

Village of Alsip Regular

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



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April 6, 2018

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 Nos. 67 and 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 IMRF, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different than ours, please let us know and do not use or distribute this report until those differences have been resolved to your satisfaction. This information was checked for internal consistency, but it was not audited.

This report complements the actuarial valuation report that was provided to the Illinois Municipal Retirement Fund and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 2017 for additional discussions of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, the information contained in this report is accurate, and fairly represents the GASB 68 information related to 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,

A handwritten signature in black ink that reads "Mark Buis".

Mark Buis, FSA, EA, FCA, MAAA

A handwritten signature in black ink that reads "Francois Pieterse".

Francois Pieterse, ASA, FCA, MAAA

SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2017

Actuarial Valuation Date	December 31, 2017
Measurement Date of the Net Pension Liability	December 31, 2017
Fiscal Year End	April 30, 2018

Membership

Number of	
- Retirees and Beneficiaries	66
- Inactive, Non-Retired Members	36
- Active Members	57
- Total	159
Covered Valuation Payroll ⁽¹⁾	\$ 3,164,658

Net Pension Liability

Total Pension Liability/(Asset)	\$ 18,342,997
Plan Fiduciary Net Position	18,527,354
Net Pension Liability/(Asset)	\$ (184,357)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	101.01%
Net Pension Liability as a Percentage of Covered Valuation Payroll	(5.83)%

Development of the Single Discount Rate as of December 31, 2017

Long-Term Expected Rate of Investment Return	7.50%
Long-Term Municipal Bond Rate ⁽²⁾	3.31%
Last year ending December 31 in the 2018 to 2117 projection period for which projected benefit payments are fully funded	2117
Resulting Single Discount Rate based on the above development	7.50%

Single Discount Rate calculated using December 31, 2016 Measurement Date 7.50%

Total Pension Expense/(Income) \$ 111,479

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	\$ 168,163	\$ 848,757
Changes in assumptions	6,774	461,483
Net difference between projected and actual earnings on pension plan investments	502,450	1,371,246
Total	\$ 677,387	\$ 2,681,486

⁽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 29, 2017. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax exempt securities.

Discussion

Accounting Standard

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

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

Financial Statements

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

Paragraph 57 of GASB Statement No. 68 says, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to IMRF subsequent to the measurement date of December 31, 2017.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the certain changes in the liability and investment experience.

Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to pensions.

In addition, GASB Statement No. 68 requires the notes of the financial statements for the employers to include certain additional information, including (page numbers refer to page numbers from this report unless specified otherwise):

- a description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs (please see pages B-1 - B-5 of the December 31, 2017 Annual Actuarial Valuation report dated March 22, 2018);
- the number and classes of employees covered by the benefit terms (page 1);
- for the current year, sources of changes in the net pension liability (page 10);
- significant assumptions and methods used to calculate the total pension liability (page 15);
- inputs to the single discount rate (page 16);
- certain information about mortality assumptions and the dates of experience studies (page 13 and page 15);
- the date of the valuation used to determine the total pension liability (page 1);
- information about changes of assumptions or other inputs and benefit terms (pages 13 and 15);
- the basis for determining contributions to the plan, including a description of the plan's funding policy, as well as member and employer contribution requirements (please see page A-3, B-5 and Section D of the December 31, 2017 Annual Actuarial Valuation report dated March 22, 2018, as well as page 13);
- the total pension liability, fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability (page 10);
- the net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes (page 10); and
- a description of the fund that administers the pension plan (to be provided by IMRF).

Required Supplementary Information

The financial statements of employers also include required supplementary information showing the 10-year fiscal history of:

- sources of changes in the net pension liability (page 11);
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll (page 11); and
- comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy (page 12).

These tables may be built prospectively as the information becomes available.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net pension liability and pension expense should be measured as of the employer's "measurement date" which may not be earlier than the employer's prior fiscal year-end date. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2017 and a measurement date of December 31, 2017.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects: (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the plan's projected fiduciary net position is not sufficient to pay benefits).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.50%; the municipal bond rate is 3.31% (based on the daily rate closest to but not later than the measurement date of the "20-Bond Go Index" described on page 1 and the resulting Single Discount Rate is 7.50%.

Other Observations

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

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.50% on the actuarial value of assets), it is expected that:

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

This funding policy results in a crossover date in 2117 and a discount rate of 7.50%. The projections in this report are strictly for the purposes of determining the GASB discount rate and are different from a funding projection for the ongoing plan.

Limitations of Assets as a Percent of Total Pension Liability Measurements

This report includes a measure of the plan fiduciary net position as a percent of total pension liability. Unless otherwise indicated, with regard to any such measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- (2) The measurement is inappropriate for assessing the need for or amount of future employer contributions.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded ratio measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, in other words of transferring the obligations to a unrelated third party in an arm's length market value type transaction.
- (2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amount of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon actuarial assumptions. A funded ratio measurement in this report of 100% is not synonymous with no required future contributions. If the funded ratio were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).

Limitation of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

SECTION B

FINANCIAL STATEMENTS

Pension Expense/(Income) Under GASB Statement No. 68

Calendar Year Ended December 31, 2017

A. Expense/(Income)

1. Service Cost	\$	348,838
2. Interest on the Total Pension Liability		1,382,356
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(147,870)
5. Projected Earnings on Plan Investments (made negative for addition here)		(1,197,734)
6. Other Changes in Plan Fiduciary Net Position		296,330
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		(468,280)
8. Recognition of Outflow (Inflow) of Resources due to Assets		(102,161)
9. Total Pension Expense/(Income)	\$	111,479

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

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ (629,401)
2. Assumption Changes (gains) or losses	\$ (565,439)
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	4.3995
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	\$ (143,062)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$ (128,523)
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	<u>\$ (271,585)</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	\$ (486,339)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$ (436,916)
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	<u>\$ (923,255)</u>

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (1,714,057)
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	\$ (342,811)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (1,371,246)

* Please note that employer contributions made after the measurement date have not been reported as deferred outflows of resources. These employer contributions must be separately accounted for by the employer.

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

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	\$ 73,135	\$ 541,415	\$ (468,280)
2. Due to Assets	240,650	342,811	(102,161)
3. Total	\$ 313,785	\$ 884,226	\$ (570,441)

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	\$ 68,279	\$ 402,917	\$ (334,638)
2. Assumption changes	4,856	138,498	\$ (133,642)
3. Net difference between projected and actual earnings on pension plan investments	240,650	342,811	(102,161)
4. Total	\$ 313,785	\$ 884,226	\$ (570,441)

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	\$ 168,163	\$ 848,757	\$ (680,594)
2. Assumption changes	6,774	461,483	\$ (454,709)
3. Net difference between projected and actual earnings on pension plan investments	502,450	1,371,246	(868,796)
4. Total	\$ 677,387	\$ 2,681,486	\$ (2,004,099)

D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending December 31	Net Deferred Outflows of Resources
2018	\$ (570,441)
2019	(416,085)
2020	(566,260)
2021	(451,313)
2022	0
Thereafter	0
Total	\$ (2,004,099)

Schedule of Changes in Net Pension Liability and Related Ratios

Current Period

Calendar Year Ended December 31, 2017

A. Total pension liability	
1. Service Cost	\$ 348,838
2. Interest on the Total Pension Liability	1,382,356
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	(629,401)
5. Changes of assumptions	(565,439)
6. Benefit payments, including refunds of employee contributions	(900,714)
7. Net change in total pension liability	\$ (364,360)
8. Total pension liability – beginning	18,707,357
9. Total pension liability – ending	<u><u>\$ 18,342,997</u></u>
B. Plan fiduciary net position	
1. Contributions – employer	\$ 340,719
2. Contributions – employee	147,870
3. Net investment income	2,911,791
4. Benefit payments, including refunds of employee contributions	(900,714)
5. Other (Net Transfer)	(296,330)
6. Net change in plan fiduciary net position	\$ 2,203,336
7. Plan fiduciary net position – beginning	16,324,018
8. Plan fiduciary net position – ending	<u><u>\$ 18,527,354</u></u>
C. Net pension liability/(asset)	<u><u>\$ (184,357)</u></u>
D. Plan fiduciary net position as a percentage of the total pension liability	101.01%
E. Covered Valuation payroll	\$ 3,164,658
F. Net pension liability as a percentage of covered valuation payroll	(5.83)%

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

	1% Decrease 6.50%	Current Single Discount Rate Assumption 7.50%	1% Increase 8.50%
Total Pension Liability	\$ 20,605,571	\$ 18,342,997	\$ 16,485,956
Plan Fiduciary Net Position	18,527,354	18,527,354	18,527,354
Net Pension Liability/(Asset)	\$ 2,078,217	\$ (184,357)	\$ (2,041,398)

Schedules of Required Supplementary Information

Multiyear Schedule of Changes in Net Pension Liability and Related Ratios

Last 10 Calendar Years

(schedule to be built prospectively from 2014)

Calendar year ending December 31,	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Pension Liability										
Service Cost	\$ 348,838	\$ 350,949	\$ 338,319							
Interest on the Total Pension Liability	1,382,356	1,310,052	1,342,439							
Benefit Changes	0	0	0							
Difference between Expected and Actual Experience	(629,401)	304,721	(1,141,983)							
Assumption Changes	(565,439)	(44,517)	21,342							
Benefit Payments and Refunds	(900,714)	(1,104,864)	(846,048)							
Net Change in Total Pension Liability	(364,360)	816,341	(285,931)							
Total Pension Liability - Beginning	18,707,357	17,891,016	18,176,947							
Total Pension Liability - Ending (a)	\$ 18,342,997	\$ 18,707,357	\$ 17,891,016							
Plan Fiduciary Net Position										
Employer Contributions	\$ 340,719	\$ 589,469	\$ 628,890							
Employee Contributions	147,870	153,572	146,561							
Pension Plan Net Investment Income	2,911,791	1,046,264	80,013							
Benefit Payments and Refunds	(900,714)	(1,104,864)	(846,048)							
Other	(296,330)	197,015	(604,709)							
Net Change in Plan Fiduciary Net Position	2,203,336	881,456	(595,293)							
Plan Fiduciary Net Position - Beginning	16,324,018	15,442,562	16,037,855							
Plan Fiduciary Net Position - Ending (b)	\$ 18,527,354	\$ 16,324,018	\$ 15,442,562							
Net Pension Liability/(Asset) - Ending (a) - (b)	(184,357)	2,383,339	2,448,454							
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	101.01%	87.26%	86.31%							
Covered Valuation Payroll	\$ 3,164,658	\$ 3,409,309	\$ 3,256,920							
Net Pension Liability as a Percentage of Covered Valuation Payroll	(5.83)%	69.91%	75.18%							

Multiyear Schedule of Contributions

Last 10 Calendar Years

<u>Calendar Year Ending December 31,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Valuation Payroll</u>	<u>Actual Contribution as a % of Covered Valuation Payroll</u>
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%

* Estimated based on contribution rate of 10.79% and covered valuation payroll of \$3,164,658.

Notes to Schedule of Contributions

Summary of Actuarial Methods and Assumptions Used in the Calculation of the 2017 Contribution Rate*

Valuation Date:

Notes Actuarially determined contribution rates are calculated as of December 31 each year, which is 12 months prior to the beginning of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine 2017 Contribution Rates:

Actuarial Cost Method	Aggregate Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	Non-Taxing bodies: 10-year rolling period. Taxing bodies (Regular, SLEP and ECO groups): 26-year closed period Early Retirement Incentive Plan liabilities: a period up to 10 years selected by the Employer upon adoption of ERI. SLEP supplemental liabilities attributable to Public Act 94-712 were financed over 21 years for most employers (two employers were financed over 30 years).
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage growth	3.50%
Price Inflation	2.75% -- approximate; No explicit price inflation assumption is used in this valuation.
Salary Increases	3.75% to 14.50% including inflation
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2014 valuation pursuant to an experience study of the period 2011-2013.
Mortality	For non-disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2012). The IMRF specific rates were developed from the RP-2014 Blue Collar Health Annuitant Mortality Table with adjustments to match current IMRF experience. For disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2012). The IMRF specific rates were developed from the RP-2014 Disabled Retirees Mortality Table applying the same adjustment that were applied for non-disabled lives. For active members, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2012). The IMRF specific rates were developed from the RP-2014 Employee Mortality Table with adjustments to match current IMRF experience.

Other Information:

Notes There were no benefit changes during the year.

* Based on Valuation Assumptions used in the December 31, 2015 actuarial valuation

Development of Market Value of Assets

Market Value of Assets as of December 31, 2017

1. Employee Contribution Reserve (MDF Assets from IMRF)	\$	2,973,363
2. Employer Contribution Reserve (EAF assets from IMRF)	\$	5,920,709
3. Annuitant Reserve	\$	9,634,803
4. Miscellaneous Adjustment*	\$	(1,521)
5. Net Market Value	\$	18,527,354

* Includes an adjustment factor of (0.0000820765) on Items 1 through 3 to ensure that Market Value of Assets for all employers balances to the total Market Value of IMRF. Miscellaneous adjustments are due to various items such as suspended annuity reserve, disability benefit reserve, death benefit reserve, supplemental benefit reserve, employers with no assets, etc.

Schedule of Contributions

Total Contributions

1. Employer

a.) Wage Reporting	\$	340,719
b.) Accelerated payments and Reserve Payments		-
	\$	340,719

2. Member

a.) Wage Reporting	\$	142,215
b.) Member Payments (i.e. ERI, Pension Payments)		5,655
Sub-total (Amount used for valuation on Schedule of Changes Page 10)	\$	147,870

c.) Voluntary Additional Plan	\$	20,036
Total Member Contributions (a+b+c)	\$	167,906

Total Employer and Member Contributions (1+2)	\$	508,625
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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 (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.50%; the municipal bond rate is 3.31%; and the resulting single discount rate is 7.50%.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

Expected Contributions are developed based on the following:

- Member Contributions for current members
- Normal Cost contributions for current members
- Unfunded Liability contributions for current and future members.

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Single Discount Rate Development Projection of Contributions

Year	Payroll for Current Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
2017	\$ 3,164,658				
2018	2,965,467	\$ 133,446	\$ 195,888	\$ 48,339	\$ 377,672
2019	2,820,611	126,928	161,773	30,662	319,362
2020	2,705,281	121,738	154,355	9,200	285,293
2021	2,611,361	117,511	149,255	(13,466)	253,300
2022	2,521,914	113,486	144,142	(39,081)	218,548
2023	2,423,067	109,038	138,493	(40,058)	207,473
2024	2,333,497	105,007	133,142	(41,060)	197,090
2025	2,265,004	101,925	128,786	(42,086)	188,626
2026	2,201,870	99,084	124,979	(43,138)	180,925
2027	2,141,747	96,379	121,143	(44,217)	173,304
2028	2,062,548	92,815	116,459	(45,322)	163,952
2029	1,974,636	88,859	111,300	(46,455)	153,704
2030	1,906,386	85,787	106,887	(47,617)	145,058
2031	1,845,691	83,056	103,119	(48,807)	137,368
2032	1,783,205	80,244	99,452	(50,027)	129,669
2033	1,718,886	77,350	95,525	(51,278)	121,597
2034	1,657,210	74,574	91,933	(52,560)	113,948
2035	1,597,250	71,876	88,133	(53,874)	106,135
2036	1,536,225	69,130	84,462	(55,221)	98,371
2037	1,467,750	66,049	80,407	(56,601)	89,855
2038	1,388,488	62,482	75,516	(58,016)	79,982
2039	1,301,734	58,578	70,282	(59,466)	69,394
2040	1,214,608	54,657	64,978	(60,953)	58,682
2041	1,114,223	50,140	59,167	(59,167)	50,140
2042	1,004,086	45,184	52,723	(52,723)	45,183
2043	899,312	40,469	46,510	0	86,979
2044	796,302	35,834	40,552	0	76,386
2045	699,845	31,493	35,156	0	66,649
2046	612,253	27,551	30,332	0	57,883
2047	541,398	24,363	26,393	0	50,756
2048	466,812	21,007	22,342	0	43,348
2049	380,501	17,123	17,985	0	35,108
2050	317,946	14,308	14,902	0	29,210
2051	255,443	11,495	11,821	0	23,316
2052	167,983	7,559	7,741	0	15,300
2053	106,702	4,802	5,086	0	9,887
2054	83,746	3,769	4,182	0	7,951
2055	72,517	3,263	3,614	0	6,877
2056	56,410	2,538	2,750	0	5,288
2057	38,837	1,748	1,897	0	3,645
2058	27,289	1,228	1,365	0	2,593
2059	16,461	741	840	0	1,581
2060	10,182	458	558	0	1,016
2061	6,702	302	398	0	699
2062	4,575	206	280	0	485
2063	3,110	140	190	0	330
2064	1,630	73	100	0	173
2065	948	43	58	0	101
2066	431	19	27	0	46
2067	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
2068	\$ 0	\$ 0	\$ 0	\$ 0	0
2069	0	0	0	0	0
2070	0	0	0	0	0
2071	0	0	0	0	0
2072	0	0	0	0	0
2073	0	0	0	0	0
2074	0	0	0	0	0
2075	0	0	0	0	0
2076	0	0	0	0	0
2077	0	0	0	0	0
2078	0	0	0	0	0
2079	0	0	0	0	0
2080	0	0	0	0	0
2081	0	0	0	0	0
2082	0	0	0	0	0
2083	0	0	0	0	0
2084	0	0	0	0	0
2085	0	0	0	0	0
2086	0	0	0	0	0
2087	0	0	0	0	0
2088	0	0	0	0	0
2089	0	0	0	0	0
2090	0	0	0	0	0
2091	0	0	0	0	0
2092	0	0	0	0	0
2093	0	0	0	0	0
2094	0	0	0	0	0
2095	0	0	0	0	0
2096	0	0	0	0	0
2097	0	0	0	0	0
2098	0	0	0	0	0
2099	0	0	0	0	0
2100	0	0	0	0	0
2101	0	0	0	0	0
2102	0	0	0	0	0
2103	0	0	0	0	0
2104	0	0	0	0	0
2105	0	0	0	0	0
2106	0	0	0	0	0
2107	0	0	0	0	0
2108	0	0	0	0	0
2109	0	0	0	0	0
2110	0	0	0	0	0
2111	0	0	0	0	0
2112	0	0	0	0	0
2113	0	0	0	0	0
2114	0	0	0	0	0
2115	0	0	0	0	0
2116	0	0	0	0	0
2117	0	0	0	0	0

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		Projected Total		Projected Benefit		Projected		Projected Ending Plan	
	Plan	Net Position	Contributions	Payments	Investment	Earnings at 7.50%	Net Position			
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)					
2018	\$	18,527,354	\$	377,672	\$	940,400	\$	1,368,831	\$	19,333,457
2019		19,333,457		319,362		983,464		1,425,556		20,094,911
2020		20,094,911		285,293		1,021,596		1,480,006		20,838,614
2021		20,838,614		253,300		1,060,824		1,533,161		21,564,252
2022		21,564,252		218,547		1,108,793		1,584,538		22,258,545
2023		22,258,545		207,473		1,166,178		1,634,089		22,933,928
2024		22,933,928		197,090		1,226,336		1,682,146		23,586,828
2025		23,586,828		188,626		1,268,915		1,729,234		24,235,772
2026		24,235,772		180,925		1,352,700		1,774,536		24,838,532
2027		24,838,532		173,305		1,437,048		1,816,356		25,391,145
2028		25,391,145		163,952		1,515,599		1,854,565		25,894,063
2029		25,894,063		153,703		1,571,878		1,889,835		26,365,723
2030		26,365,723		145,058		1,609,720		1,923,497		26,824,559
2031		26,824,559		137,368		1,647,328		1,956,242		27,270,842
2032		27,270,842		129,669		1,693,311		1,987,737		27,694,936
2033		27,694,936		121,597		1,734,019		2,017,748		28,100,262
2034		28,100,262		113,948		1,773,586		2,046,408		28,487,032
2035		28,487,032		106,136		1,812,965		2,073,678		28,853,882
2036		28,853,882		98,372		1,862,203		2,099,093		29,189,144
2037		29,189,144		89,855		1,909,987		2,122,165		29,491,176
2038		29,491,176		79,981		1,962,914		2,142,505		29,750,748
2039		29,750,748		69,394		2,042,477		2,158,653		29,936,318
2040		29,936,318		58,682		2,106,196		2,169,830		30,058,635
2041		30,058,635		50,140		2,194,310		2,175,445		30,089,910
2042		30,089,910		45,184		2,277,261		2,174,554		30,032,386
2043		30,032,386		86,979		2,335,049		2,169,650		29,953,966
2044		29,953,966		76,386		2,406,253		2,160,757		29,784,855
2045		29,784,855		66,649		2,450,403		2,146,089		29,547,191
2046		29,547,191		57,883		2,490,792		2,126,455		29,240,736
2047		29,240,736		50,756		2,516,468		2,102,263		28,877,287
2048		28,877,287		43,348		2,551,315		2,073,448		28,442,768
2049		28,442,768		35,108		2,582,385		2,039,412		27,934,902
2050		27,934,902		29,210		2,582,613		2,001,096		27,382,595
2051		27,382,595		23,316		2,613,114		1,958,333		26,751,130
2052		26,751,130		15,300		2,659,695		1,908,963		26,015,698
2053		26,015,698		9,887		2,658,818		1,853,638		25,220,405
2054		25,220,405		7,951		2,623,228		1,795,230		24,400,358
2055		24,400,358		6,877		2,577,677		1,735,365		23,564,923
2056		23,564,923		5,288		2,540,990		1,673,999		22,703,221
2057		22,703,221		3,645		2,499,166		1,610,851		21,818,552
2058		21,818,552		2,593		2,451,156		1,546,230		20,916,219
2059		20,916,219		1,581		2,400,890		1,480,369		19,997,279
2060		19,997,279		1,016		2,342,647		1,413,572		19,069,220
2061		19,069,220		699		2,279,487		1,346,282		18,136,714
2062		18,136,714		485		2,212,719		1,278,795		17,203,275
2063		17,203,275		330		2,144,252		1,211,302		16,270,656
2064		16,270,656		173		2,073,714		1,143,947		15,341,062
2065		15,341,062		101		2,000,170		1,076,933		14,417,925
2066		14,417,925		46		1,925,122		1,010,459		13,503,308
2067		13,503,308		0		1,847,424		944,722		12,600,607

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 7.50%		Projected Ending Plan Net Position	
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)					
2068	\$ 12,600,607	\$ 0	\$ 1,767,526	\$ 879,962	\$ 11,713,042					
2069	11,713,042	0	1,685,888	816,400	10,843,554					
2070	10,843,554	0	1,602,567	754,257	9,995,244					
2071	9,995,244	0	1,517,714	693,758	9,171,288					
2072	9,171,288	0	1,431,555	635,134	8,374,867					
2073	8,374,867	0	1,344,287	578,616	7,609,196					
2074	7,609,196	0	1,256,171	524,435	6,877,459					
2075	6,877,459	0	1,167,607	472,816	6,182,668					
2076	6,182,668	0	1,079,074	423,966	5,527,560					
2077	5,527,560	0	991,073	378,074	4,914,561					
2078	4,914,561	0	904,165	335,299	4,345,694					
2079	4,345,694	0	819,019	295,769	3,822,445					
2080	3,822,445	0	736,303	259,571	3,345,713					
2081	3,345,713	0	656,700	226,747	2,915,760					
2082	2,915,760	0	580,799	197,296	2,532,257					
2083	2,532,257	0	509,074	171,174	2,194,356					
2084	2,194,356	0	442,055	148,299	1,900,601					
2085	1,900,601	0	380,173	128,546	1,648,974					
2086	1,648,974	0	323,694	111,754	1,437,034					
2087	1,437,034	0	272,764	97,734	1,262,005					
2088	1,262,005	0	227,420	86,276	1,120,860					
2089	1,120,860	0	187,585	77,157	1,010,433					
2090	1,010,433	0	153,070	70,146	927,510					
2091	927,510	0	123,562	65,013	868,961					
2092	868,961	0	98,662	61,539	831,838					
2093	831,838	0	77,934	59,518	813,422					
2094	813,422	0	60,915	58,764	811,271					
2095	811,271	0	47,114	59,110	823,268					
2096	823,268	0	36,044	60,418	847,641					
2097	847,641	0	27,272	62,569	882,938					
2098	882,938	0	20,407	65,469	928,000					
2099	928,000	0	15,093	69,044	981,951					
2100	981,951	0	11,019	73,241	1,044,173					
2101	1,044,173	0	7,934	78,021	1,114,259					
2102	1,114,259	0	5,630	83,362	1,191,992					
2103	1,191,992	0	3,929	89,255	1,277,317					
2104	1,277,317	0	2,690	95,700	1,370,327					
2105	1,370,327	0	1,805	102,708	1,471,231					
2106	1,471,231	0	1,183	110,299	1,580,346					
2107	1,580,346	0	756	118,498	1,698,089					
2108	1,698,089	0	471	127,339	1,824,957					
2109	1,824,957	0	284	136,861	1,961,535					
2110	1,961,535	0	165	147,109	2,108,479					
2111	2,108,479	0	93	158,133	2,266,519					
2112	2,266,519	0	50	169,987	2,436,456					
2113	2,436,456	0	26	182,733	2,619,163					
2114	2,619,163	0	13	196,437	2,815,587					
2115	2,815,587	0	6	211,169	3,026,750					
2116	3,026,750	0	3	227,006	3,253,753					
2117	3,253,753	0	1	244,031	3,497,783					

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}
2018	\$ 18,527,354	\$ 940,400	\$ 940,400	\$ 0	\$ 907,002	\$ 0	\$ 907,002
2019	19,333,457	983,464	983,464	0	882,360	0	882,360
2020	20,094,911	1,021,596	1,021,596	0	852,625	0	852,625
2021	20,838,614	1,060,824	1,060,824	0	823,595	0	823,595
2022	21,564,252	1,108,793	1,108,793	0	800,779	0	800,779
2023	22,258,545	1,166,178	1,166,178	0	783,463	0	783,463
2024	22,933,928	1,226,336	1,226,336	0	766,398	0	766,398
2025	23,586,828	1,268,915	1,268,915	0	737,682	0	737,682
2026	24,235,772	1,352,700	1,352,700	0	731,526	0	731,526
2027	24,838,532	1,437,048	1,437,048	0	722,921	0	722,921
2028	25,391,145	1,515,599	1,515,599	0	709,244	0	709,244
2029	25,894,063	1,571,878	1,571,878	0	684,260	0	684,260
2030	26,365,723	1,609,720	1,609,720	0	651,845	0	651,845
2031	26,824,559	1,647,328	1,647,328	0	620,534	0	620,534
2032	27,270,842	1,693,311	1,693,311	0	593,354	0	593,354
2033	27,694,936	1,734,019	1,734,019	0	565,227	0	565,227
2034	28,100,262	1,773,586	1,773,586	0	537,790	0	537,790
2035	28,487,032	1,812,965	1,812,965	0	511,377	0	511,377
2036	28,853,882	1,862,203	1,862,203	0	488,619	0	488,619
2037	29,189,144	1,909,987	1,909,987	0	466,193	0	466,193
2038	29,491,176	1,962,914	1,962,914	0	445,685	0	445,685
2039	29,750,748	2,042,477	2,042,477	0	431,395	0	431,395
2040	29,936,318	2,106,196	2,106,196	0	413,817	0	413,817
2041	30,058,635	2,194,310	2,194,310	0	401,051	0	401,051
2042	30,089,910	2,277,261	2,277,261	0	387,173	0	387,173
2043	30,032,386	2,335,049	2,335,049	0	369,301	0	369,301
2044	29,953,966	2,406,253	2,406,253	0	354,011	0	354,011
2045	29,784,855	2,450,403	2,450,403	0	335,355	0	335,355
2046	29,547,191	2,490,792	2,490,792	0	317,100	0	317,100
2047	29,240,736	2,516,468	2,516,468	0	298,017	0	298,017
2048	28,877,287	2,551,315	2,551,315	0	281,064	0	281,064
2049	28,442,768	2,582,385	2,582,385	0	264,639	0	264,639
2050	27,934,902	2,582,613	2,582,613	0	246,198	0	246,198
2051	27,382,595	2,613,114	2,613,114	0	231,726	0	231,726
2052	26,751,130	2,659,695	2,659,695	0	219,402	0	219,402
2053	26,015,698	2,658,818	2,658,818	0	204,027	0	204,027
2054	25,220,405	2,623,228	2,623,228	0	187,252	0	187,252
2055	24,400,358	2,577,677	2,577,677	0	171,163	0	171,163
2056	23,564,923	2,540,990	2,540,990	0	156,956	0	156,956
2057	22,703,221	2,499,166	2,499,166	0	143,602	0	143,602
2058	21,818,552	2,451,156	2,451,156	0	131,017	0	131,017
2059	20,916,219	2,400,890	2,400,890	0	119,377	0	119,377
2060	19,997,279	2,342,647	2,342,647	0	108,355	0	108,355
2061	19,069,220	2,279,487	2,279,487	0	98,077	0	98,077
2062	18,136,714	2,212,719	2,212,719	0	88,562	0	88,562
2063	17,203,275	2,144,252	2,144,252	0	79,835	0	79,835
2064	16,270,656	2,073,714	2,073,714	0	71,822	0	71,822
2065	15,341,062	2,000,170	2,000,170	0	64,441	0	64,441
2066	14,417,925	1,925,122	1,925,122	0	57,696	0	57,696
2067	13,503,308	1,847,424	1,847,424	0	51,505	0	51,505

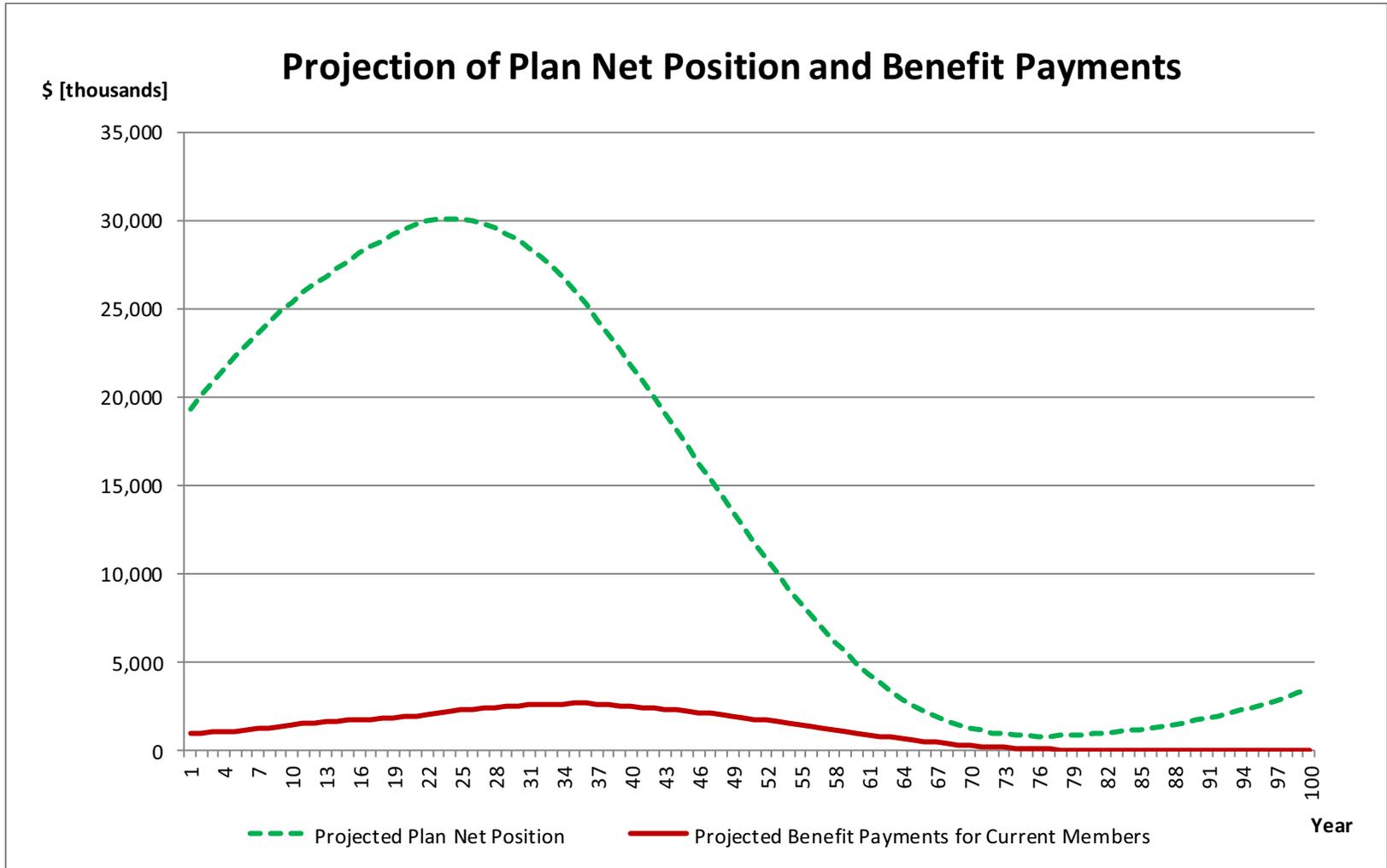
The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

Single Discount Rate Development

Present Values of Projected Benefits (Concluded)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{((a)-.5)}	(g)=(e)*vf ^{((a)-.5)}	(h)=(c)/(1+sdr) ^{((a)-.5)}
2068	\$ 12,600,607	\$ 1,767,526	\$ 1,767,526	\$ 0	\$ 45,839	\$ 0	\$ 45,839
2069	11,713,042	1,685,888	1,685,888	0	40,672	0	40,672
2070	10,843,554	1,602,567	1,602,567	0	35,964	0	35,964
2071	9,995,244	1,517,714	1,517,714	0	31,684	0	31,684
2072	9,171,288	1,431,555	1,431,555	0	27,800	0	27,800
2073	8,374,867	1,344,287	1,344,287	0	24,284	0	24,284
2074	7,609,196	1,256,171	1,256,171	0	21,109	0	21,109
2075	6,877,459	1,167,607	1,167,607	0	18,252	0	18,252
2076	6,182,668	1,079,074	1,079,074	0	15,691	0	15,691
2077	5,527,560	991,073	991,073	0	13,406	0	13,406
2078	4,914,561	904,165	904,165	0	11,377	0	11,377
2079	4,345,694	819,019	819,019	0	9,587	0	9,587
2080	3,822,445	736,303	736,303	0	8,017	0	8,017
2081	3,345,713	656,700	656,700	0	6,652	0	6,652
2082	2,915,760	580,799	580,799	0	5,472	0	5,472
2083	2,532,257	509,074	509,074	0	4,462	0	4,462
2084	2,194,356	442,055	442,055	0	3,604	0	3,604
2085	1,900,601	380,173	380,173	0	2,883	0	2,883
2086	1,648,974	323,694	323,694	0	2,284	0	2,284
2087	1,437,034	272,764	272,764	0	1,790	0	1,790
2088	1,262,005	227,420	227,420	0	1,388	0	1,388
2089	1,120,860	187,585	187,585	0	1,065	0	1,065
2090	1,010,433	153,070	153,070	0	809	0	809
2091	927,510	123,562	123,562	0	607	0	607
2092	868,961	98,662	98,662	0	451	0	451
2093	831,838	77,934	77,934	0	331	0	331
2094	813,422	60,915	60,915	0	241	0	241
2095	811,271	47,114	47,114	0	173	0	173
2096	823,268	36,044	36,044	0	123	0	123
2097	847,641	27,272	27,272	0	87	0	87
2098	882,938	20,407	20,407	0	60	0	60
2099	928,000	15,093	15,093	0	42	0	42
2100	981,951	11,019	11,019	0	28	0	28
2101	1,044,173	7,934	7,934	0	19	0	19
2102	1,114,259	5,630	5,630	0	12	0	12
2103	1,191,992	3,929	3,929	0	8	0	8
2104	1,277,317	2,690	2,690	0	5	0	5
2105	1,370,327	1,805	1,805	0	3	0	3
2106	1,471,231	1,183	1,183	0	2	0	2
2107	1,580,346	756	756	0	1	0	1
2108	1,698,089	471	471	0	1	0	1
2109	1,824,957	284	284	0	0	0	0
2110	1,961,535	165	165	0	0	0	0
2111	2,108,479	93	93	0	0	0	0
2112	2,266,519	50	50	0	0	0	0
2113	2,436,456	26	26	0	0	0	0
2114	2,619,163	13	13	0	0	0	0
2115	2,815,587	6	6	0	0	0	0
2116	3,026,750	3	3	0	0	0	0
2117	3,253,753	1	1	0	0	0	0
Totals					\$ 20,902,705	\$ -	\$ 20,902,705

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>	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: <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.