

Arbor Park SD 145 Regular

GASB Statement No. 68 Employer Reporting
Accounting Schedules
December 31, 2018



Table of Contents

Page

Certification Letter

Section A Executive Summary

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

Section B Financial Statements

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

Section C Calculation of the Single Discount Rate

Calculation of the Single Discount Rate	16
Projection of Contributions.....	17 - 18
Projection of Plan Fiduciary Net Position	19 - 20
Present Values of Projected Benefits.....	21 - 22
Projection of Plan Net Position and Benefit Payments	23

Section D Glossary of Terms..... 24 - 27

March 27, 2019

Arbor Park SD 145
Illinois Municipal Retirement Fund

Ladies and Gentlemen:

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

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

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 68. The Net Pension Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net Pension Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the Arbor Park SD 145 only in its entirety and only with the permission of Arbor Park SD 145. GRS is not responsible for unauthorized use of this report.

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

This report complements the actuarial valuation report that was provided to the IMRF and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 2018 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 Arbor Park SD 145. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

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:dj

SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2018

Actuarial Valuation Date	December 31, 2018
Measurement Date of the Net Pension Liability	December 31, 2018
Fiscal Year End	June 30, 2019

Membership

Number of	
- Retirees and Beneficiaries	256
- Inactive, Non-Retired Members	245
- Active Members	87
- Total	588
Covered Valuation Payroll ⁽¹⁾	\$ 2,228,531

Net Pension Liability

Total Pension Liability/(Asset)	\$ 12,664,930
Plan Fiduciary Net Position	10,535,590
Net Pension Liability/(Asset)	\$ 2,129,340
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	83.19%
Net Pension Liability as a Percentage of Covered Valuation Payroll	95.55%

Development of the Single Discount Rate as of December 31, 2018

Long-Term Expected Rate of Investment Return	7.25%
Long-Term Municipal Bond Rate ⁽²⁾	3.71%
Last year ending December 31 in the 2019 to 2118 projection period for which projected benefit payments are fully funded	2118
Resulting Single Discount Rate based on the above development	7.25%
Single Discount Rate calculated using December 31, 2017 Measurement Date	7.50%

Total Pension Expense/(Income) \$ 456,154

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	\$ 27,343	\$ 0
Changes in assumptions	59,459	0
Net difference between projected and actual earnings on pension plan investments	1,422,434	735,166
Total	\$ 1,509,236	\$ 735,166

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

⁽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, 2018. 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, 2018.

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, 2018 Annual Actuarial Valuation report dated February 28, 2019);
- 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, 2018 Annual Actuarial Valuation report dated February 28, 2019, 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, 2018 and a measurement date of December 31, 2018.

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 3.71% (based on the daily rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" described on page 1), and the resulting Single Discount Rate is 7.25%.

Other Observations

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

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

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

This funding policy results in a crossover date in 2118 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 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, 2018

A. Expense/(Income)

1. Service Cost	\$	218,681
2. Interest on the Total Pension Liability		874,444
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(100,401)
5. Projected Earnings on Plan Investments (made negative for addition here)		(852,853)
6. Other Changes in Plan Fiduciary Net Position		(166,264)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		228,468
8. Recognition of Outflow (Inflow) of Resources due to Assets		254,079
9. Total Pension Expense/(Income)	\$	456,154

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 735.83 years. Additionally, the total plan membership (active employees and inactive employees) was 585. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 1.2578 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, 2018

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 133,408
2. Assumption Changes (gains) or losses	\$ 290,097
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	1.2578
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	\$ 106,065
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$ 230,638
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$ 336,703
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	\$ 27,343
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$ 59,459
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$ 86,802

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ 1,556,402
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	\$ 311,280
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ 1,245,122

* 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, 2018

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	\$ 336,703	\$ 108,235	\$ 228,468
2. Due to Assets	499,134	245,055	254,079
3. Total	\$ 835,837	\$ 353,290	\$ 482,547

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	\$ 106,065	\$ 51,623	\$ 54,442
2. Assumption changes	230,638	56,612	174,026
3. Net difference between projected and actual earnings on pension plan investments	499,134	245,055	254,079
4. Total	\$ 835,837	\$ 353,290	\$ 482,547

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	\$ 27,343	\$ 0	\$ 27,343
2. Assumption changes	59,459	0	59,459
3. Net difference between projected and actual earnings on pension plan investments	1,422,434	735,166	687,268
4. Total	\$ 1,509,236	\$ 735,166	\$ 774,070

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
2019	\$ 312,766
2020	83,798
2021	66,224
2022	311,282
2023	0
Thereafter	0
Total	\$ 774,070

Schedule of Changes in Net Pension Liability and Related Ratios Current Period Calendar Year Ended December 31, 2018

A. Total pension liability		
1. Service Cost	\$	218,681
2. Interest on the Total Pension Liability		874,444
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		133,408
5. Changes of assumptions		290,097
6. Benefit payments, including refunds of employee contributions		(803,238)
7. Net change in total pension liability	\$	713,392
8. Total pension liability – beginning		11,951,538
9. Total pension liability – ending	<u>\$</u>	<u>12,664,930</u>
B. Plan fiduciary net position		
1. Contributions – employer	\$	272,104
2. Contributions – employee		100,401
3. Net investment income		(703,549)
4. Benefit payments, including refunds of employee contributions		(803,238)
5. Other (Net Transfer)		166,264
6. Net change in plan fiduciary net position	\$	(968,018)
7. Plan fiduciary net position – beginning		11,503,608
8. Plan fiduciary net position – ending	<u>\$</u>	<u>10,535,590</u>
C. Net pension liability/(asset)	<u>\$</u>	<u>2,129,340</u>
D. Plan fiduciary net position as a percentage of the total pension liability		83.19%
E. Covered Valuation payroll	\$	2,228,531
F. Net pension liability as a percentage of covered valuation payroll		95.55%

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

	Current Single Discount		
	1% Decrease 6.25%	Rate Assumption 7.25%	1% Increase 8.25%
Total Pension Liability	\$ 13,955,990	\$ 12,664,930	\$ 11,571,753
Plan Fiduciary Net Position	10,535,590	10,535,590	10,535,590
Net Pension Liability/(Asset)	\$ 3,420,400	\$ 2,129,340	\$ 1,036,163

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,	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total Pension Liability										
Service Cost	\$ 218,681	\$ 217,754	\$ 242,420	\$ 217,911	\$ 240,979					
Interest on the Total Pension Liability	874,444	904,517	846,188	816,194	764,359					
Benefit Changes	0	0	0	0	0					
Difference between Expected and Actual Experience	133,408	(354,752)	425,635	33,893	(192,102)					
Assumption Changes	290,097	(389,040)	(24,340)	11,816	495,070					
Benefit Payments and Refunds	(803,238)	(756,569)	(703,481)	(649,543)	(559,875)					
Net Change in Total Pension Liability	713,392	(378,090)	786,422	430,271	748,431					
Total Pension Liability - Beginning	11,951,538	12,329,628	11,543,206	11,112,935	10,364,504					
Total Pension Liability - Ending (a)	\$ 12,664,930	\$ 11,951,538	\$ 12,329,628	\$ 11,543,206	\$ 11,112,935					
Plan Fiduciary Net Position										
Employer Contributions	\$ 272,104	\$ 216,301	\$ 253,337	\$ 270,455	\$ 255,429					
Employee Contributions	100,401	91,154	92,944	96,371	88,024					
Pension Plan Net Investment Income	(703,549)	1,982,102	667,131	50,337	582,648					
Benefit Payments and Refunds	(803,238)	(756,569)	(703,481)	(649,543)	(559,875)					
Other	166,264	(689,907)	210,870	163,369	182,698					
Net Change in Plan Fiduciary Net Position	(968,018)	843,081	520,801	(69,011)	548,924					
Plan Fiduciary Net Position - Beginning	11,503,608	10,660,527	10,139,726	10,208,737	9,659,813					
Plan Fiduciary Net Position - Ending (b)	\$ 10,535,590	\$ 11,503,608	\$ 10,660,527	\$ 10,139,726	\$ 10,208,737					
Net Pension Liability/(Asset) - Ending (a) - (b)	2,129,340	447,930	1,669,101	1,403,480	904,198					
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	83.19%	96.25 %	86.46 %	87.84%	91.86 %					
Covered Valuation Payroll	\$ 2,228,531	\$ 2,028,804	\$ 2,067,791	\$ 2,137,254	\$ 1,911,173					
Net Pension Liability as a Percentage										
of Covered Valuation Payroll	95.55%	22.08 %	80.72 %	65.67%	47.31 %					

Multiyear Schedule of Contributions

Last 10 Calendar Years

<u>Calendar Year Ending December 31,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Valuation Payroll</u>	<u>Actual Contribution as a % of Covered Valuation Payroll</u>
2014	\$ 254,377	\$ 255,429	\$ (1,052)	\$ 1,911,173	13.37%
2015	270,790	270,455	335	2,137,254	12.65%
2016	247,101	253,337	(6,236)	2,067,791	12.25%
2017	216,676	216,301	375	2,028,804	10.66%
2018	272,104 *	272,104	0	2,228,531	12.21%

* Estimated based on contribution rate of 12.21% and covered valuation payroll of \$2,228,531.
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 2018 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 2018 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): 25-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 20 years for most employers (three employers were financed over 29 years).
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage growth	3.50%
Price Inflation	2.75%
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, 2016 actuarial valuation.

Development of Market Value of Assets

Market Value of Assets as of December 31, 2018

1. Employee Contribution Reserve (MDF Assets from IMRF)	\$	1,580,531
2. Employer Contribution Reserve (EAF assets from IMRF)	\$	727,435
3. Annuitant Reserve	\$	8,198,515
4. Miscellaneous Adjustment*	\$	29,109
5. Net Market Value	\$	10,535,590

* Includes an adjustment factor of 0.0027705476 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	\$	272,104
b.) Accelerated payments and Reserve Payments		-
	\$	272,104

2. Member

a.) Wage Reporting	\$	100,283
b.) Member Payments (i.e. ERI, Pension Payments)		118
Sub-total (Amount used for valuation on Schedule of Changes Page 10)	\$	100,401
c.) Voluntary Additional Plan	\$	19,578
Total Member Contributions (a+b+c)	\$	119,979

Total Employer and Member Contributions (1+2) \$ **392,083**

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	7.25%
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 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, 2018 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 3.71%; 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
2018	\$ 2,228,531				
2019	2,176,104	\$ 97,925	\$ 121,539	\$ 112,429	\$ 331,893
2020	1,965,996	88,470	118,459	125,630	332,559
2021	1,784,715	80,312	105,751	140,202	326,265
2022	1,625,872	73,164	95,851	156,310	325,325
2023	1,485,336	66,840	86,971	174,140	327,951
2024	1,359,257	61,167	78,773	178,493	318,432
2025	1,241,279	55,858	70,942	182,956	309,756
2026	1,133,204	50,994	63,972	187,529	302,495
2027	1,042,883	46,930	58,247	192,218	297,395
2028	968,661	43,590	53,520	197,023	294,133
2029	902,968	40,634	49,439	201,949	292,021
2030	838,012	37,711	45,547	206,997	290,254
2031	778,071	35,013	42,055	212,172	289,241
2032	727,939	32,757	39,127	217,477	289,361
2033	681,153	30,652	36,408	222,914	289,974
2034	630,615	28,378	33,517	228,486	290,381
2035	581,152	26,152	30,714	234,199	291,065
2036	536,035	24,122	28,222	240,054	292,398
2037	496,481	22,342	26,040	246,055	294,437
2038	463,247	20,846	24,205	252,206	297,257
2039	430,774	19,385	22,422	258,511	300,318
2040	398,683	17,941	20,672	264,974	303,586
2041	368,926	16,602	19,092	271,599	307,292
2042	336,443	15,140	17,310	278,388	310,838
2043	300,467	13,521	15,309	0	28,830
2044	268,294	12,073	13,428	0	25,501
2045	242,771	10,925	11,932	0	22,857
2046	222,649	10,019	10,787	0	20,806
2047	201,715	9,077	9,692	0	18,769
2048	180,202	8,109	8,568	0	16,677
2049	163,314	7,349	7,651	0	15,000
2050	152,323	6,855	7,044	0	13,899
2051	138,918	6,251	6,313	0	12,565
2052	123,115	5,540	5,484	0	11,024
2053	104,561	4,705	4,595	0	9,300
2054	83,255	3,746	3,634	0	7,380
2055	58,829	2,647	2,562	0	5,209
2056	38,915	1,751	1,702	0	3,453
2057	25,131	1,131	1,112	0	2,243
2058	10,397	468	466	0	934
2059	4,159	187	200	0	387
2060	2,261	102	124	0	226
2061	1,529	69	95	0	164
2062	1,143	51	76	0	127
2063	834	38	58	0	95
2064	598	27	40	0	67
2065	270	12	19	0	31
2066	0	0	0	0	0
2067	0	0	0	0	0
2068	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
2069	\$ 0	\$ 0	\$ 0	\$ 0	0
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

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)
2019	\$ 10,535,590	\$ 331,893	\$ 805,283	\$ 746,970	\$ 10,809,170
2020	10,809,170	332,559	849,049	765,270	11,057,949
2021	11,057,949	326,265	887,162	781,725	11,278,777
2022	11,278,777	325,325	926,499	796,300	11,473,903
2023	11,473,903	327,951	959,784	809,355	11,651,425
2024	11,651,425	318,433	993,913	820,671	11,796,615
2025	11,796,615	309,755	1,024,930	829,783	11,911,223
2026	11,911,223	302,495	1,054,897	836,766	11,995,588
2027	11,995,588	297,394	1,079,797	841,814	12,055,000
2028	12,055,000	294,133	1,110,475	844,913	12,083,570
2029	12,083,570	292,021	1,137,712	845,939	12,083,818
2030	12,083,818	290,255	1,165,243	844,913	12,053,743
2031	12,053,743	289,241	1,187,326	841,910	11,997,569
2032	11,997,569	289,361	1,194,739	837,578	11,929,769
2033	11,929,769	289,973	1,199,830	832,503	11,852,415
2034	11,852,415	290,382	1,204,967	826,726	11,764,556
2035	11,764,556	291,064	1,206,438	820,329	11,669,510
2036	11,669,510	292,397	1,202,634	813,621	11,572,895
2037	11,572,895	294,437	1,196,878	806,894	11,477,347
2038	11,477,347	297,257	1,201,667	799,896	11,372,834
2039	11,372,834	300,318	1,189,301	792,869	11,276,720
2040	11,276,720	303,586	1,179,853	786,353	11,186,806
2041	11,186,806	307,292	1,167,374	780,411	11,107,135
2042	11,107,135	310,838	1,151,019	775,344	11,042,298
2043	11,042,298	28,830	1,135,195	761,163	10,697,095
2044	10,697,095	25,501	1,116,990	736,665	10,342,271
2045	10,342,271	22,857	1,091,469	711,755	9,985,414
2046	9,985,414	20,806	1,062,688	686,835	9,630,367
2047	9,630,367	18,769	1,032,890	662,083	9,278,329
2048	9,278,329	16,677	1,002,117	637,582	8,930,470
2049	8,930,470	15,000	967,466	613,536	8,591,541
2050	8,591,541	13,899	929,573	590,274	8,266,142
2051	8,266,142	12,565	897,602	567,774	7,948,878
2052	7,948,878	11,024	867,937	545,774	7,637,740
2053	7,637,740	9,300	847,536	523,882	7,323,386
2054	7,323,386	7,380	829,222	501,675	7,003,219
2055	7,003,219	5,209	812,935	478,966	6,674,458
2056	6,674,458	3,453	785,773	456,035	6,348,173
2057	6,348,173	2,243	760,621	433,232	6,023,028
2058	6,023,028	934	736,181	410,483	5,698,264
2059	5,698,264	387	703,899	388,068	5,382,821
2060	5,382,821	226	669,258	366,426	5,080,215
2061	5,080,215	164	635,606	345,684	4,790,457
2062	4,790,457	127	603,373	325,823	4,513,034
2063	4,513,034	95	572,808	306,797	4,247,119
2064	4,247,119	67	543,506	288,561	3,992,241
2065	3,992,241	31	515,726	271,071	3,747,616
2066	3,747,616	0	488,950	254,288	3,512,954
2067	3,512,954	0	463,194	238,192	3,287,952
2068	3,287,952	0	438,527	222,758	3,072,183

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)
2069	\$ 3,072,183	\$ 0	\$ 414,866	\$ 207,958	\$ 2,865,275
2070	2,865,275	0	392,139	193,766	2,666,903
2071	2,666,903	0	370,290	180,162	2,476,775
2072	2,476,775	0	349,266	167,127	2,294,636
2073	2,294,636	0	329,023	154,643	2,120,256
2074	2,120,256	0	309,506	142,695	1,953,445
2075	1,953,445	0	290,664	131,273	1,794,054
2076	1,794,054	0	272,458	120,365	1,641,961
2077	1,641,961	0	254,850	109,965	1,497,076
2078	1,497,076	0	237,821	100,068	1,359,323
2079	1,359,323	0	221,345	90,668	1,228,646
2080	1,228,646	0	205,402	81,761	1,105,005
2081	1,105,005	0	189,961	73,347	988,392
2082	988,392	0	174,984	65,426	878,834
2083	878,834	0	160,455	58,001	776,380
2084	776,380	0	146,379	51,074	681,075
2085	681,075	0	132,771	44,649	592,953
2086	592,953	0	119,660	38,727	512,021
2087	512,021	0	107,074	33,308	438,255
2088	438,255	0	95,058	28,388	371,586
2089	371,586	0	83,666	23,960	311,880
2090	311,880	0	72,949	20,013	258,945
2091	258,945	0	62,955	16,531	212,521
2092	212,521	0	53,734	13,494	172,280
2093	172,280	0	45,326	10,876	137,830
2094	137,830	0	37,749	8,648	108,730
2095	108,730	0	31,006	6,779	84,502
2096	84,502	0	25,093	5,233	64,642
2097	64,642	0	19,994	3,974	48,622
2098	48,622	0	15,666	2,967	35,924
2099	35,924	0	12,056	2,175	26,042
2100	26,042	0	9,105	1,564	18,502
2101	18,502	0	6,739	1,101	12,864
2102	12,864	0	4,882	759	8,740
2103	8,740	0	3,456	511	5,794
2104	5,794	0	2,387	335	3,742
2105	3,742	0	1,606	214	2,349
2106	2,349	0	1,051	133	1,431
2107	1,431	0	667	80	844
2108	844	0	410	47	480
2109	480	0	243	26	263
2110	263	0	139	14	139
2111	139	0	76	7	70
2112	70	0	40	4	35
2113	35	0	20	2	16
2114	16	0	10	1	7
2115	7	0	5	0	3
2116	3	0	2	0	1
2117	1	0	1	0	0
2118	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

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}
2019	\$ 10,535,590	\$ 805,283	\$ 805,283	\$ 0	\$ 777,589	\$ 0	\$ 777,589
2020	10,809,170	849,049	849,049	0	764,429	0	764,429
2021	11,057,949	887,162	887,162	0	744,749	0	744,749
2022	11,278,777	926,499	926,499	0	725,194	0	725,194
2023	11,473,903	959,784	959,784	0	700,464	0	700,464
2024	11,651,425	993,913	993,913	0	676,337	0	676,337
2025	11,796,615	1,024,930	1,024,930	0	650,297	0	650,297
2026	11,911,223	1,054,897	1,054,897	0	624,066	0	624,066
2027	11,995,588	1,079,797	1,079,797	0	595,614	0	595,614
2028	12,055,000	1,110,475	1,110,475	0	571,129	0	571,129
2029	12,083,570	1,137,712	1,137,712	0	545,583	0	545,583
2030	12,083,818	1,165,243	1,165,243	0	521,012	0	521,012
2031	12,053,743	1,187,326	1,187,326	0	494,998	0	494,998
2032	11,997,569	1,194,739	1,194,739	0	464,418	0	464,418
2033	11,929,769	1,199,830	1,199,830	0	434,870	0	434,870
2034	11,852,415	1,204,967	1,204,967	0	407,209	0	407,209
2035	11,764,556	1,206,438	1,206,438	0	380,145	0	380,145
2036	11,669,510	1,202,634	1,202,634	0	353,330	0	353,330
2037	11,572,895	1,196,878	1,196,878	0	327,869	0	327,869
2038	11,477,347	1,201,667	1,201,667	0	306,928	0	306,928
2039	11,372,834	1,189,301	1,189,301	0	283,235	0	283,235
2040	11,276,720	1,179,853	1,179,853	0	261,991	0	261,991
2041	11,186,806	1,167,374	1,167,374	0	241,697	0	241,697
2042	11,107,135	1,151,019	1,151,019	0	222,201	0	222,201
2043	11,042,298	1,135,195	1,135,195	0	204,332	0	204,332
2044	10,697,095	1,116,990	1,116,990	0	187,464	0	187,464
2045	10,342,271	1,091,469	1,091,469	0	170,798	0	170,798
2046	9,985,414	1,062,688	1,062,688	0	155,053	0	155,053
2047	9,630,367	1,032,890	1,032,890	0	140,518	0	140,518
2048	9,278,329	1,002,117	1,002,117	0	127,115	0	127,115
2049	8,930,470	967,466	967,466	0	114,424	0	114,424
2050	8,591,541	929,573	929,573	0	102,511	0	102,511
2051	8,266,142	897,602	897,602	0	92,294	0	92,294
2052	7,948,878	867,937	867,937	0	83,211	0	83,211
2053	7,637,740	847,536	847,536	0	75,762	0	75,762
2054	7,323,386	829,222	829,222	0	69,114	0	69,114
2055	7,003,219	812,935	812,935	0	63,176	0	63,176
2056	6,674,458	785,773	785,773	0	56,937	0	56,937
2057	6,348,173	760,621	760,621	0	51,389	0	51,389
2058	6,023,028	736,181	736,181	0	46,376	0	46,376
2059	5,698,264	703,899	703,899	0	41,345	0	41,345
2060	5,382,821	669,258	669,258	0	36,653	0	36,653
2061	5,080,215	635,606	635,606	0	32,457	0	32,457
2062	4,790,457	603,373	603,373	0	28,728	0	28,728
2063	4,513,034	572,808	572,808	0	25,429	0	25,429
2064	4,247,119	543,506	543,506	0	22,497	0	22,497
2065	3,992,241	515,726	515,726	0	19,904	0	19,904
2066	3,747,616	488,950	488,950	0	17,595	0	17,595
2067	3,512,954	463,194	463,194	0	15,542	0	15,542
2068	3,287,952	438,527	438,527	0	13,719	0	13,719

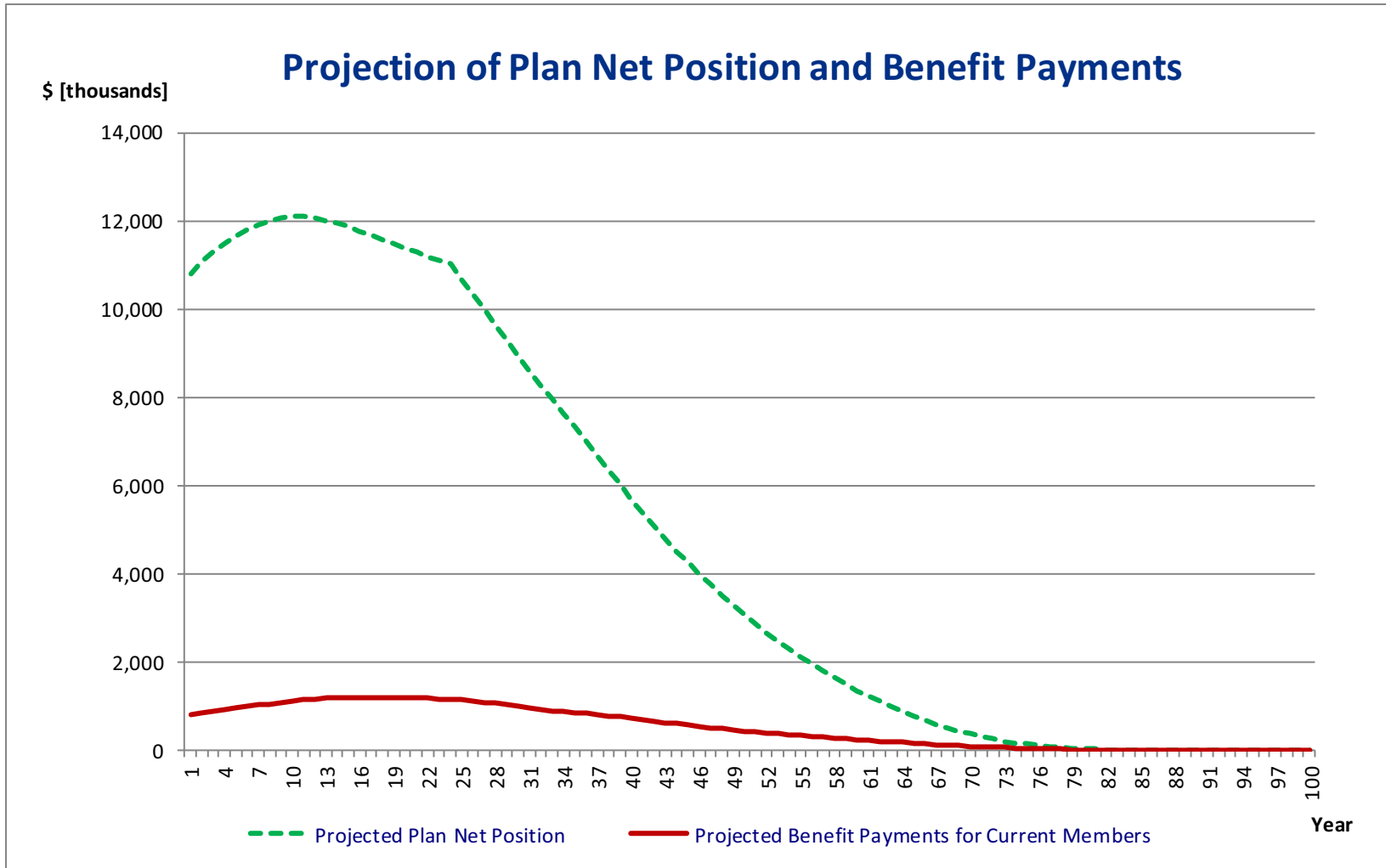
The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

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}
2069	\$ 3,072,183	\$ 414,866	\$ 414,866	\$ 0	\$ 12,102	\$ 0	\$ 12,102
2070	2,865,275	392,139	392,139	0	10,665	0	10,665
2071	2,666,903	370,290	370,290	0	9,390	0	9,390
2072	2,476,775	349,266	349,266	0	8,258	0	8,258
2073	2,294,636	329,023	329,023	0	7,254	0	7,254
2074	2,120,256	309,506	309,506	0	6,362	0	6,362
2075	1,953,445	290,664	290,664	0	5,571	0	5,571
2076	1,794,054	272,458	272,458	0	4,869	0	4,869
2077	1,641,961	254,850	254,850	0	4,247	0	4,247
2078	1,497,076	237,821	237,821	0	3,695	0	3,695
2079	1,359,323	221,345	221,345	0	3,207	0	3,207
2080	1,228,646	205,402	205,402	0	2,774	0	2,774
2081	1,105,005	189,961	189,961	0	2,392	0	2,392
2082	988,392	174,984	174,984	0	2,055	0	2,055
2083	878,834	160,455	160,455	0	1,757	0	1,757
2084	776,380	146,379	146,379	0	1,494	0	1,494
2085	681,075	132,771	132,771	0	1,264	0	1,264
2086	592,953	119,660	119,660	0	1,062	0	1,062
2087	512,021	107,074	107,074	0	886	0	886
2088	438,255	95,058	95,058	0	733	0	733
2089	371,586	83,666	83,666	0	602	0	602
2090	311,880	72,949	72,949	0	489	0	489
2091	258,945	62,955	62,955	0	394	0	394
2092	212,521	53,734	53,734	0	313	0	313
2093	172,280	45,326	45,326	0	246	0	246
2094	137,830	37,749	37,749	0	191	0	191
2095	108,730	31,006	31,006	0	147	0	147
2096	84,502	25,093	25,093	0	111	0	111
2097	64,642	19,994	19,994	0	82	0	82
2098	48,622	15,666	15,666	0	60	0	60
2099	35,924	12,056	12,056	0	43	0	43
2100	26,042	9,105	9,105	0	30	0	30
2101	18,502	6,739	6,739	0	21	0	21
2102	12,864	4,882	4,882	0	14	0	14
2103	8,740	3,456	3,456	0	9	0	9
2104	5,794	2,387	2,387	0	6	0	6
2105	3,742	1,606	1,606	0	4	0	4
2106	2,349	1,051	1,051	0	2	0	2
2107	1,431	667	667	0	1	0	1
2108	844	410	410	0	1	0	1
2109	480	243	243	0	0	0	0
2110	263	139	139	0	0	0	0
2111	139	76	76	0	0	0	0
2112	70	40	40	0	0	0	0
2113	35	20	20	0	0	0	0
2114	16	10	10	0	0	0	0
2115	7	5	5	0	0	0	0
2116	3	2	2	0	0	0	0
2117	1	1	1	0	0	0	0
2118	0	0	0	0	0	0	0
Totals					\$ 14,162,502	\$ -	\$ 14,162,502

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

<i>Actuarial Accrued Liability (AAL)</i>	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."
<i>Actuarial Assumptions</i>	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.
<i>Accrued Service</i>	Service credited under the fund which was rendered before the date of the actuarial valuation.
<i>Actuarial Equivalent</i>	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.
<i>Actuarial Cost Method</i>	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.
<i>Actuarial Gain (Loss)</i>	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.
<i>Actuarial Present Value (APV)</i>	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.
<i>Actuarial Valuation</i>	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.
<i>Actuarial Valuation Date</i>	The date as of which an actuarial valuation is performed.
<i>Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)</i>	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)

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

Glossary of Terms (Concluded)

Total Pension Expense

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

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

Total Pension Liability (TPL)

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

Unfunded Actuarial Accrued Liability (UAAL)

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

Valuation Assets

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