

Village of Alsip Regular

GASB Statement No. 68 Employer Reporting
Accounting Schedules
December 31, 2019



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March 26, 2020

Village of Alsip
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 Village of Alsip only in its entirety and only with the permission of Village of Alsip. 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 Village of Alsip. 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	April 30, 2020

Membership

Number of	
- Retirees and Beneficiaries	72
- Inactive, Non-Retired Members	45
- Active Members	49
- Total	166
Covered Valuation Payroll ⁽¹⁾	\$ 2,796,682

Net Pension Liability

Total Pension Liability/(Asset)	\$ 19,823,683
Plan Fiduciary Net Position	19,105,064
Net Pension Liability/(Asset)	\$ 718,619
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	96.37%
Net Pension Liability as a Percentage of Covered Valuation Payroll	25.70%

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)	\$ 92,108
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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	\$ 35,479	\$ 222,389
Changes in assumptions	257,848	184,487
Net difference between projected and actual earnings on pension plan investments	1,483,184	2,310,051
Total	\$ 1,776,511	\$ 2,716,927

⁽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	\$	286,921
2. Interest on the Total Pension Liability		1,374,987
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(125,852)
5. Projected Earnings on Plan Investments (made negative for addition here)		(1,185,058)
6. Other Changes in Plan Fiduciary Net Position		(45,731)
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		(192,238)
8. Recognition of Outflow (Inflow) of Resources due to Assets		(20,921)
9. Total Pension Expense/(Income)	\$	92,108

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 603.70 years. Additionally, the total plan membership (active employees and inactive employees) was 162. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 3.7265 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	\$ 5,295
2. Assumption Changes (gains) or losses	\$ 0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	3.7265
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	\$ 1,421
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	<u>\$ 1,421</u>
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	\$ 3,874
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	<u>\$ 3,874</u>

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (2,030,534)
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	\$ (406,107)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (1,624,427)

* 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	\$ 203,200	\$ 395,438	\$ (192,238)
2. Due to Assets	727,997	748,918	(20,921)
3. Total	\$ 931,197	\$ 1,144,356	\$ (213,159)

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	\$ 69,700	\$ 256,940	\$ (187,240)
2. Assumption changes	133,500	138,498	\$ (4,998)
3. Net difference between projected and actual earnings on pension plan investments	727,997	748,918	(20,921)
4. Total	\$ 931,197	\$ 1,144,356	\$ (213,159)

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	\$ 35,479	\$ 222,389	\$ (186,910)
2. Assumption changes	257,848	184,487	73,361
3. Net difference between projected and actual earnings on pension plan investments	1,483,184	2,310,051	(826,867)
4. Total	\$ 1,776,511	\$ 2,716,927	\$ (940,416)

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	\$ (363,334)
2021	(253,247)
2022	82,271
2023	(406,106)
2024	0
Thereafter	0
Total	\$ (940,416)

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	\$ 0	1.0000	\$ 0	\$ 0	0.0000
2015	(1,141,983)	4.3947	(102,563)	0	0.0000
2016	304,721	4.4629	68,279	31,605	0.4629
2017	(629,401)	4.3995	(143,062)	(200,215)	1.3995
2018	(44,804)	3.9596	(11,315)	(22,174)	1.9596
2019	5,295	3.7265	1,421	3,874	2.7265
Total			\$ (187,240)	\$ (186,910)	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	\$ 0	1.0000	\$ 0	\$ 0	0.0000
2015	21,342	4.3947	1,918	0	0.0000
2016	(44,517)	4.4629	(9,975)	(4,617)	0.4629
2017	(565,439)	4.3995	(128,523)	(179,870)	1.3995
2018	521,012	3.9596	131,582	257,848	1.9596
2019	0	3.7265	0	0	2.7265
Total			\$ (4,998)	\$ 73,361	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2015	\$ 1,097,502	5.0000	\$ 219,502	\$ 0	0.0000
2016	105,748	5.0000	21,150	21,148	1.0000
2017	(1,714,057)	5.0000	(342,811)	(685,624)	2.0000
2018	2,436,726	5.0000	487,345	1,462,036	3.0000
2019	(2,030,534)	5.0000	(406,107)	(1,624,427)	4.0000
Total			\$ (20,921)	\$ (826,867)	

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	\$ 286,921
2. Interest on the Total Pension Liability	1,374,987
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	5,295
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(1,330,794)
7. Net change in total pension liability	\$ 336,409
8. Total pension liability – beginning	19,487,274
9. Total pension liability – ending	<u><u>\$ 19,823,683</u></u>

B. Plan fiduciary net position

1. Contributions – employer	\$ 246,900
2. Contributions – employee	125,852
3. Net investment income	3,215,592
4. Benefit payments, including refunds of employee contributions	(1,330,794)
5. Other (Net Transfer)	45,731
6. Net change in plan fiduciary net position	\$ 2,303,281
7. Plan fiduciary net position – beginning	16,801,783
8. Plan fiduciary net position – ending	<u><u>\$ 19,105,064</u></u>

C. Net pension liability/(asset)

\$ 718,619

D. Plan fiduciary net position as a percentage of the total pension liability

96.37%

E. Covered Valuation payroll

\$ 2,796,682

F. Net pension liability as a percentage of covered valuation payroll

25.70%

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	\$ 22,288,977	\$ 19,823,683	\$ 17,802,122
Plan Fiduciary Net Position	19,105,064	19,105,064	19,105,064
Net Pension Liability/(Asset)	\$ 3,183,913	\$ 718,619	\$ (1,302,942)

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	\$ 286,921	\$ 298,594	\$ 348,838	\$ 350,949	\$ 338,319					
Interest on the Total Pension Liability	1,374,987	1,350,147	1,382,356	1,310,052	1,342,439					
Benefit Changes	0	0	0	0	0					
Difference between Expected and Actual Experience	5,295	(44,804)	(629,401)	304,721	(1,141,983)					
Assumption Changes	0	521,012	(565,439)	(44,517)	21,342					
Benefit Payments and Refunds	(1,330,794)	(980,672)	(900,714)	(1,104,864)	(846,048)					
Net Change in Total Pension Liability	336,409	1,144,277	(364,360)	816,341	(285,931)					
Total Pension Liability - Beginning	19,487,274	18,342,997	18,707,357	17,891,016	18,176,947					
Total Pension Liability - Ending (a)	\$ 19,823,683	\$ 19,487,274	\$ 18,342,997	\$ 18,707,357	\$ 17,891,016					
Plan Fiduciary Net Position										
Employer Contributions	\$ 246,900	\$ 344,230	\$ 340,719	\$ 589,469	\$ 628,890					
Employee Contributions	125,852	152,794	147,870	153,572	146,561					
Pension Plan Net Investment Income	3,215,592	(1,071,695)	2,911,791	1,046,264	80,013					
Benefit Payments and Refunds	(1,330,794)	(980,672)	(900,714)	(1,104,864)	(846,048)					
Other	45,731	(170,228)	(296,330)	197,015	(604,709)					
Net Change in Plan Fiduciary Net Position	2,303,281	(1,725,571)	2,203,336	881,456	(595,293)					
Plan Fiduciary Net Position - Beginning	16,801,783	18,527,354	16,324,018	15,442,562	16,037,855					
Plan Fiduciary Net Position - Ending (b)	\$ 19,105,064	\$ 16,801,783	\$ 18,527,354	\$ 16,324,018	\$ 15,442,562					
Net Pension Liability/(Asset) - Ending (a) - (b)	718,619	2,685,491	(184,357)	2,383,339	2,448,454					
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	96.37%	86.22 %	101.01 %	87.26%	86.31 %					
Covered Valuation Payroll	\$ 2,796,682	\$ 3,063,320	\$ 3,164,658	\$ 3,409,309	\$ 3,256,920					
Net Pension Liability as a Percentage										
of Covered Valuation Payroll	25.70%	87.67 %	(5.83)%	69.91%	75.18 %					



Multiyear Schedule of Contributions

Last 10 Calendar Years

Calendar Year Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Valuation Payroll	Actual Contribution as a % of Covered Valuation Payroll
2015	\$ 545,860	\$ 628,890	\$ (83,030)	\$ 3,256,920	19.31%
2016	589,470	589,469	1	3,409,309	17.29%
2017	341,467	340,719	748	3,164,658	10.77%
2018	343,092	344,230	(1,138)	3,063,320	11.24%
2019	220,099 *	246,900	(26,801)	2,796,682	8.83%

* Estimated based on contribution rate of 7.87% and covered valuation payroll of \$2,796,682.
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)	\$	2,581,296
2. Employer Contribution Reserve (EAF assets from IMRF)	\$	4,677,439
3. Annuitant Reserve	\$	11,833,788
4. Miscellaneous Adjustment*	\$	12,541
5. Net Market Value	\$	19,105,064

* 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	\$	220,098
b.) Accelerated payments and Reserve Payments		26,802
	\$	246,900

2. Member

a.) Wage Reporting	\$	125,852
b.) Member Payments (i.e. ERI, Pension Payments)		-
Sub-total (Amount used for valuation on Schedule of Changes Page 10)	\$	125,852
c.) Voluntary Additional Plan	\$	47,813
Total Member Contributions (a+b+c)	\$	173,665

Total Employer and Member Contributions (1+2)	\$	420,565
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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.
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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	\$ 2,796,682				
2020	2,799,534	\$ 125,979	\$ 172,206	\$ 105,654	\$ 403,839
2021	2,706,262	121,782	166,469	91,128	379,378
2022	2,626,183	118,178	160,233	74,482	352,893
2023	2,538,481	114,232	155,135	55,438	324,805
2024	2,456,521	110,543	150,126	33,675	294,345
2025	2,391,470	107,616	145,913	34,517	288,046
2026	2,333,577	105,011	142,148	35,380	282,539
2027	2,280,506	102,623	138,687	36,264	277,574
2028	2,203,512	99,158	133,785	37,171	270,114
2029	2,116,290	95,233	128,067	38,100	261,400
2030	2,052,354	92,356	123,584	39,053	254,993
2031	1,995,998	89,820	119,594	40,029	249,442
2032	1,935,997	87,120	115,612	41,030	243,762
2033	1,872,891	84,280	111,470	42,055	237,805
2034	1,809,230	81,415	107,140	43,107	231,662
2035	1,744,708	78,512	102,797	44,184	225,493
2036	1,678,797	75,546	98,244	45,289	219,079
2037	1,603,256	72,147	93,344	46,421	211,911
2038	1,512,696	68,071	87,468	47,582	203,121
2039	1,411,658	63,525	80,781	48,771	193,076
2040	1,313,777	59,120	74,262	49,991	183,373
2041	1,205,012	54,226	67,513	51,240	172,979
2042	1,085,637	48,854	59,959	52,521	161,334
2043	975,052	43,877	52,782	0	96,659
2044	868,903	39,101	46,083	0	85,183
2045	775,969	34,919	40,457	0	75,376
2046	692,198	31,149	35,399	0	66,548
2047	618,724	27,843	30,963	0	58,806
2048	538,497	24,232	26,465	0	50,697
2049	444,866	20,019	21,508	0	41,527
2050	374,133	16,836	17,865	0	34,701
2051	292,546	13,165	13,823	0	26,988
2052	186,686	8,401	8,821	0	17,222
2053	119,944	5,397	5,835	0	11,232
2054	86,946	3,913	4,360	0	8,272
2055	65,207	2,934	3,315	0	6,249
2056	56,172	2,528	2,878	0	5,406
2057	46,360	2,086	2,329	0	4,415
2058	37,107	1,670	1,824	0	3,493
2059	26,439	1,190	1,281	0	2,471
2060	12,868	579	627	0	1,206
2061	5,557	250	295	0	545
2062	2,830	127	168	0	295
2063	1,445	65	91	0	156
2064	497	22	32	0	55
2065	375	17	26	0	43
2066	168	8	11	0	19
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	\$ 19,105,064	\$ 403,839	\$ 1,099,605	\$ 1,360,337	\$ 19,769,635
2021	19,769,635	379,379	1,121,966	1,406,851	20,433,899
2022	20,433,899	352,894	1,151,683	1,453,008	21,088,118
2023	21,088,118	324,805	1,192,057	1,498,001	21,718,867
2024	21,718,867	294,345	1,225,759	1,541,445	22,328,897
2025	22,328,897	288,045	1,254,729	1,584,416	22,946,630
2026	22,946,630	282,538	1,292,569	1,627,658	23,564,257
2027	23,564,257	277,574	1,358,061	1,669,926	24,153,697
2028	24,153,697	270,114	1,434,805	1,709,662	24,698,667
2029	24,698,667	261,401	1,493,331	1,746,777	25,213,514
2030	25,213,514	254,993	1,530,335	1,782,557	25,720,729
2031	25,720,729	249,442	1,561,550	1,818,021	26,226,643
2032	26,226,643	243,762	1,601,238	1,853,084	26,722,251
2033	26,722,251	237,806	1,637,804	1,887,501	27,209,754
2034	27,209,754	231,662	1,673,742	1,921,346	27,689,021
2035	27,689,021	225,493	1,714,688	1,954,415	28,154,242
2036	28,154,242	219,079	1,762,422	1,986,215	28,597,114
2037	28,597,114	211,911	1,811,320	2,016,327	29,014,032
2038	29,014,032	203,121	1,869,703	2,044,161	29,391,610
2039	29,391,610	193,077	1,935,006	2,068,852	29,718,532
2040	29,718,532	183,373	1,985,733	2,090,401	30,006,573
2041	30,006,573	172,979	2,062,425	2,108,183	30,225,310
2042	30,225,310	161,334	2,137,860	2,120,940	30,369,724
2043	30,369,724	96,659	2,197,422	2,126,985	30,395,946
2044	30,395,946	85,183	2,293,948	2,125,039	30,312,220
2045	30,312,220	75,376	2,342,637	2,116,886	30,161,844
2046	30,161,844	66,548	2,406,334	2,103,400	29,925,459
2047	29,925,459	58,806	2,448,237	2,084,494	29,620,522
2048	29,620,522	50,697	2,493,725	2,060,478	29,237,972
2049	29,237,972	41,527	2,530,738	2,031,098	28,779,859
2050	28,779,859	34,701	2,539,207	1,997,340	28,272,692
2051	28,272,692	26,988	2,594,366	1,958,331	27,663,645
2052	27,663,645	17,222	2,658,823	1,911,532	26,933,576
2053	26,933,576	11,232	2,664,685	1,858,179	26,138,302
2054	26,138,302	8,272	2,643,076	1,801,186	25,304,685
2055	25,304,685	6,249	2,605,280	1,742,023	24,447,677
2056	24,447,677	5,406	2,560,487	1,681,455	23,574,052
2057	23,574,052	4,415	2,519,908	1,619,528	22,678,087
2058	22,678,087	3,493	2,473,450	1,556,192	21,764,322
2059	21,764,322	2,471	2,429,095	1,491,487	20,829,185
2060	20,829,185	1,206	2,383,505	1,425,269	19,872,155
2061	19,872,155	545	2,327,266	1,357,863	18,903,298
2062	18,903,298	295	2,262,786	1,289,909	17,930,716
2063	17,930,716	156	2,195,889	1,221,774	16,956,757
2064	16,956,757	55	2,125,571	1,153,663	15,984,904
2065	15,984,904	43	2,052,532	1,085,805	15,018,220
2066	15,018,220	19	1,977,227	1,018,401	14,059,413
2067	14,059,413	0	1,899,129	951,668	13,111,952
2068	13,111,952	0	1,818,514	885,849	12,179,287
2069	12,179,287	0	1,735,626	821,183	11,264,844

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	\$ 11,264,844	\$ 0	\$ 1,650,597	\$ 757,914	\$ 10,372,160
2071	10,372,160	0	1,563,694	696,289	9,504,755
2072	9,504,755	0	1,475,258	636,552	8,666,050
2073	8,666,050	0	1,385,601	578,939	7,859,388
2074	7,859,388	0	1,295,090	523,680	7,087,978
2075	7,087,978	0	1,204,227	470,989	6,354,740
2076	6,354,740	0	1,113,556	421,058	5,662,242
2077	5,662,242	0	1,023,617	374,056	5,012,681
2078	5,012,681	0	934,980	330,119	4,407,820
2079	4,407,820	0	848,302	289,354	3,848,872
2080	3,848,872	0	764,240	251,824	3,336,457
2081	3,336,457	0	683,460	217,551	2,870,548
2082	2,870,548	0	606,514	186,513	2,450,548
2083	2,450,548	0	533,846	158,651	2,075,353
2084	2,075,353	0	465,963	133,867	1,743,258
2085	1,743,258	0	403,241	112,024	1,452,041
2086	1,452,041	0	345,884	92,954	1,199,111
2087	1,199,111	0	293,981	76,465	981,596
2088	981,596	0	247,528	62,350	796,417
2089	796,417	0	206,430	50,388	640,376
2090	640,376	0	170,510	40,354	510,220
2091	510,220	0	139,477	32,023	402,766
2092	402,766	0	112,965	25,177	314,978
2093	314,978	0	90,592	19,609	243,996
2094	243,996	0	71,945	15,127	187,178
2095	187,178	0	56,576	11,555	142,158
2096	142,158	0	44,044	8,738	106,851
2097	106,851	0	33,940	6,538	79,449
2098	79,449	0	25,890	4,838	58,397
2099	58,397	0	19,539	3,538	42,396
2100	42,396	0	14,576	2,555	30,375
2101	30,375	0	10,742	1,820	21,453
2102	21,453	0	7,814	1,277	14,915
2103	14,915	0	5,604	882	10,193
2104	10,193	0	3,956	598	6,836
2105	6,836	0	2,744	398	4,489
2106	4,489	0	1,867	259	2,881
2107	2,881	0	1,242	165	1,804
2108	1,804	0	808	102	1,098
2109	1,098	0	510	61	649
2110	649	0	313	36	372
2111	372	0	187	20	205
2112	205	0	107	11	109
2113	109	0	59	6	55
2114	55	0	31	3	27
2115	27	0	16	1	13
2116	13	0	8	1	6
2117	6	0	4	0	2
2118	2	0	2	0	1
2119	1	0	1	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 ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
2020	\$ 19,105,064	\$ 1,099,605	\$ 1,099,605	\$ 0	\$ 1,061,788	\$ 0	\$ 1,061,788
2021	19,769,635	1,121,966	1,121,966	0	1,010,145	0	1,010,145
2022	20,433,899	1,151,683	1,151,683	0	966,806	0	966,806
2023	21,088,118	1,192,057	1,192,057	0	933,054	0	933,054
2024	21,718,867	1,225,759	1,225,759	0	894,576	0	894,576
2025	22,328,897	1,254,729	1,254,729	0	853,817	0	853,817
2026	22,946,630	1,292,569	1,292,569	0	820,109	0	820,109
2027	23,564,257	1,358,061	1,358,061	0	803,414	0	803,414
2028	24,153,697	1,434,805	1,434,805	0	791,436	0	791,436
2029	24,698,667	1,493,331	1,493,331	0	768,036	0	768,036
2030	25,213,514	1,530,335	1,530,335	0	733,863	0	733,863
2031	25,720,729	1,561,550	1,561,550	0	698,211	0	698,211
2032	26,226,643	1,601,238	1,601,238	0	667,559	0	667,559
2033	26,722,251	1,637,804	1,637,804	0	636,646	0	636,646
2034	27,209,754	1,673,742	1,673,742	0	606,635	0	606,635
2035	27,689,021	1,714,688	1,714,688	0	579,465	0	579,465
2036	28,154,242	1,762,422	1,762,422	0	555,334	0	555,334
2037	28,597,114	1,811,320	1,811,320	0	532,160	0	532,160
2038	29,014,032	1,869,703	1,869,703	0	512,180	0	512,180
2039	29,391,610	1,935,006	1,935,006	0	494,237	0	494,237
2040	29,718,532	1,985,733	1,985,733	0	472,907	0	472,907
2041	30,006,573	2,062,425	2,062,425	0	457,969	0	457,969
2042	30,225,310	2,137,860	2,137,860	0	442,629	0	442,629
2043	30,369,724	2,197,422	2,197,422	0	424,206	0	424,206
2044	30,395,946	2,293,948	2,293,948	0	412,905	0	412,905
2045	30,312,220	2,342,637	2,342,637	0	393,164	0	393,164
2046	30,161,844	2,406,334	2,406,334	0	376,554	0	376,554
2047	29,925,459	2,448,237	2,448,237	0	357,213	0	357,213
2048	29,620,522	2,493,725	2,493,725	0	339,254	0	339,254
2049	29,237,972	2,530,738	2,530,738	0	321,016	0	321,016
2050	28,779,859	2,539,207	2,539,207	0	300,317	0	300,317
2051	28,272,692	2,594,366	2,594,366	0	286,099	0	286,099
2052	27,663,645	2,658,823	2,658,823	0	273,387	0	273,387
2053	26,933,576	2,664,685	2,664,685	0	255,468	0	255,468
2054	26,138,302	2,643,076	2,643,076	0	236,267	0	236,267
2055	25,304,685	2,605,280	2,605,280	0	217,145	0	217,145
2056	24,447,677	2,560,487	2,560,487	0	198,985	0	198,985
2057	23,574,052	2,519,908	2,519,908	0	182,594	0	182,594
2058	22,678,087	2,473,450	2,473,450	0	167,112	0	167,112
2059	21,764,322	2,429,095	2,429,095	0	153,021	0	153,021
2060	20,829,185	2,383,505	2,383,505	0	139,999	0	139,999
2061	19,872,155	2,327,266	2,327,266	0	127,455	0	127,455
2062	18,903,298	2,262,786	2,262,786	0	115,547	0	115,547
2063	17,930,716	2,195,889	2,195,889	0	104,551	0	104,551
2064	16,956,757	2,125,571	2,125,571	0	94,362	0	94,362
2065	15,984,904	2,052,532	2,052,532	0	84,960	0	84,960
2066	15,018,220	1,977,227	1,977,227	0	76,310	0	76,310
2067	14,059,413	1,899,129	1,899,129	0	68,341	0	68,341
2068	13,111,952	1,818,514	1,818,514	0	61,017	0	61,017
2069	12,179,287	1,735,626	1,735,626	0	54,299	0	54,299

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.



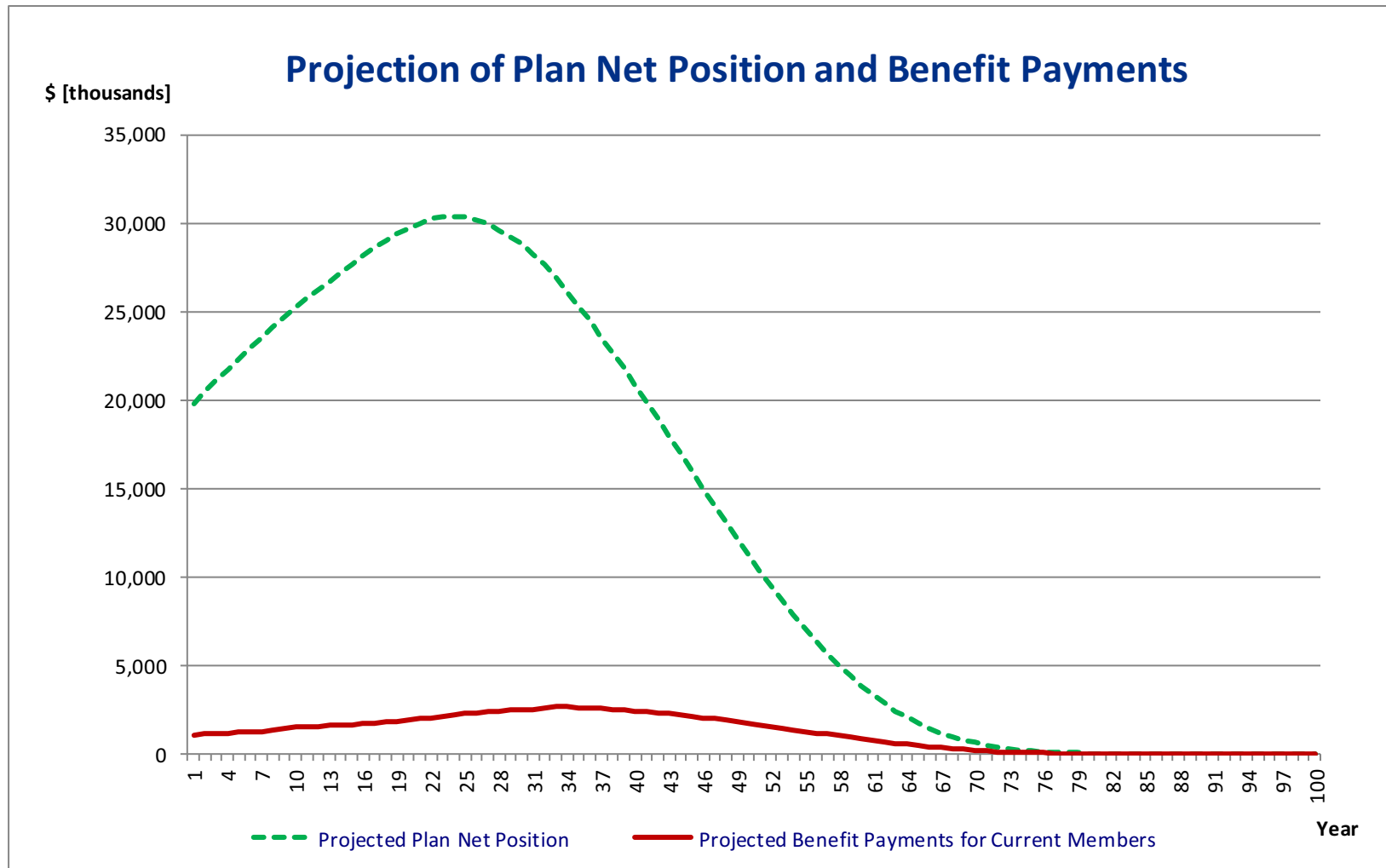
Single Discount Rate Development

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 ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
2070	\$ 11,264,844	\$ 1,650,597	\$ 1,650,597	\$ 0	\$ 48,148	\$ 0	\$ 48,148
2071	10,372,160	1,563,694	1,563,694	0	42,530	0	42,530
2072	9,504,755	1,475,258	1,475,258	0	37,412	0	37,412
2073	8,666,050	1,385,601	1,385,601	0	32,763	0	32,763
2074	7,859,388	1,295,090	1,295,090	0	28,553	0	28,553
2075	7,087,978	1,204,227	1,204,227	0	24,755	0	24,755
2076	6,354,740	1,113,556	1,113,556	0	21,343	0	21,343
2077	5,662,242	1,023,617	1,023,617	0	18,293	0	18,293
2078	5,012,681	934,980	934,980	0	15,580	0	15,580
2079	4,407,820	848,302	848,302	0	13,180	0	13,180
2080	3,848,872	764,240	764,240	0	11,071	0	11,071
2081	3,336,457	683,460	683,460	0	9,232	0	9,232
2082	2,870,548	606,514	606,514	0	7,639	0	7,639
2083	2,450,548	533,846	533,846	0	6,269	0	6,269
2084	2,075,353	465,963	465,963	0	5,102	0	5,102
2085	1,743,258	403,241	403,241	0	4,117	0	4,117
2086	1,452,041	345,884	345,884	0	3,292	0	3,292
2087	1,199,111	293,981	293,981	0	2,609	0	2,609
2088	981,596	247,528	247,528	0	2,048	0	2,048
2089	796,417	206,430	206,430	0	1,593	0	1,593
2090	640,376	170,510	170,510	0	1,227	0	1,227
2091	510,220	139,477	139,477	0	936	0	936
2092	402,766	112,965	112,965	0	707	0	707
2093	314,978	90,592	90,592	0	528	0	528
2094	243,996	71,945	71,945	0	391	0	391
2095	187,178	56,576	56,576	0	287	0	287
2096	142,158	44,044	44,044	0	208	0	208
2097	106,851	33,940	33,940	0	150	0	150
2098	79,449	25,890	25,890	0	106	0	106
2099	58,397	19,539	19,539	0	75	0	75
2100	42,396	14,576	14,576	0	52	0	52
2101	30,375	10,742	10,742	0	36	0	36
2102	21,453	7,814	7,814	0	24	0	24
2103	14,915	5,604	5,604	0	16	0	16
2104	10,193	3,956	3,956	0	11	0	11
2105	6,836	2,744	2,744	0	7	0	7
2106	4,489	1,867	1,867	0	4	0	4
2107	2,881	1,242	1,242	0	3	0	3
2108	1,804	808	808	0	2	0	2
2109	1,098	510	510	0	1	0	1
2110	649	313	313	0	1	0	1
2111	372	187	187	0	0	0	0
2112	205	107	107	0	0	0	0
2113	109	59	59	0	0	0	0
2114	55	31	31	0	0	0	0
2115	27	16	16	0	0	0	0
2116	13	8	8	0	0	0	0
2117	6	4	4	0	0	0	0
2118	2	2	2	0	0	0	0
2119	1	1	1	0	0	0	0
Totals					\$ 22,454,823	\$ -	\$ 22,454,823

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.





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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.