Jonesboro Volunteer Fire 1050235

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

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April 30, 2020

Jonesboro Volunteer Fire
Arkansas Local Police and Fire Retirement System

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

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 this accounting standard.

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 Jonesboro Volunteer Fire plan's liability for purposes other than satisfying the requirements of GASB Statement No. 68 may produce significantly different results. This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board (including employers participating in LOPFI). This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by LOPFI, 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 LOPFI and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 2019 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

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To the best of our knowledge, the information contained in this report is accurate, and fairly represents the actuarial position of Jonesboro Volunteer Fire. 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. Heidi G. Barry is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing individuals are independent of the plan sponsor.

Respectfully submitted,

David L. Hoffman

Heidi G. Barry, ASA, FCA, MAAA

DLH/HGB:ah

SECTION A

EXECUTIVE SUMMARY

Executive Summary
as of December 31, 2019

	2019
Actuarial Valuation Date	December 31, 2019
Measurement Date of the Net Pension Liability	December 31, 2019
Membership	
Number of Local Plan	
- Retirees and Beneficiaries	-
- DROP Members	N/A
- Active Members	-
- Total	-
Covered Payroll	N/A
Net Pension Liability	
Total Pension Liability	$ 0
Plan Fiduciary Net Position	(70,100)
Net Pension Liability	$ 70,100
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	0.00%
Net Pension Liability as a Percentage of Covered Valuation Payroll	N/A
Development of the Single Discount Rate	
Long-Term Expected Rate of Investment Return	7.00%
Long-Term Municipal Bond Rate*	2.75%
Last year ending December 31 in the 2020 to 2119 projection period for which projected benefit payments are fully funded	2019
Single Discount Rate End of Year	7.00%
Single Discount Rate Beginning of Year	3.71%
Total Pension Expense/(Income)	$ (4,347)

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	$ -	$ -
Changes in assumptions	-	-
Net difference between projected and actual earnings on pension plan investments	-	-
Total	$ -	$ -

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

Discussion

Accounting Standard

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

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information is not included in this report if it is not actuarial in nature, such as the notes to the financial statements regarding accounting policies and investments. As a result, the retirement system 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).

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 the Jonesboro Volunteer Fire December 31, 2019 Annual Actuarial Valuation report);
- the number and classes of employees covered by the benefit terms;
- for the current year, sources of changes in the net pension liability;

- significant assumptions and methods used to calculate the total pension liability (please see the December 31, 2019 Annual Actuarial Valuation reports for the Jonesboro Volunteer Fire Plan and the Arkansas Local Police and Fire Retirement System);
- inputs to the single discount rate;
- certain information about mortality assumptions and the dates of experience studies;
- the date of the valuation used to determine the total pension liability;
- information about changes of assumptions or other inputs and benefit terms;
- 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 the December 31, 2019 Annual Actuarial Valuation reports for the Jonesboro Volunteer Fire Plan and the Arkansas Local Police and Fire Retirement System);
- 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; and
- 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.

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;
- 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; and
- comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding.

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

Timing of the Valuation

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

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2019 and a measurement date of December 31, 2019.

Single Discount Rate

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

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.00%, the municipal bond rate is 2.75% (based on the weekly rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"), and the resulting Single Discount Rate is 7.00%.

Summary of Benefits

This report complements the actuarial valuation report prepared as of December 31, 2019, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to benefit provisions.

Actuarial Cost Methods and Actuarial Assumptions

This report complements the actuarial valuation report prepared as of December 31, 2019, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to actuarial cost methods and actuarial assumptions.

The value of assets used for GASB Statement No. 68 reporting purposes was the market value of assets.

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 7.00% on the actuarial value of assets), it is expected that:

(1) The unfunded liability will be paid off in approximately 18 years beginning January 1, 2020, which is the number of years remaining in the closed amortization schedule of the unfunded liability.
(2) The funded status of the plan will increase gradually towards a 100% funded ratio.

This funding policy results in the projected plan fiduciary net position being sufficient to pay benefits for all future years and a GASB single discount rate of 7.00%. 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.

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.

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

Statement of Pension Expense/(Income)
Under GASB Statement No. 68
Calendar Year Ended December 31, 2019

A. Expense/(Income)		
1. Service Cost	$	-
2. Interest on the Total Pension Liability		165
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. Recognition of Outflow (Inflow) of Resources Due to Liabilities		(4,512)
8. Recognition of Outflow (Inflow) of Resources Due to Assets		-
9. Total Pension Expense/(Income)	**$**	**(4,347)**

Statement of Outflows and Inflows Arising from Current Reporting Period
Calendar Year Ended December 31, 2019

A. Outflows (Inflows) of Resources Due to Liabilities		
1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	$	(4,512)
2. Assumption changes (gains) or losses		-
3. Recognition period for liabilities: average of the expected remaining service lives of all employees {in years}		1.0000
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	$	(4,512)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes		-
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to liabilities	$	(4,512)
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		-
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes		-
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to liabilities		-
B. Outflows (Inflows) of Resources Due to Assets		
1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	$	-
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	$	-
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to assets	$	-

Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods
Calendar Year Ended December 31, 2019

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to liabilities	$ -	$ 4,512	$ (4,512)
2. Due to assets	-	-	-
3. Total	$ -	$ 4,512	$ (4,512)

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	$ -	$ 4,512	$ (4,512)
2. Assumption changes	-	-	-
3. Net difference between projected and actual earnings on pension plan investments	-	-	-
4. Total	$ -	$ 4,512	$ (4,512)

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. Assumption changes	-	-	-
3. Net difference between projected and actual earnings on pension plan investments	-	-	-
4. Total	$ -	$ -	$ -

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

Year Ending December 31	Net Deferred Outflows of Resources
2020	$ -
2021	-
2022	-
2023	-
2024	-
Thereafter	-
Total	$ -

Statement of Outflows and Inflows Arising from the Current and Prior Reporting Periods
Calendar Year Ended December 31, 2019

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) Due to Differences Between Expected and Actual Experience on Liabilities					
2019	$ (4,512)	1.0000	$ (4,512)	$ -	0.0000
Total			**$ (4,512)**	**$ -**	
Deferred Outflow (Inflow) Due to Assumption Changes					
2019	$ -	1.0000	$ -	$ -	0.0000
Total			**$ -**	**$ -**	
Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments					
2015	$ -	5.0000	$ -	$ -	0.0000
2016	-	5.0000	-	-	1.0000
2017	-	5.0000	-	-	2.0000
2018	-	5.0000	-	-	3.0000
2019	-	5.0000	-	-	4.0000
Total			**$ -**	**$ -**	

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

A. Total Pension Liability		
1. Service Cost	$	-
2. Interest on the Total Pension Liability		165
3. Changes of benefit terms		-
4. Difference between expected and actual experience of the Total Pension Liability		(4,512)
5. Changes of assumptions		-
6. Benefit payments, including refunds of employee contributions		(200)
7. Other		-
8. Net change in Total Pension Liability	$	(4,547)
9. Total Pension Liability – Beginning		4,547
10. Total Pension Liability – Ending	**$**	**-**
B. Plan Fiduciary Net Position		
1. Contributions – Employer*	$	7,882
2. Contributions – Employee		-
3. Local plan administrative mergers		-
4. Net investment income		-
5. Benefit payments, including refunds of employee contributions		(200)
6. Pension Plan Administrative Expense		-
7. Net change in Plan Fiduciary Net Position	$	7,682
8. Plan Fiduciary Net Position – Beginning		(77,782)
9. Plan Fiduciary Net Position – Ending	**$**	**(70,100)**
C. Net Pension Liability	**$**	**70,100**
D. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		**0.00%**
E. Covered Payroll		**N/A**
F. Net Pension Liability as a Percentage of Covered Payroll		**N/A**

* *Includes assets reported as Premium Tax money.*

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

	1% Decrease 6.00%	Current Single Discount Rate Assumption 7.00%	1% Increase 8.00%
Total Pension Liability	$ -	$ -	$ -
Plan Fiduciary Net Position	(70,100)	(70,100)	(70,100)
Net Pension Liability/(Asset)	$ 70,100	$ 70,100	$ 70,100

Schedules of Required Supplementary Information
Schedule of Changes in Net Pension Liability and Related Ratios
Multiyear

Ultimately 10 Fiscal Years Will Be Displayed

Fiscal year ending December 31,	2019	2018	2017	2016	2015	2014
Total Pension Liability						
Service Cost	$ -	$ -	$ -	$ -	$ -	$ -
Interest on the Total Pension Liability	165	139	208	211	624	1,193
Benefit Changes	-	-	-	-	-	-
Difference between Expected and Actual Experience	(4,512)	1,002	695	928	(9,592)	2,351
Assumption Changes	-	(54)	(724)	(53)	(3)	3,108
Benefit Payments	(200)	(1,459)	(1,508)	(1,524)	(3,740)	(4,341)
Net Change in Total Pension Liability	(4,547)	(372)	(1,329)	(438)	(12,711)	2,311
Total Pension Liability - Beginning	4,547	4,919	6,248	6,686	19,397	17,086
Total Pension Liability - Ending (a)	$ -	$ 4,547	$ 4,919	$ 6,248	$ 6,686	$ 19,397
Plan Fiduciary Net Position						
Employer Contributions*	$ 7,882	$ 9,282	$ 9,815	$ 8,879	$ 9,621	$ 8,919
Employee Contributions	-	-	-	-	-	-
Local Plan Administrative Mergers	-	-	-	-	-	-
Pension Plan Net Investment Income	-	-	-	-	-	-
Benefit Payments	(200)	(1,459)	(1,508)	(1,524)	(3,740)	(4,341)
Pension Plan Administrative Expenses	-	-	-	(617)	(450)	-
Net Change in Plan Fiduciary Net Position	7,682	7,823	8,307	6,738	5,431	4,578
Plan Fiduciary Net Position - Beginning	(77,782)	(85,605)	(93,912)	(100,650)	(106,081)	(110,659)
Plan Fiduciary Net Position - Ending (b)	$ (70,100)	$ (77,782)	$ (85,605)	$ (93,912)	$ (100,650)	$ (106,081)
Net Pension Liability - Ending (a) - (b)	70,100	82,329	90,524	100,160	107,336	125,478
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Covered Payroll^	N/A	N/A	N/A	N/A	N/A	N/A
Net Pension Liability as a Percentage of Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A

* *Includes assets reported as Premium Tax money.*

^ *Beginning in 2016, Covered Payroll is the amount for which contributions were based. Prior to 2016, Covered Payroll was based on active valuation payroll.*

Schedule of the Net Pension Liability Multiyear

Ultimately 10 Fiscal Years Will Be Displayed

FY Ending December 31,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll^	Net Pension Liability as a % of Covered Payroll
2014	$ 19,397	$ (106,081)	$ 125,478	0.00%	N/A	N/A
2015	6,686	(100,650)	107,336	0.00%	N/A	N/A
2016	6,248	(93,912)	100,160	0.00%	N/A	N/A
2017	4,919	(85,605)	90,524	0.00%	N/A	N/A
2018	4,547	(77,782)	82,329	0.00%	N/A	N/A
2019	-	(70,100)	70,100	0.00%	N/A	N/A

^ Beginning in 2016, Covered Payroll is the amount for which contributions were based. Prior to 2016, Covered Payroll was based on active valuation payroll.

Schedule of Contributions Multiyear

Ultimately 10 Fiscal Years Will Be Displayed

FY Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	$ 8,919	$ 8,919	$ -	N/A	N/A
2015	9,621	9,621	-	N/A	N/A
2016	8,779	8,779	-	N/A	N/A
2017	10,265	10,265	-	N/A	N/A
2018	9,732	9,732	-	N/A	N/A
2019	8,328	8,328	-	N/A	N/A

Notes to Schedule of Contributions

Valuation Date:	December 31, 2017
Notes	Actuarially determined contribution rates are calculated as of December 31st of 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 Contribution Rates for Fiscal Year 2019:

Actuarial Cost Method	Individual Entry-Age Normal
Amortization Method	Closed Amortization Period based on projected benefit factors
Remaining Amortization Period	19 years beginning January 1, 2019
Asset Valuation Method	5-Year smoothed market; 20% corridor (for funding purposes)
Price Inflation	2.50%
Salary Increases	N/A
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2017 valuation pursuant to an experience study of the period 2012 – 2016.
Mortality	RP-2014 Healthy Annuitant, Disabled Retiree and Employee mortality tables for males and females. The tables applied credibility adjustments of 135% for males and 125% for females and were adjusted for fully generational mortality improvements using Scale MP-2016.

Other Information:

Notes	There were no benefit changes during the year.

A detailed description of the actuarial assumptions and methods used to determine the Fiscal Year 2019 employer contribution rate can be found in the December 31, 2017 Arkansas Local Police and Fire Retirement System compiled annual actuarial valuation report.

SECTION C

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 67 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 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 7.00%; the municipal bond rate is 2.75%; and the resulting SDR is 7.00%.

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; and
- Unfunded Liability contributions for current and future members.

Employers participating in LOPFI are required by Arkansas code to make the contributions developed by the Retirement System actuary based on assumptions and policies established by the Retirement System Board of Trustees (the actuarially determined contribution). Our understanding is that the Retirement System has always collected the actuarially determined contribution from participating employers. Based on this, we assume that in the future LOPFI will receive the actuarially determined contribution from each employer and show as the employer contributions in our cash flow projections the projected actuarially determined contribution.

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 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 Beginning January 1, 2020
(Years 1-50)

Year	Number of Local Plan Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
0	-				
1	-	$ -	$ -	$ 8,496	$ 8,496
2	-	-	-	8,496	8,496
3	-	-	-	5,426	5,426
4	-	-	-	5,561	5,561
5	-	-	-	5,703	5,703
6	-	-	-	5,845	5,845
7	-	-	-	5,994	5,994
8	-	-	-	6,144	6,144
9	-	-	-	6,301	6,301
10	-	-	-	6,458	6,458
11	-	-	-	6,622	6,622
12	-	-	-	6,786	6,786
13	-	-	-	6,958	6,958
14	-	-	-	7,130	7,130
15	-	-	-	7,310	7,310
16	-	-	-	7,489	7,489
17	-	-	-	7,676	7,676
18	-	-	-	7,870	7,870
19	-	-	-	-	-
20	-	-	-	-	-
21	-	-	-	-	-
22	-	-	-	-	-
23	-	-	-	-	-
24	-	-	-	-	-
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	-	-	-	-	-
29	-	-	-	-	-
30	-	-	-	-	-
31	-	-	-	-	-
32	-	-	-	-	-
33	-	-	-	-	-
34	-	-	-	-	-
35	-	-	-	-	-
36	-	-	-	-	-
37	-	-	-	-	-
38	-	-	-	-	-
39	-	-	-	-	-
40	-	-	-	-	-
41	-	-	-	-	-
42	-	-	-	-	-
43	-	-	-	-	-
44	-	-	-	-	-
45	-	-	-	-	-
46	-	-	-	-	-
47	-	-	-	-	-
48	-	-	-	-	-
49	-	-	-	-	-
50	-	-	-	-	-

Single Discount Rate Development
Projection of Contributions Beginning January 1, 2020
(Years 51-100)

Year	Number of Local Plan Employees	Contributions from Current Employees	Normal Cost Contributions	UAL Contributions	Total Contributions
51	-	$ -	$ -	$ -	$ -
52	-	-	-	-	-
53	-	-	-	-	-
54	-	-	-	-	-
55	-	-	-	-	-
56	-	-	-	-	-
57	-	-	-	-	-
58	-	-	-	-	-
59	-	-	-	-	-
60	-	-	-	-	-
61	-	-	-	-	-
62	-	-	-	-	-
63	-	-	-	-	-
64	-	-	-	-	-
65	-	-	-	-	-
66	-	-	-	-	-
67	-	-	-	-	-
68	-	-	-	-	-
69	-	-	-	-	-
70	-	-	-	-	-
71	-	-	-	-	-
72	-	-	-	-	-
73	-	-	-	-	-
74	-	-	-	-	-
75	-	-	-	-	-
76	-	-	-	-	-
77	-	-	-	-	-
78	-	-	-	-	-
79	-	-	-	-	-
80	-	-	-	-	-
81	-	-	-	-	-
82	-	-	-	-	-
83	-	-	-	-	-
84	-	-	-	-	-
85	-	-	-	-	-
86	-	-	-	-	-
87	-	-	-	-	-
88	-	-	-	-	-
89	-	-	-	-	-
90	-	-	-	-	-
91	-	-	-	-	-
92	-	-	-	-	-
93	-	-	-	-	-
94	-	-	-	-	-
95	-	-	-	-	-
96	-	-	-	-	-
97	-	-	-	-	-
98	-	-	-	-	-
99	-	-	-	-	-
100	-	-	-	-	-

Single Discount Rate Development
Projection of Plan Fiduciary Net Position
Beginning January 1, 2020
(Years 1-50)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.00%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
1	$ -	$ 8,496	$ -	$ -	$ -
2	-	8,496	-	-	-
3	-	5,426	-	-	-
4	-	5,561	-	-	-
5	-	5,703	-	-	-
6	-	5,845	-	-	-
7	-	5,994	-	-	-
8	-	6,144	-	-	-
9	-	6,301	-	-	-
10	-	6,458	-	-	-
11	-	6,622	-	-	-
12	-	6,786	-	-	-
13	-	6,958	-	-	-
14	-	7,130	-	-	-
15	-	7,310	-	-	-
16	-	7,489	-	-	-
17	-	7,676	-	-	-
18	-	7,870	-	-	-
19	-	-	-	-	-
20	-	-	-	-	-
21	-	-	-	-	-
22	-	-	-	-	-
23	-	-	-	-	-
24	-	-	-	-	-
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	-	-	-	-	-
29	-	-	-	-	-
30	-	-	-	-	-
31	-	-	-	-	-
32	-	-	-	-	-
33	-	-	-	-	-
34	-	-	-	-	-
35	-	-	-	-	-
36	-	-	-	-	-
37	-	-	-	-	-
38	-	-	-	-	-
39	-	-	-	-	-
40	-	-	-	-	-
41	-	-	-	-	-
42	-	-	-	-	-
43	-	-	-	-	-
44	-	-	-	-	-
45	-	-	-	-	-
46	-	-	-	-	-
47	-	-	-	-	-
48	-	-	-	-	-
49	-	-	-	-	-
50	-	-	-	-	-

Single Discount Rate Development
Projection of Plan Fiduciary Net Position
Beginning January 1, 2020
(Years 51-100)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.00%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
51	$ -	$ -	$ -	$ -	$ -
52	-	-	-	-	-
53	-	-	-	-	-
54	-	-	-	-	-
55	-	-	-	-	-
56	-	-	-	-	-
57	-	-	-	-	-
58	-	-	-	-	-
59	-	-	-	-	-
60	-	-	-	-	-
61	-	-	-	-	-
62	-	-	-	-	-
63	-	-	-	-	-
64	-	-	-	-	-
65	-	-	-	-	-
66	-	-	-	-	-
67	-	-	-	-	-
68	-	-	-	-	-
69	-	-	-	-	-
70	-	-	-	-	-
71	-	-	-	-	-
72	-	-	-	-	-
73	-	-	-	-	-
74	-	-	-	-	-
75	-	-	-	-	-
76	-	-	-	-	-
77	-	-	-	-	-
78	-	-	-	-	-
79	-	-	-	-	-
80	-	-	-	-	-
81	-	-	-	-	-
82	-	-	-	-	-
83	-	-	-	-	-
84	-	-	-	-	-
85	-	-	-	-	-
86	-	-	-	-	-
87	-	-	-	-	-
88	-	-	-	-	-
89	-	-	-	-	-
90	-	-	-	-	-
91	-	-	-	-	-
92	-	-	-	-	-
93	-	-	-	-	-
94	-	-	-	-	-
95	-	-	-	-	-
96	-	-	-	-	-
97	-	-	-	-	-
98	-	-	-	-	-
99	-	-	-	-	-
100	-	-	-	-	-

Single Discount Rate Development
Present Values of Projected Benefits
Beginning January 1, 2020
(Years 1-50)

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)
1	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-

Single Discount Rate Development
Present Values of Projected Benefits
Beginning January 1, 2020
(Years 51-100)

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)
51	$ -	$ -	$ -	$ -	$ -	$ -	$ -
52	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-
97	-	-	-	-	-	-	-
98	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-
				Totals	$ -	$ -	$ -

SECTION D

GLOSSARY OF TERMS

Glossary of Terms

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

Glossary of Terms (Continued)

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

Glossary of Terms (Continued)

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

Glossary of Terms (Concluded)

Total Pension Expense	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: 1. Service Cost; 2. Interest on the Total Pension Liability; 3. Current-Period Benefit Changes; 4. Employee Contributions (made negative for addition here); 5. Projected Earnings on Plan Investments (made negative for addition here); 6. Pension Plan Administrative Expense; 7. Other Changes in Plan Fiduciary Net Position; 8. Recognition of Outflow (Inflow) of Resources due to Liabilities; and 9. Recognition of Outflow (Inflow) of Resources due to Assets.
Total Pension Liability (TPL)	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and valuation assets.
Valuation Assets	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 68, the valuation asset is equal to the market value of assets.