

Alsip Merrionette Pk Lib Dist Regular

GASB Statement No. 68 Employer Reporting

Accounting Schedules

December 31, 2018



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March 27, 2019

Alsip Merrionette Pk Lib Dist
Illinois Municipal Retirement Fund

Ladies and Gentlemen:

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

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

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

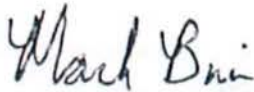
This report is based upon information, furnished to us by the Illinois Municipal Retirement Fund (IMRF), concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different than ours,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

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 Alsip Merrionette Pk Lib Dist. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Mark Buis and Francois Pieterse are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinions herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,



Mark Buis, FSA, EA, FCA, MAAA



Francois Pieterse, ASA, FCA, MAAA

MB/FP: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	24
- Inactive, Non-Retired Members	19
- Active Members	19
- Total	62
Covered Valuation Payroll ⁽¹⁾	\$ 897,579

Net Pension Liability

Total Pension Liability/(Asset)	\$ 4,983,177
Plan Fiduciary Net Position	4,206,636
Net Pension Liability/(Asset)	\$ 776,541
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	84.42%
Net Pension Liability as a Percentage of Covered Valuation Payroll	86.52%

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) \$ 154,103

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	\$ 2,635	\$ 105,036
Changes in assumptions	92,495	49,716
Net difference between projected and actual earnings on pension plan investments	522,788	259,360
Total	\$ 617,918	\$ 414,112

⁽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	\$ 83,336
2. Interest on the Total Pension Liability	349,605
3. Current-Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	(40,788)
5. Projected Earnings on Plan Investments (made negative for addition here)	(338,278)
6. Other Changes in Plan Fiduciary Net Position	74,960
7. Recognition of Outflow (Inflow) of Resources due to Liabilities	(72,134)
8. Recognition of Outflow (Inflow) of Resources due to Assets	97,402
9. Total Pension Expense/(Income)	<u>\$ 154,103</u>

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 184.19 years. Additionally, the total plan membership (active employees and inactive employees) was 63. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 2.9236 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	\$ (104,289)
2. Assumption Changes (gains) or losses	\$ 140,580
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees (in years)	2.9236
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	\$ (35,671)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$ 48,085
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$ 12,414
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	\$ (68,618)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$ 92,495
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$ 23,877

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ 573,361
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	\$ 114,672
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ 458,689

* 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	\$ 59,577	\$ 131,711	\$ (72,134)
2. Due to Assets	183,855	86,453	97,402
3. Total	\$ 243,432	\$ 218,164	\$ 25,268

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	\$ 10,993	\$ 75,350	\$ (64,357)
2. Assumption changes	48,584	56,361	\$ (7,777)
3. Net difference between projected and actual earnings on pension plan investments	183,855	86,453	97,402
4. Total	\$ 243,432	\$ 218,164	\$ 25,268

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	\$ 2,635	\$ 105,036	\$ (102,401)
2. Assumption changes	92,495	49,716	42,779
3. Net difference between projected and actual earnings on pension plan investments	522,788	259,360	263,428
4. Total	\$ 617,918	\$ 414,112	\$ 203,806

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		\$ 15,957
2020		44,958
2021		28,218
2022		114,673
2023		0
Thereafter		0
Total		\$ 203,806

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	\$	83,336
2. Interest on the Total Pension Liability		349,605
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		(104,289)
5. Changes of assumptions		140,580
6. Benefit payments, including refunds of employee contributions		(211,566)
7. Net change in total pension liability	\$	257,666
8. Total pension liability – beginning		4,725,511
9. Total pension liability – ending	\$	<u>4,983,177</u>
B. Plan fiduciary net position		
1. Contributions – employer	\$	108,428
2. Contributions – employee		40,788
3. Net investment income		(235,083)
4. Benefit payments, including refunds of employee contributions		(211,566)
5. Other (Net Transfer)		(74,960)
6. Net change in plan fiduciary net position	\$	(372,393)
7. Plan fiduciary net position – beginning		4,579,029
8. Plan fiduciary net position – ending	\$	<u>4,206,636</u>
C. Net pension liability/(asset)	\$	<u>776,541</u>
D. Plan fiduciary net position as a percentage of the total pension liability		
		84.42%
E. Covered Valuation payroll	\$	897,579
F. Net pension liability as a percentage of covered valuation payroll		
		86.52%

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	\$ 5,621,245	\$ 4,983,177	\$ 4,459,956
Plan Fiduciary Net Position	4,206,636	4,206,636	4,206,636
Net Pension Liability/(Asset)	\$ 1,414,609	\$ 776,541	\$ 253,320

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	\$ 83,336	\$ 83,677	\$ 92,592	\$ 88,511	\$ 89,003					
Interest on the Total Pension Liability	349,605	352,926	334,517	315,641	284,241					
Benefit Changes	0	0	0	0	0					
Difference between Expected and Actual Experience	(104,289)	(115,776)	26,227	35,073	45,280					
Assumption Changes	140,580	(154,375)	(11,516)	5,578	183,111					
Benefit Payments and Refunds	(211,566)	(209,566)	(198,095)	(179,626)	(174,571)					
Net Change in Total Pension Liability	257,666	(43,114)	243,725	265,177	427,064					
Total Pension Liability - Beginning	4,725,511	4,768,625	4,524,900	4,259,723	3,832,659					
Total Pension Liability - Ending (a)	\$ 4,983,177	\$ 4,725,511	\$ 4,768,625	\$ 4,524,900	\$ 4,259,723					
Plan Fiduciary Net Position										
Employer Contributions	\$ 108,428	\$ 97,054	\$ 108,974	\$ 110,794	\$ 100,218					
Employee Contributions	40,788	37,521	36,565	39,854	34,928					
Pension Plan Net Investment Income	(235,083)	730,762	262,082	19,042	218,328					
Benefit Payments and Refunds	(211,566)	(209,566)	(198,095)	(179,626)	(174,571)					
Other	(74,960)	(188,358)	59,082	29,998	45,191					
Net Change in Plan Fiduciary Net Position	(372,393)	467,413	268,608	20,062	224,094					
Plan Fiduciary Net Position - Beginning	4,579,029	4,111,616	3,843,008	3,822,946	3,598,852					
Plan Fiduciary Net Position - Ending (b)	\$ 4,206,636	\$ 4,579,029	\$ 4,111,616	\$ 3,843,008	\$ 3,822,946					
Net Pension Liability/(Asset) - Ending (a) - (b)	776,541	146,482	657,009	681,892	436,777					
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	84.42%	96.90 %	86.22 %	84.93%	89.75 %					
Covered Valuation Payroll	\$ 897,579	\$ 833,790	\$ 812,561	\$ 885,645	\$ 800,174					
Net Pension Liability as a Percentage of Covered Valuation Payroll	86.52%	17.57 %	80.86 %	76.99%	54.59 %					

Multiyear Schedule of Contributions

Last 10 Calendar Years

Calendar Year Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Valuation Payroll	Actual Contribution as a % of Covered Valuation Payroll
2014	\$ 95,861	\$ 100,218	\$ (4,357)	\$ 800,174	12.52%
2015	110,794	110,794	0	885,645	12.51%
2016	99,620	108,974	(9,354)	812,561	13.41%
2017	97,053	97,054	(1)	833,790	11.64%
2018	108,428 *	108,428	0	897,579	12.08%

* Estimated based on contribution rate of 12.08% and covered valuation payroll of \$897,579.
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)	\$ 960,287
2. Employer Contribution Reserve (EAF assets from IMRF)	\$ 1,254,567
3. Annuitant Reserve	\$ 1,980,160
4. Miscellaneous Adjustment*	\$ 11,622
5. Net Market Value	\$ 4,206,636

* 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	\$ 108,428
b.) Accelerated payments and Reserve Payments	-
	\$ 108,428

2. Member

a.) Wage Reporting	\$ 40,391
b.) Member Payments (i.e. ERI, Pension Payments)	397
Sub-total (Amount used for valuation on Schedule of Changes Page 10)	\$ 40,788
c.) Voluntary Additional Plan	\$ 26,207
Total Member Contributions (a+b+c)	\$ 66,995

Total Employer and Member Contributions (1+2)	\$ 175,423
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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	3.39% 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.
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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	\$ 897,579				
2019	883,432	\$ 39,754	\$ 51,407	\$ 35,315	\$ 126,476
2020	823,396	37,053	52,203	40,346	129,602
2021	770,043	34,652	48,357	45,919	128,928
2022	720,022	32,401	45,144	52,099	129,644
2023	675,630	30,403	42,293	58,960	131,656
2024	632,983	28,484	39,433	60,434	128,351
2025	592,393	26,658	36,727	61,945	125,329
2026	557,571	25,091	34,344	63,494	122,929
2027	527,805	23,751	32,246	65,081	121,079
2028	500,030	22,501	30,349	66,708	119,558
2029	471,364	21,211	28,373	68,376	117,960
2030	444,634	20,008	26,497	70,085	116,590
2031	423,879	19,075	24,963	71,837	115,874
2032	405,999	18,270	23,706	73,633	115,609
2033	389,786	17,540	22,564	75,474	115,579
2034	377,868	17,004	21,647	77,361	116,012
2035	370,499	16,672	21,077	79,295	117,044
2036	364,807	16,416	20,607	81,277	118,300
2037	356,499	16,042	20,066	83,309	119,418
2038	347,223	15,625	19,405	85,392	120,422
2039	339,667	15,285	18,812	87,527	121,624
2040	332,647	14,969	18,290	89,715	122,974
2041	326,831	14,707	17,839	91,958	124,505
2042	322,186	14,498	17,457	94,257	126,212
2043	312,215	14,050	16,823	0	30,872
2044	293,851	13,223	15,686	0	28,909
2045	277,008	12,465	14,537	0	27,003
2046	240,320	10,814	12,395	0	23,210
2047	195,717	8,807	10,075	0	18,882
2048	171,669	7,725	8,889	0	16,614
2049	152,422	6,859	7,801	0	14,660
2050	137,832	6,202	6,957	0	13,160
2051	111,262	5,007	5,493	0	10,500
2052	82,412	3,709	4,069	0	7,778
2053	70,891	3,190	3,550	0	6,740
2054	64,209	2,889	3,190	0	6,079
2055	49,859	2,244	2,427	0	4,670
2056	34,136	1,536	1,661	0	3,198
2057	21,600	972	1,073	0	2,045
2058	9,982	449	518	0	967
2059	6,147	277	367	0	644
2060	4,446	200	291	0	491
2061	3,447	155	234	0	389
2062	2,642	119	182	0	301
2063	2,012	91	138	0	228
2064	1,231	55	85	0	140
2065	581	26	40	0	66
2066	462	21	31	0	52
2067	367	17	25	0	41
2068	291	13	20	0	33

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	\$ 133	\$ 6	\$ 9	\$ 0	15
2070	0	0	0	0	0
2071	0	0	0	0	0
2072	0	0	0	0	0
2073	0	0	0	0	0
2074	0	0	0	0	0
2075	0	0	0	0	0
2076	0	0	0	0	0
2077	0	0	0	0	0
2078	0	0	0	0	0
2079	0	0	0	0	0
2080	0	0	0	0	0
2081	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	\$ 4,206,636	\$ 126,476	\$ 232,814	\$ 301,194	\$ 4,401,491
2020	4,401,491	129,602	256,599	314,585	4,589,079
2021	4,589,079	128,928	278,155	327,393	4,767,246
2022	4,767,246	129,644	300,369	339,545	4,936,066
2023	4,936,066	131,657	320,399	351,143	5,098,467
2024	5,098,467	128,352	339,949	362,103	5,248,972
2025	5,248,972	125,329	359,710	372,203	5,386,794
2026	5,386,794	122,929	377,950	381,460	5,513,233
2027	5,513,233	121,079	393,673	390,001	5,630,640
2028	5,630,640	119,558	409,892	397,881	5,738,187
2029	5,738,187	117,960	426,704	405,022	5,834,465
2030	5,834,465	116,590	442,154	411,404	5,920,305
2031	5,920,305	115,875	453,924	417,182	5,999,438
2032	5,999,438	115,610	464,208	422,544	6,073,383
2033	6,073,383	115,579	472,889	427,594	6,143,667
2034	6,143,667	116,012	478,294	432,513	6,213,898
2035	6,213,898	117,044	479,822	437,587	6,288,707
2036	6,288,707	118,300	480,416	443,034	6,369,625
2037	6,369,625	119,418	486,970	448,707	6,450,781
2038	6,450,781	120,422	491,559	454,463	6,534,107
2039	6,534,107	121,624	497,570	460,333	6,618,494
2040	6,618,494	122,974	502,491	466,324	6,705,302
2041	6,705,302	124,505	498,407	472,818	6,804,217
2042	6,804,217	126,212	492,436	480,262	6,918,255
2043	6,918,255	30,872	491,179	485,179	6,943,128
2044	6,943,128	28,909	507,568	486,329	6,950,798
2045	6,950,798	27,003	520,846	486,344	6,943,298
2046	6,943,298	23,210	541,940	484,914	6,909,482
2047	6,909,482	18,882	557,325	481,760	6,852,800
2048	6,852,800	16,614	563,100	477,364	6,783,678
2049	6,783,678	14,660	565,167	472,210	6,705,380
2050	6,705,380	13,160	560,011	466,664	6,625,192
2051	6,625,192	10,500	573,794	460,264	6,522,162
2052	6,522,162	7,778	579,757	452,485	6,402,668
2053	6,402,668	6,740	571,029	444,096	6,282,475
2054	6,282,475	6,079	560,308	435,740	6,163,985
2055	6,163,985	4,670	566,181	426,890	6,029,365
2056	6,029,365	3,198	567,720	417,023	5,881,865
2057	5,881,865	2,045	571,800	406,143	5,718,253
2058	5,718,253	967	571,190	394,264	5,542,295
2059	5,542,295	644	559,298	381,919	5,365,560
2060	5,365,560	491	546,935	369,541	5,188,658
2061	5,188,658	389	534,839	357,143	5,011,350
2062	5,011,350	301	523,407	344,692	4,832,937
2063	4,832,937	228	512,270	332,151	4,653,047
2064	4,653,047	140	501,958	319,473	4,470,702
2065	4,470,702	66	491,290	306,631	4,286,109
2066	4,286,109	52	480,481	293,632	4,099,311
2067	4,099,311	41	469,776	280,470	3,910,047
2068	3,910,047	33	459,062	267,130	3,718,148

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	\$ 3,718,148	\$ 15	\$ 448,464	\$ 253,594	\$ 3,523,293
2070	3,523,293	0	437,298	239,864	3,325,858
2071	3,325,858	0	425,508	225,970	3,126,320
2072	3,126,320	0	413,044	211,947	2,925,223
2073	2,925,223	0	399,742	197,842	2,723,323
2074	2,723,323	0	385,465	183,712	2,521,571
2075	2,521,571	0	370,118	169,632	2,321,085
2076	2,321,085	0	353,653	155,683	2,123,115
2077	2,123,115	0	336,079	141,956	1,928,993
2078	1,928,993	0	317,456	128,546	1,740,083
2079	1,740,083	0	297,893	115,546	1,557,735
2080	1,557,735	0	277,526	103,052	1,383,261
2081	1,383,261	0	256,514	91,151	1,217,898
2082	1,217,898	0	235,085	79,925	1,062,738
2083	1,062,738	0	213,503	69,444	918,680
2084	918,680	0	192,072	59,764	786,371
2085	786,371	0	171,090	50,918	666,200
2086	666,200	0	150,803	42,929	558,326
2087	558,326	0	131,452	35,797	462,671
2088	462,671	0	113,263	29,510	378,918
2089	378,918	0	96,429	24,037	306,525
2090	306,525	0	81,090	19,335	244,770
2091	244,770	0	67,316	15,348	192,802
2092	192,802	0	55,120	12,015	149,697
2093	149,697	0	44,490	9,268	114,475
2094	114,475	0	35,377	7,039	86,138
2095	86,138	0	27,685	5,259	63,712
2096	63,712	0	21,298	3,861	46,275
2097	46,275	0	16,092	2,782	32,965
2098	32,965	0	11,930	1,965	22,999
2099	22,999	0	8,667	1,359	15,691
2100	15,691	0	6,158	918	10,451
2101	10,451	0	4,273	606	6,784
2102	6,784	0	2,889	389	4,283
2103	4,283	0	1,901	243	2,626
2104	2,626	0	1,214	147	1,559
2105	1,559	0	751	86	894
2106	894	0	449	49	494
2107	494	0	258	27	262
2108	262	0	143	14	133
2109	133	0	75	7	66
2110	66	0	37	3	32
2111	32	0	19	2	15
2112	15	0	9	1	6
2113	6	0	4	0	2
2114	2	0	2	0	1
2115	1	0	1	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

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	\$ 4,206,636	\$ 232,814	\$ 232,814	\$ 0	\$ 224,808	\$ 0	\$ 224,808
2020	4,401,491	256,599	256,599	0	231,025	0	231,025
2021	4,589,079	278,155	278,155	0	233,503	0	233,503
2022	4,767,246	300,369	300,369	0	235,106	0	235,106
2023	4,936,066	320,399	320,399	0	233,831	0	233,831
2024	5,098,467	339,949	339,949	0	231,328	0	231,328
2025	5,248,972	359,710	359,710	0	228,229	0	228,229
2026	5,386,794	377,950	377,950	0	223,591	0	223,591
2027	5,513,233	393,673	393,673	0	217,149	0	217,149
2028	5,630,640	409,892	409,892	0	210,812	0	210,812
2029	5,738,187	426,704	426,704	0	204,623	0	204,623
2030	5,834,465	442,154	442,154	0	197,699	0	197,699
2031	5,920,305	453,924	453,924	0	189,242	0	189,242
2032	5,999,438	464,208	464,208	0	180,447	0	180,447
2033	6,073,383	472,889	472,889	0	171,395	0	171,395
2034	6,143,667	478,294	478,294	0	161,635	0	161,635
2035	6,213,898	479,822	479,822	0	151,191	0	151,191
2036	6,288,707	480,416	480,416	0	141,145	0	141,145
2037	6,369,625	486,970	486,970	0	133,399	0	133,399
2038	6,450,781	491,559	491,559	0	125,553	0	125,553
2039	6,534,107	497,570	497,570	0	118,498	0	118,498
2040	6,618,494	502,491	502,491	0	111,580	0	111,580
2041	6,705,302	498,407	498,407	0	103,192	0	103,192
2042	6,804,217	492,436	492,436	0	95,063	0	95,063
2043	6,918,255	491,179	491,179	0	88,411	0	88,411
2044	6,943,128	507,568	507,568	0	85,185	0	85,185
2045	6,950,798	520,846	520,846	0	81,504	0	81,504
2046	6,943,298	541,940	541,940	0	79,072	0	79,072
2047	6,909,482	557,325	557,325	0	75,820	0	75,820
2048	6,852,800	563,100	563,100	0	71,427	0	71,427
2049	6,783,678	565,167	565,167	0	66,843	0	66,843
2050	6,705,380	560,011	560,011	0	61,756	0	61,756
2051	6,625,192	573,794	573,794	0	58,999	0	58,999
2052	6,522,162	579,757	579,757	0	55,582	0	55,582
2053	6,402,668	571,029	571,029	0	51,045	0	51,045
2054	6,282,475	560,308	560,308	0	46,701	0	46,701
2055	6,163,985	566,181	566,181	0	44,000	0	44,000
2056	6,029,365	567,720	567,720	0	41,137	0	41,137
2057	5,881,865	571,800	571,800	0	38,632	0	38,632
2058	5,718,253	571,190	571,190	0	35,982	0	35,982
2059	5,542,295	559,298	559,298	0	32,851	0	32,851
2060	5,365,560	546,935	546,935	0	29,953	0	29,953
2061	5,188,658	534,839	534,839	0	27,311	0	27,311
2062	5,011,350	523,407	523,407	0	24,920	0	24,920
2063	4,832,937	512,270	512,270	0	22,741	0	22,741
2064	4,653,047	501,958	501,958	0	20,777	0	20,777
2065	4,470,702	491,290	491,290	0	18,961	0	18,961
2066	4,286,109	480,481	480,481	0	17,290	0	17,290
2067	4,099,311	469,776	469,776	0	15,762	0	15,762
2068	3,910,047	459,062	459,062	0	14,362	0	14,362

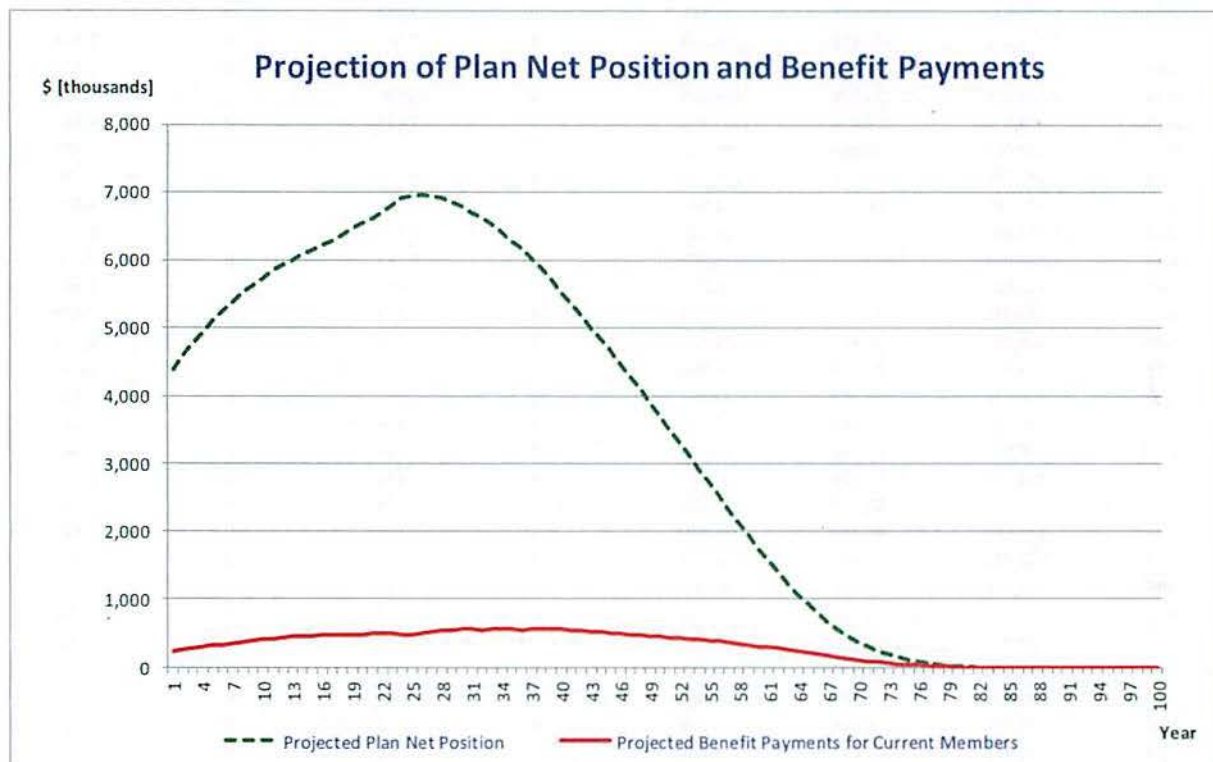
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Single Discount Rate Development

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	\$ 3,718,148	\$ 448,464	\$ 448,464	\$ 0	\$ 13,082	\$ 0	\$ 13,082
2070	3,523,293	437,298	437,298	0	11,894	0	11,894
2071	3,325,858	425,508	425,508	0	10,791	0	10,791
2072	3,126,320	413,044	413,044	0	9,767	0	9,767
2073	2,925,223	399,742	399,742	0	8,813	0	8,813
2074	2,723,323	385,465	385,465	0	7,924	0	7,924
2075	2,521,571	370,118	370,118	0	7,094	0	7,094
2076	2,321,085	353,653	353,653	0	6,320	0	6,320
2077	2,123,115	336,079	336,079	0	5,600	0	5,600
2078	1,928,993	317,456	317,456	0	4,932	0	4,932
2079	1,740,083	297,893	297,893	0	4,315	0	4,315
2080	1,557,735	277,526	277,526	0	3,749	0	3,749
2081	1,383,261	256,514	256,514	0	3,231	0	3,231
2082	1,217,898	235,085	235,085	0	2,761	0	2,761
2083	1,062,738	213,503	213,503	0	2,338	0	2,338
2084	918,680	192,072	192,072	0	1,961	0	1,961
2085	786,371	171,090	171,090	0	1,629	0	1,629
2086	666,200	150,803	150,803	0	1,338	0	1,338
2087	558,326	131,452	131,452	0	1,088	0	1,088
2088	462,671	113,263	113,263	0	874	0	874
2089	378,918	96,429	96,429	0	694	0	694
2090	306,525	81,090	81,090	0	544	0	544
2091	244,770	67,316	67,316	0	421	0	421
2092	192,802	55,120	55,120	0	321	0	321
2093	149,697	44,490	44,490	0	242	0	242
2094	114,475	35,377	35,377	0	179	0	179
2095	86,138	27,685	27,685	0	131	0	131
2096	63,712	21,298	21,298	0	94	0	94
2097	46,275	16,092	16,092	0	66	0	66
2098	32,965	11,930	11,930	0	46	0	46
2099	22,999	8,667	8,667	0	31	0	31
2100	15,691	6,158	6,158	0	21	0	21
2101	10,451	4,273	4,273	0	13	0	13
2102	6,784	2,889	2,889	0	8	0	8
2103	4,283	1,901	1,901	0	5	0	5
2104	2,626	1,214	1,214	0	3	0	3
2105	1,559	751	751	0	2	0	2
2106	894	449	449	0	1	0	1
2107	494	258	258	0	1	0	1
2108	262	143	143	0	0	0	0
2109	133	75	75	0	0	0	0
2110	66	37	37	0	0	0	0
2111	32	19	19	0	0	0	0
2112	15	9	9	0	0	0	0
2113	6	4	4	0	0	0	0
2114	2	2	2	0	0	0	0
2115	1	1	1	0	0	0	0
2116	0	0	0	0	0	0	0
2117	0	0	0	0	0	0	0
2118	0	0	0	0	0	0	0
Totals					\$ 5,673,396	\$ -	\$ 5,673,396

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)

<i>Amortization Payment</i>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<i>Amortization Method</i>	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).
<i>Cost-of-Living Adjustments</i>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i>	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.
<i>Covered Valuation Payroll</i>	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.
<i>Deferred Inflows and Outflows</i>	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.
<i>Discount Rate</i>	<p>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:</p> <ol style="list-style-type: none">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; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
<i>Entry Age Actuarial Cost Method (EAN)</i>	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.