	440,505	19,823	22,466	6,809	49,098
2023	429,103	19,310	21,970	3,465	44,745
2024	420,303	18,914	21,520	(339)	40,094
2025	411,475	18,516	21,068	(348)	39,236
2026	401,404	18,063	20,552	(356)	38,259
2027	389,004	17,505	19,878	(365)	37,019
2028	372,916	16,781	19,019	(374)	35,426
2029	358,152	16,117	18,195	(384)	33,928
2030	345,623	15,553	17,489	(393)	32,649
2031	334,472	15,051	16,859	(403)	31,507
2032	325,764	14,659	16,290	(413)	30,536
2033	318,616	14,338	15,837	(424)	29,751
2034	311,005	13,995	15,366	(434)	28,927
2035	303,413	13,654	14,870	(445)	28,079
2036	296,876	13,359	14,431	(456)	27,335
2037	290,939	13,092	13,998	(468)	26,622
2038	282,376	12,707	13,474	(479)	25,701
2039	273,006	12,285	12,863	(491)	24,658
2040	266,790	12,006	12,358	(503)	23,860
2041	259,479	11,677	11,864	(516)	23,025
2042	250,813	11,287	11,318	(529)	22,076
2043	244,407	10,998	10,859	0	21,857
2044	238,086	10,714	10,436	0	21,149
2045	231,402	10,413	10,004	0	20,417
2046	226,104	10,175	9,640	0	19,815
2047	222,403	10,008	9,349	0	19,358
2048	198,945	8,953	8,284	0	17,237
2049	155,560	7,000	6,462	0	13,462
2050	114,037	5,132	4,737	0	9,869
2051	87,779	3,950	3,646	0	7,596
2052	64,752	2,914	2,696	0	5,610
2053	42,258	1,902	1,764	0	3,665
2054	36,218	1,630	1,523	0	3,152
2055	25,534	1,149	1,066	0	2,215
2056	13,184	593	553	0	1,146
2057	9,877	444	422	0	867
2058	8,906	401	381	0	782
2059	5,461	246	232	0	478
2060	1,304	59	54	0	113
2061	332	15	13	0	28
2062	85	4	3	0	7
2063	21	1	1	0	2
2064	5	0	0	0	1
2065	1	0	0	0	0
2066	0	0	0	0	0
2067	0	0	0	0	0
2068	0	0	0	0	0
2069	0	0	0	0	0

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

Single Discount Rate Development
Projection of Contributions (Concluded)

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
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	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

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

Single Discount Rate Development
Projection of Plan Fiduciary Net Position

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2020	$ 3,211,382	$ 58,717	$ 210,640	$ 227,414	$ 3,286,873
2021	3,286,873	53,771	218,699	232,424	3,354,370
2022	3,354,370	49,098	226,527	236,873	3,413,814
2023	3,413,814	44,745	233,988	240,762	3,465,333
2024	3,465,333	40,094	238,619	244,166	3,510,974
2025	3,510,974	39,236	242,533	247,305	3,554,983
2026	3,554,983	38,259	245,081	250,370	3,598,531
2027	3,598,531	37,018	248,488	253,362	3,640,423
2028	3,640,423	35,426	252,010	256,217	3,680,056
2029	3,680,056	33,928	254,506	258,948	3,718,427
2030	3,718,427	32,649	256,559	261,611	3,756,128
2031	3,756,128	31,507	261,239	264,137	3,790,534
2032	3,790,534	30,536	263,364	266,521	3,824,227
2033	3,824,227	29,752	262,980	268,950	3,859,947
2034	3,859,947	28,927	266,065	271,400	3,894,210
2035	3,894,210	28,079	268,864	273,754	3,927,179
2036	3,927,179	27,335	266,451	276,204	3,964,266
2037	3,964,266	26,623	263,712	278,965	4,006,142
2038	4,006,142	25,701	263,467	281,977	4,050,354
2039	4,050,354	24,657	262,104	285,194	4,098,101
2040	4,098,101	23,860	259,305	288,727	4,151,382
2041	4,151,382	23,025	258,327	292,595	4,208,675
2042	4,208,675	22,076	256,173	296,791	4,271,369
2043	4,271,369	21,857	252,551	301,458	4,342,133
2044	4,342,133	21,149	252,258	306,574	4,417,598
2045	4,417,598	20,417	251,940	312,030	4,498,105
2046	4,498,105	19,815	248,497	317,968	4,587,392
2047	4,587,392	19,358	246,816	324,485	4,684,418
2048	4,684,418	17,237	271,526	330,564	4,760,692
2049	4,760,692	13,462	310,632	334,566	4,798,088
2050	4,798,088	9,869	346,215	335,882	4,797,625
2051	4,797,625	7,596	360,260	335,267	4,780,228
2052	4,780,228	5,610	383,644	333,103	4,735,297
2053	4,735,297	3,665	398,452	329,248	4,669,759
2054	4,669,759	3,152	395,656	324,578	4,601,833
2055	4,601,833	2,215	407,906	319,184	4,515,326
2056	4,515,326	1,146	416,335	312,574	4,412,712
2057	4,412,712	867	413,125	305,239	4,305,692
2058	4,305,692	782	408,842	297,629	4,195,262
2059	4,195,262	478	410,332	289,559	4,074,967
2060	4,074,967	113	410,029	280,836	3,945,887
2061	3,945,887	28	405,076	271,651	3,812,490
2062	3,812,490	7	399,360	262,182	3,675,318
2063	3,675,318	2	393,146	252,458	3,534,633
2064	3,534,633	1	386,553	242,494	3,390,574
2065	3,390,574	0	379,537	232,299	3,243,336
2066	3,243,336	0	371,971	221,894	3,093,259
2067	3,093,259	0	363,835	211,303	2,940,727
2068	2,940,727	0	355,098	200,556	2,786,184
2069	2,786,184	0	345,739	189,685	2,630,129

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

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

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2070	$ 2,630,129	$ 0	$ 335,739	$ 178,727	$ 2,473,116
2071	2,473,116	0	325,084	167,723	2,315,755
2072	2,315,755	0	313,767	156,717	2,158,705
2073	2,158,705	0	301,785	145,758	2,002,678
2074	2,002,678	0	289,144	134,896	1,848,431
2075	1,848,431	0	275,856	124,186	1,696,761
2076	1,696,761	0	261,937	113,686	1,548,510
2077	1,548,510	0	247,429	103,455	1,404,536
2078	1,404,536	0	232,406	93,552	1,265,682
2079	1,265,682	0	216,982	84,034	1,132,733
2080	1,132,733	0	201,294	74,954	1,006,393
2081	1,006,393	0	185,490	66,357	887,260
2082	887,260	0	169,717	58,282	775,825
2083	775,825	0	154,120	50,758	672,463
2084	672,463	0	138,823	43,809	577,449
2085	577,449	0	123,943	37,451	490,957
2086	490,957	0	109,601	31,691	413,047
2087	413,047	0	95,918	26,530	343,658
2088	343,658	0	83,018	21,958	282,599
2089	282,599	0	71,007	17,959	229,551
2090	229,551	0	59,969	14,507	184,089
2091	184,089	0	49,979	11,566	145,676
2092	145,676	0	41,079	9,098	113,696
2093	113,696	0	33,277	7,058	87,476
2094	87,476	0	26,557	5,396	66,315
2095	66,315	0	20,873	4,064	49,507
2096	49,507	0	16,145	3,014	36,376
2097	36,376	0	12,284	2,200	26,293
2098	26,293	0	9,191	1,579	18,681
2099	18,681	0	6,759	1,114	13,035
2100	13,035	0	4,881	771	8,925
2101	8,925	0	3,459	524	5,990
2102	5,990	0	2,404	349	3,935
2103	3,935	0	1,637	227	2,525
2104	2,525	0	1,089	144	1,580
2105	1,580	0	707	89	963
2106	963	0	447	54	569
2107	569	0	274	32	327
2108	327	0	163	18	181
2109	181	0	94	10	98
2110	98	0	52	5	51
2111	51	0	27	3	26
2112	26	0	14	1	14
2113	14	0	7	1	7
2114	7	0	3	0	5
2115	5	0	1	0	4
2116	4	0	1	0	3
2117	3	0	0	0	3
2118	3	0	0	0	3
2119	3	0	0	0	4

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

Single Discount Rate Development
Present Values of Projected Benefits

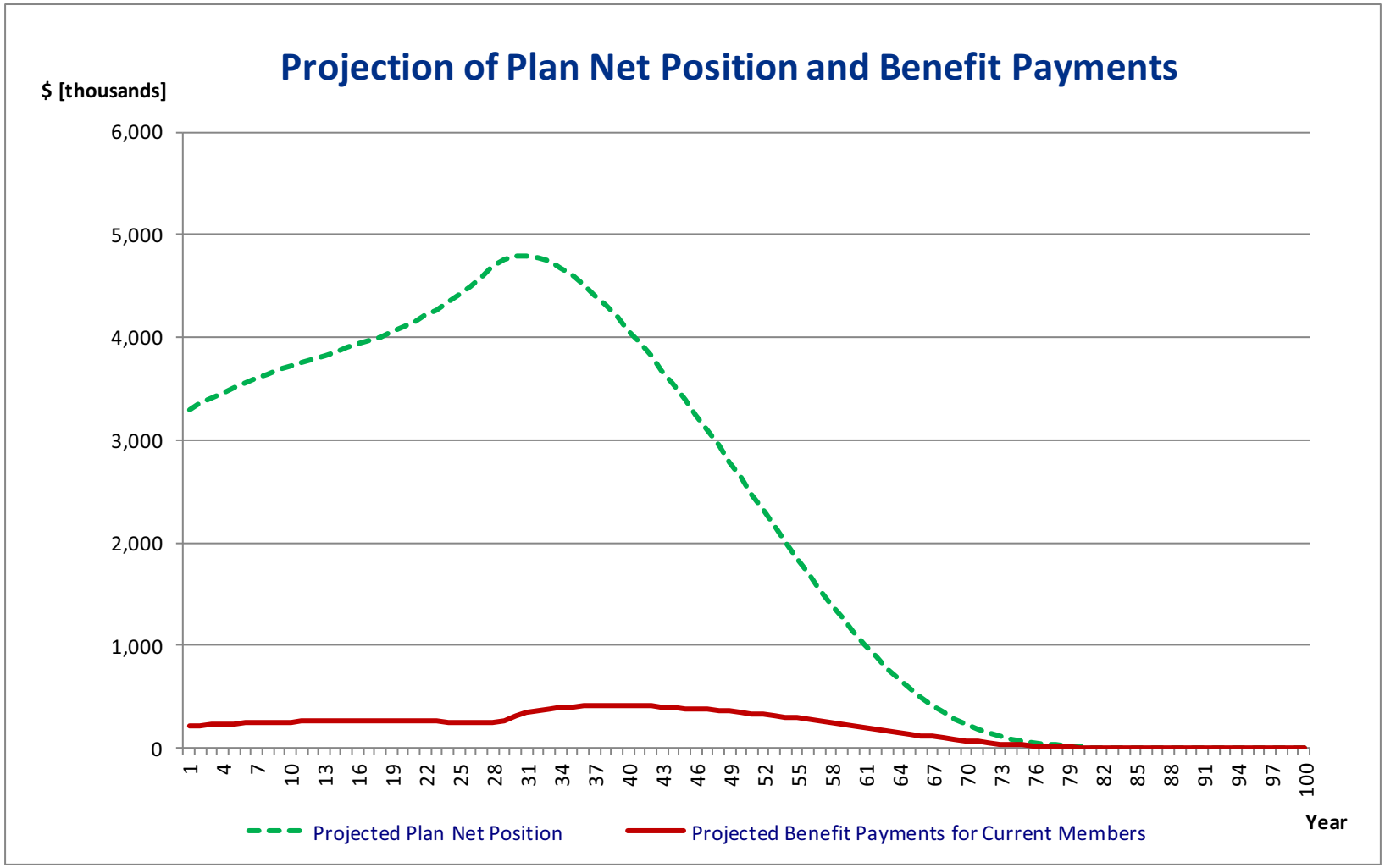
Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/(1+sdr)^(a-.5)
2020	$ 3,211,382	$ 210,640	$ 210,640	$ 0	$ 203,396	$ 0	$ 203,396
2021	3,286,873	218,699	218,699	0	196,902	0	196,902
2022	3,354,370	226,527	226,527	0	190,163	0	190,163
2023	3,413,814	233,988	233,988	0	183,149	0	183,149
2024	3,465,333	238,619	238,619	0	174,147	0	174,147
2025	3,510,974	242,533	242,533	0	165,039	0	165,039
2026	3,554,983	245,081	245,081	0	155,499	0	155,499
2027	3,598,531	248,488	248,488	0	147,003	0	147,003
2028	3,640,423	252,010	252,010	0	139,008	0	139,008
2029	3,680,056	254,506	254,506	0	130,895	0	130,895
2030	3,718,427	256,559	256,559	0	123,031	0	123,031
2031	3,756,128	261,239	261,239	0	116,807	0	116,807
2032	3,790,534	263,364	263,364	0	109,797	0	109,797
2033	3,824,227	262,980	262,980	0	102,226	0	102,226
2034	3,859,947	266,065	266,065	0	96,433	0	96,433
2035	3,894,210	268,864	268,864	0	90,861	0	90,861
2036	3,927,179	266,451	266,451	0	83,958	0	83,958
2037	3,964,266	263,712	263,712	0	77,478	0	77,478
2038	4,006,142	263,467	263,467	0	72,173	0	72,173
2039	4,050,354	262,104	262,104	0	66,946	0	66,946
2040	4,098,101	259,305	259,305	0	61,754	0	61,754
2041	4,151,382	258,327	258,327	0	57,362	0	57,362
2042	4,208,675	256,173	256,173	0	53,039	0	53,039
2043	4,271,369	252,551	252,551	0	48,754	0	48,754
2044	4,342,133	252,258	252,258	0	45,406	0	45,406
2045	4,417,598	251,940	251,940	0	42,283	0	42,283
2046	4,498,105	248,497	248,497	0	38,886	0	38,886
2047	4,587,392	246,816	246,816	0	36,012	0	36,012
2048	4,684,418	271,526	271,526	0	36,939	0	36,939
2049	4,760,692	310,632	310,632	0	39,403	0	39,403
2050	4,798,088	346,215	346,215	0	40,948	0	40,948
2051	4,797,625	360,260	360,260	0	39,728	0	39,728
2052	4,780,228	383,644	383,644	0	39,447	0	39,447
2053	4,735,297	398,452	398,452	0	38,200	0	38,200
2054	4,669,759	395,656	395,656	0	35,368	0	35,368
2055	4,601,833	407,906	407,906	0	33,998	0	33,998
2056	4,515,326	416,335	416,335	0	32,355	0	32,355
2057	4,412,712	413,125	413,125	0	29,935	0	29,935
2058	4,305,692	408,842	408,842	0	27,622	0	27,622
2059	4,195,262	410,332	410,332	0	25,849	0	25,849
2060	4,074,967	410,029	410,029	0	24,084	0	24,084
2061	3,945,887	405,076	405,076	0	22,184	0	22,184
2062	3,812,490	399,360	399,360	0	20,393	0	20,393
2063	3,675,318	393,146	393,146	0	18,718	0	18,718
2064	3,534,633	386,553	386,553	0	17,160	0	17,160
2065	3,390,574	379,537	379,537	0	15,710	0	15,710
2066	3,243,336	371,971	371,971	0	14,356	0	14,356
2067	3,093,259	363,835	363,835	0	13,093	0	13,093
2068	2,940,727	355,098	355,098	0	11,915	0	11,915
2069	2,786,184	345,739	345,739	0	10,816	0	10,816

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

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

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/(1+sdr)^(a-.5)
2070	$ 2,630,129	$ 335,739	$ 335,739	$ 0	$ 9,794	$ 0	$ 9,794
2071	2,473,116	325,084	325,084	0	8,842	0	8,842
2072	2,315,755	313,767	313,767	0	7,957	0	7,957
2073	2,158,705	301,785	301,785	0	7,136	0	7,136
2074	2,002,678	289,144	289,144	0	6,375	0	6,375
2075	1,848,431	275,856	275,856	0	5,671	0	5,671
2076	1,696,761	261,937	261,937	0	5,021	0	5,021
2077	1,548,510	247,429	247,429	0	4,422	0	4,422
2078	1,404,536	232,406	232,406	0	3,873	0	3,873
2079	1,265,682	216,982	216,982	0	3,371	0	3,371
2080	1,132,733	201,294	201,294	0	2,916	0	2,916
2081	1,006,393	185,490	185,490	0	2,505	0	2,505
2082	887,260	169,717	169,717	0	2,137	0	2,137
2083	775,825	154,120	154,120	0	1,810	0	1,810
2084	672,463	138,823	138,823	0	1,520	0	1,520
2085	577,449	123,943	123,943	0	1,265	0	1,265
2086	490,957	109,601	109,601	0	1,043	0	1,043
2087	413,047	95,918	95,918	0	851	0	851
2088	343,658	83,018	83,018	0	687	0	687
2089	282,599	71,007	71,007	0	548	0	548
2090	229,551	59,969	59,969	0	431	0	431
2091	184,089	49,979	49,979	0	335	0	335
2092	145,676	41,079	41,079	0	257	0	257
2093	113,696	33,277	33,277	0	194	0	194
2094	87,476	26,557	26,557	0	144	0	144
2095	66,315	20,873	20,873	0	106	0	106
2096	49,507	16,145	16,145	0	76	0	76
2097	36,376	12,284	12,284	0	54	0	54
2098	26,293	9,191	9,191	0	38	0	38
2099	18,681	6,759	6,759	0	26	0	26
2100	13,035	4,881	4,881	0	17	0	17
2101	8,925	3,459	3,459	0	12	0	12
2102	5,990	2,404	2,404	0	7	0	7
2103	3,935	1,637	1,637	0	5	0	5
2104	2,525	1,089	1,089	0	3	0	3
2105	1,580	707	707	0	2	0	2
2106	963	447	447	0	1	0	1
2107	569	274	274	0	1	0	1
2108	327	163	163	0	0	0	0
2109	181	94	94	0	0	0	0
2110	98	52	52	0	0	0	0
2111	51	27	27	0	0	0	0
2112	26	14	14	0	0	0	0
2113	14	7	7	0	0	0	0
2114	7	3	3	0	0	0	0
2115	5	1	1	0	0	0	0
2116	4	1	1	0	0	0	0
2117	3	0	0	0	0	0	0
2118	3	0	0	0	0	0	0
2119	3	0	0	0	0	0	0
				Totals	$ 3,676,083	$ -	$ 3,676,083

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



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

SECTION D

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Accrued Service	Service credited under the fund which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

Glossary of Terms (Continued)

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered Valuation Payroll	The earnings of covered employees for the year ended on the valuation date, which is typically only the pensionable pay and does not include pay above any pay cap. It is not necessarily the same as payroll actually paid because it excludes all pay for people who exited during the year.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: 1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
Entry Age Actuarial Cost Method (EAN)	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit 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 post-employment 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.