

Arbor Park SD 145 Regular

GASB Statement No. 68 Employer Reporting
Accounting Schedules
December 31, 2020



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March 26, 2021

Arbor Park SD 145
Illinois Municipal Retirement Fund

Ladies and Gentlemen:

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

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

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

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

This report complements the actuarial valuation report that was provided to the IMRF and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 2020 for additional discussions of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, the information contained in this report is accurate, and fairly represents the GASB 68 information related to Arbor Park SD 145. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,



Mark Buis, FSA, EA, FCA, MAAA



Francois Pieterse, ASA, FCA, MAAA

MB/FP:bd



SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2020

Actuarial Valuation Date	December 31, 2020
Measurement Date of the Net Pension Liability	December 31, 2020
Fiscal Year End	June 30, 2021

Membership

Number of	
- Retirees and Beneficiaries	259
- Inactive, Non-Retired Members	246
- Active Members	89
- Total	594
Covered Valuation Payroll ⁽¹⁾	\$ 2,507,586

Net Pension Liability

Total Pension Liability/(Asset)	\$ 13,389,219
Plan Fiduciary Net Position	12,787,005
Net Pension Liability/(Asset)	\$ 602,214
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	95.50%
Net Pension Liability as a Percentage of Covered Valuation Payroll	24.02%

Development of the Single Discount Rate as of December 31, 2020

Long-Term Expected Rate of Investment Return	7.25%
Long-Term Municipal Bond Rate ⁽²⁾	2.00%
Last year ending December 31 in the 2021 to 2120 projection period for which projected benefit payments are fully funded	2120
Resulting Single Discount Rate based on the above development	7.25%

Single Discount Rate calculated using December 31, 2019 Measurement Date 7.25%

Total Pension Expense/(Income) \$ 425,137

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	\$ 0	\$ 31,812
Changes in assumptions	0	13,199
Net difference between projected and actual earnings on pension plan investments	622,562	1,772,782
Total	\$ 622,562	\$ 1,817,793

⁽¹⁾ Does not necessarily represent Covered Employee Payroll as defined in GASB Statement No. 68.

⁽²⁾ Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of December 31, 2020. 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, 2020.

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, 2020 Annual Actuarial Valuation report dated March 15, 2021);
- The number and classes of employees covered by the benefit terms (page 1);
- For the current year, sources of changes in the net pension liability (page 11);
- Significant assumptions and methods used to calculate the total pension liability (page 16);
- Inputs to the single discount rate (page 17);
- Certain information about mortality assumptions and the dates of experience studies (page 14 and page 16);
- The date of the valuation used to determine the total pension liability (page 1);
- Information about changes of assumptions or other inputs and benefit terms (pages 14 and 16);
- The basis for determining contributions to the plan, including a description of the plan's funding policy, as well as member and employer contribution requirements (please see page A-3, B-5 and Section D of the December 31, 2020 Annual Actuarial Valuation report dated March 15, 2021, as well as page 14);
- The total pension liability, fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability (page 11);
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes (page 11); and
- A description of the fund that administers the pension plan (to be provided by IMRF).

Required Supplementary Information

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

- Sources of changes in the net pension liability (page 12);
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll (page 12); and
- Comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy (page 13).

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

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net pension liability and pension expense should be measured as of the employer's "measurement date" which may not be earlier than the fiscal year-end date, consistently applied from period to period. 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, 2020 and a measurement date of December 31, 2020.

Single Discount Rate

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

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%, the municipal bond rate is 2.00% (based on the daily rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" described on page 1), and the resulting Single Discount Rate is 7.25%.

Other Observations

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

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

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

This funding policy results in a crossover date in 2120 and a discount rate of 7.25%. The projections in this report are strictly for the purposes of determining the GASB discount rate and are different from a funding projection for the ongoing plan.

Limitations of Assets as a Percent of Total Pension Liability Measurements

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

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

Limitations of Funded Status Measurements

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

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

Limitation of Project Scope

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

SECTION B

FINANCIAL STATEMENTS

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

Calendar Year Ended December 31, 2020

A. Expense/(Income)

1. Service Cost	\$	245,841
2. Interest on the Total Pension Liability		947,525
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(116,798)
5. Projected Earnings on Plan Investments (made negative for addition here)		(841,760)
6. Other Changes in Plan Fiduciary Net Position		768,713
7. Recognition of Outflow (Inflow) of Resources due to Liabilities		(215,748)
8. Recognition of Outflow (Inflow) of Resources due to Assets		(362,636)
9. Total Pension Expense/(Income)	\$	425,137

Recognition of Deferred Outflows and Inflows of Resources

Differences between expected and actual experience and changes in assumptions are recognized in pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with a retirement benefit through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 697.28 years. Additionally, the total plan membership (active employees and inactive employees) was 600. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 1.1621 years.

Additionally, differences between projected and actual earnings on pension plan investments should be recognized in pension expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.

Statement of Outflows and Inflows Arising from Current Reporting Period Calendar Year Ended December 31, 2020

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ (228,062)
2. Assumption Changes (gains) or losses	\$ (94,624)
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	1.1621
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	\$ (196,250)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$ (81,425)
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$ (277,675)
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	\$ (31,812)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$ (13,199)
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$ (45,011)

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (942,120)
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	\$ (188,424)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (753,696)

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, 2020

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	\$ 61,927	\$ 277,675	\$ (215,748)
2. Due to Assets	328,853	691,489	(362,636)
3. Total	\$ 390,780	\$ 969,164	\$ (578,384)

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	\$ 61,927	\$ 196,250	\$ (134,323)
2. Assumption changes	0	81,425	\$ (81,425)
3. Net difference between projected and actual earnings on pension plan investments	328,853	691,489	(362,636)
4. Total	\$ 390,780	\$ 969,164	\$ (578,384)

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	\$ 0	\$ 31,812	\$ (31,812)
2. Assumption changes	0	13,199	\$ (13,199)
3. Net difference between projected and actual earnings on pension plan investments	622,562	1,772,782	(1,150,220)
4. Total	\$ 622,562	\$ 1,817,793	\$ (1,195,231)

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
2021	\$ (425,221)
2022	(135,152)
2023	(446,434)
2024	(188,424)
2025	0
Thereafter	0
Total	\$ (1,195,231)

Recognition of Deferred Outflows and Inflows of Resources

Reporting Date - December 31, 2020

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) due to Differences Between Expected and Actual Experience on Liabilities					
2014	\$ (192,102)	1.2402	\$ 0	\$ 0	0.0000
2015	33,893	1.2621	0	0	0.0000
2016	425,635	1.2840	0	0	0.0000
2017	(354,752)	1.1703	0	0	0.0000
2018	133,408	1.2578	0	0	0.0000
2019	377,556	1.1962	61,927	0	0.0000
2020	(228,062)	1.1621	(196,250)	(31,812)	0.1621
Total			\$ (134,323)	\$ (31,812)	
Deferred Outflow (Inflow) due to Assumption Changes					
2014	\$ 495,070	1.2402	\$ 0	\$ 0	0.0000
2015	11,816	1.2621	0	0	0.0000
2016	(24,340)	1.2840	0	0	0.0000
2017	(389,040)	1.1703	0	0	0.0000
2018	290,097	1.2578	0	0	0.0000
2019	0	1.1962	0	0	0.0000
2020	(94,624)	1.1621	(81,425)	(13,199)	0.1621
Total			\$ (81,425)	\$ (13,199)	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2016	\$ 87,861	5.0000	\$ 17,573	\$ 0	0.0000
2017	(1,225,276)	5.0000	(245,055)	(245,056)	1.0000
2018	1,556,402	5.0000	311,280	622,562	2.0000
2019	(1,290,050)	5.0000	(258,010)	(774,030)	3.0000
2020	(942,120)	5.0000	(188,424)	(753,696)	4.0000
Total			\$ (362,636)	\$ (1,150,220)	

Schedule of Changes in Net Pension Liability and Related Ratios Current Period Calendar Year Ended December 31, 2020

A. Total pension liability	
1. Service Cost	\$ 245,841
2. Interest on the Total Pension Liability	947,525
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	(228,062)
5. Changes of assumptions	(94,624)
6. Benefit payments, including refunds of employee contributions	(855,688)
7. Net change in total pension liability	\$ 14,992
8. Total pension liability – beginning	13,374,227
9. Total pension liability – ending	\$ 13,389,219
B. Plan fiduciary net position	
1. Contributions – employer	\$ 292,886
2. Contributions – employee	116,798
3. Net investment income	1,783,880
4. Benefit payments, including refunds of employee contributions	(855,688)
5. Other (Net Transfer)	(768,713)
6. Net change in plan fiduciary net position	\$ 569,163
7. Plan fiduciary net position – beginning	12,217,842
8. Plan fiduciary net position – ending	\$ 12,787,005
C. Net pension liability/(asset)	\$ 602,214
D. Plan fiduciary net position as a percentage of the total pension liability	95.50%
E. Covered Valuation payroll	\$ 2,507,586
F. Net pension liability as a percentage of covered valuation payroll	24.02%

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

	1% Decrease 6.25%	Current Single Discount Rate Assumption 7.25%	1% Increase 8.25%
Total Pension Liability	\$ 14,729,246	\$ 13,389,219	\$ 12,267,415
Plan Fiduciary Net Position	12,787,005	12,787,005	12,787,005
Net Pension Liability/(Asset)	\$ 1,942,241	\$ 602,214	\$ (519,590)



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,	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Total Pension Liability										
Service Cost	\$ 245,841	\$ 238,994	\$ 218,681	\$ 217,754	\$ 242,420	\$ 217,911	\$ 240,979			
Interest on the Total Pension Liability	947,525	897,692	874,444	904,517	846,188	816,194	764,359			
Benefit Changes	0	0	0	0	0	0	0			
Difference between Expected and Actual Experience	(228,062)	377,556	133,408	(354,752)	425,635	33,893	(192,102)			
Assumption Changes	(94,624)	0	290,097	(389,040)	(24,340)	11,816	495,070			
Benefit Payments and Refunds	(855,688)	(804,945)	(803,238)	(756,569)	(703,481)	(649,543)	(559,875)			
Net Change in Total Pension Liability	14,992	709,297	713,392	(378,090)	786,422	430,271	748,431			
Total Pension Liability - Beginning	13,374,227	12,664,930	11,951,538	12,329,628	11,543,206	11,112,935	10,364,504			
Total Pension Liability - Ending (a)	\$ 13,389,219	\$ 13,374,227	\$ 12,664,930	\$ 11,951,538	\$ 12,329,628	\$ 11,543,206	\$ 11,112,935			
Plan Fiduciary Net Position										
Employer Contributions	\$ 292,886	\$ 230,899	\$ 272,104	\$ 216,301	\$ 253,337	\$ 270,455	\$ 255,429			
Employee Contributions	116,798	108,121	100,401	91,154	92,944	96,371	88,024			
Pension Plan Net Investment Income	1,783,880	2,040,880	(703,549)	1,982,102	667,131	50,337	582,648			
Benefit Payments and Refunds	(855,688)	(804,945)	(803,238)	(756,569)	(703,481)	(649,543)	(559,875)			
Other	(768,713)	107,297	166,264	(689,907)	210,870	163,369	182,698			
Net Change in Plan Fiduciary Net Position	569,163	1,682,252	(968,018)	843,081	520,801	(69,011)	548,924			
Plan Fiduciary Net Position - Beginning	12,217,842	10,535,590	11,503,608	10,660,527	10,139,726	10,208,737	9,659,813			
Plan Fiduciary Net Position - Ending (b)	\$ 12,787,005	\$ 12,217,842	\$ 10,535,590	\$ 11,503,608	\$ 10,660,527	\$ 10,139,726	\$ 10,208,737			
Net Pension Liability/(Asset) - Ending (a) - (b)	602,214	1,156,385	2,129,340	447,930	1,669,101	1,403,480	904,198			
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	95.50%	91.35 %	83.19 %	96.25 %	86.46%	87.84 %	91.86 %			
Covered Valuation Payroll	\$ 2,507,586	\$ 2,402,690	\$ 2,228,531	\$ 2,028,804	\$ 2,067,791	\$ 2,137,254	\$ 1,911,173			
Net Pension Liability as a Percentage of Covered Valuation Payroll	24.02%	48.13 %	95.55 %	22.08 %	80.72%	65.67 %	47.31 %			



Multiyear Schedule of Contributions

Last 10 Calendar Years

<u>Calendar Year Ending December 31,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Valuation Payroll</u>	<u>Actual Contribution as a % of Covered Valuation Payroll</u>
2014	\$ 254,377	\$ 255,429	\$ (1,052)	\$ 1,911,173	13.37%
2015	270,790	270,455	335	2,137,254	12.65%
2016	247,101	253,337	(6,236)	2,067,791	12.25%
2017	216,676	216,301	375	2,028,804	10.66%
2018	272,104	272,104	0	2,228,531	12.21%
2019	230,899	230,899	0	2,402,690	9.61%
2020	292,886 *	292,886	0	2,507,586	11.68%

* Estimated based on contribution rate of 11.68% and covered valuation payroll of \$2,507,586.
This number should be verified by the auditor.

Notes to Schedule of Contributions

Summary of Actuarial Methods and Assumptions Used in the Calculation of the 2020 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 calendar year in which contributions are reported.

Methods and Assumptions Used to Determine 2020 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): 23-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 18 years for most employers (three employers were financed over 27 years and four others were financed over 28 years).
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage growth	3.25%
Price Inflation	2.50%
Salary Increases	3.35% to 14.25% including inflation
Investment Rate of Return	7.25%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2017 valuation pursuant to an experience study of the period 2014-2016.
Mortality	For non-disabled retirees, IMRF specific mortality rates were used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Blue Collar Healthy Annuitant Mortality Table with adjustments to match current IMRF experience. For disabled retirees, IMRF specific mortality rates were used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Disabled Retirees Mortality Table applying the same adjustments that were applied for non-disabled lives. For active members, IMRF specific mortality rates were used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Employee Mortality Table with adjustments to match current IMRF experience.

Other Information:

Notes There were no benefit changes during the year.

* Based on Valuation Assumptions used in the December 31, 2018 actuarial valuation.



Development of Market Value of Assets

Market Value of Assets as of December 31, 2020

1. Employee Contribution Reserve (MDF Assets from IMRF)	\$	1,695,919
2. Employer Contribution Reserve (EAF assets from IMRF)		2,892,066
3. Annuitant Reserve		8,158,087
4. Miscellaneous Adjustment*		40,933
5. Net Market Value	\$	12,787,005

* Includes an adjustment factor of 0.003211435 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	\$	292,886
b.) Accelerated payments and Reserve Payments		-
	\$	292,886

2. Member

a.) Wage Reporting	\$	112,841
b.) Member Payments (i.e. ERI, Pension Payments)		3,957
Sub-total (Amount used for valuation on Schedule of Changes Page 11)	\$	116,798
c.) Voluntary Additional Plan	\$	26,759
Total Member Contributions (a+b+c)	\$	143,557

Total Employer and Member Contributions (1+2) \$ **436,443**



SECTION C

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 68 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk-free” rate is required, as described in the following paragraph.

The *Single Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 2.00%; and the resulting single discount rate is 7.25%.

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

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

Expected Contributions are developed based on the following:

- Member Contributions for current members
- Normal Cost contributions for current members
- Unfunded Liability contributions for current 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
2020	\$ 2,507,586				
2021	2,507,705	\$ 112,847	\$ 146,112	\$ 126,515	\$ 385,474
2022	2,271,297	102,208	118,028	105,077	325,314
2023	2,074,590	93,357	105,151	80,526	279,034
2024	1,912,060	86,043	96,349	52,446	234,837
2025	1,759,604	79,182	87,974	34,446	201,602
2026	1,612,862	72,579	80,161	35,307	188,047
2027	1,491,182	67,103	73,526	36,190	176,819
2028	1,394,247	62,741	68,197	37,095	168,034
2029	1,307,568	58,841	63,443	38,022	160,305
2030	1,217,626	54,793	58,719	38,973	152,485
2031	1,130,466	50,871	54,182	39,947	145,000
2032	1,054,444	47,450	50,331	40,946	138,727
2033	980,790	44,135	46,622	41,969	132,727
2034	904,171	40,688	42,802	43,019	126,509
2035	828,972	37,304	38,916	44,094	120,313
2036	755,663	34,005	35,251	45,196	114,452
2037	690,186	31,058	31,993	46,326	109,377
2038	634,953	28,573	29,183	47,484	105,239
2039	584,030	26,281	26,612	48,672	101,566
2040	523,704	23,567	23,657	49,888	97,112
2041	460,883	20,740	20,456	51,136	92,332
2042	414,295	18,643	17,858	52,414	88,916
2043	374,802	16,866	15,824	0	32,690
2044	339,226	15,265	14,055	0	29,320
2045	309,823	13,942	12,623	0	26,565
2046	284,795	12,816	11,463	0	24,279
2047	259,312	11,669	10,361	0	22,030
2048	232,717	10,472	9,207	0	19,679
2049	210,974	9,494	8,263	0	17,757
2050	195,129	8,781	7,547	0	16,328
2051	177,717	7,997	6,803	0	14,801
2052	163,680	7,366	6,169	0	13,535
2053	158,109	7,115	5,897	0	13,012
2054	150,250	6,761	5,545	0	12,306
2055	116,863	5,259	4,290	0	9,548
2056	81,308	3,659	2,985	0	6,643
2057	59,145	2,662	2,165	0	4,827
2058	36,773	1,655	1,346	0	3,001
2059	19,322	869	713	0	1,583
2060	5,621	253	211	0	464
2061	1,988	89	80	0	170
2062	945	43	43	0	85
2063	583	26	30	0	56
2064	382	17	22	0	39
2065	148	7	8	0	15
2066	1	0	0	0	0
2067	0	0	0	0	0
2068	0	0	0	0	0
2069	0	0	0	0	0
2070	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
2071	\$ 0	\$ 0	\$ 0	\$ 0	0
2072	0	0	0	0	0
2073	0	0	0	0	0
2074	0	0	0	0	0
2075	0	0	0	0	0
2076	0	0	0	0	0
2077	0	0	0	0	0
2078	0	0	0	0	0
2079	0	0	0	0	0
2080	0	0	0	0	0
2081	0	0	0	0	0
2082	0	0	0	0	0
2083	0	0	0	0	0
2084	0	0	0	0	0
2085	0	0	0	0	0
2086	0	0	0	0	0
2087	0	0	0	0	0
2088	0	0	0	0	0
2089	0	0	0	0	0
2090	0	0	0	0	0
2091	0	0	0	0	0
2092	0	0	0	0	0
2093	0	0	0	0	0
2094	0	0	0	0	0
2095	0	0	0	0	0
2096	0	0	0	0	0
2097	0	0	0	0	0
2098	0	0	0	0	0
2099	0	0	0	0	0
2100	0	0	0	0	0
2101	0	0	0	0	0
2102	0	0	0	0	0
2103	0	0	0	0	0
2104	0	0	0	0	0
2105	0	0	0	0	0
2106	0	0	0	0	0
2107	0	0	0	0	0
2108	0	0	0	0	0
2109	0	0	0	0	0
2110	0	0	0	0	0
2111	0	0	0	0	0
2112	0	0	0	0	0
2113	0	0	0	0	0
2114	0	0	0	0	0
2115	0	0	0	0	0
2116	0	0	0	0	0
2117	0	0	0	0	0
2118	0	0	0	0	0
2119	0	0	0	0	0
2120	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				
	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Investment Earnings at 7.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
2021	\$ 12,787,005	\$ 385,474	\$ 872,795	\$ 909,702	\$ 13,209,386
2022	13,209,386	325,313	909,596	936,871	13,561,975
2023	13,561,975	279,034	930,026	960,058	13,871,041
2024	13,871,041	234,837	959,020	979,858	14,126,716
2025	14,126,716	201,602	994,789	995,937	14,329,467
2026	14,329,467	188,047	1,037,106	1,008,646	14,489,055
2027	14,489,055	176,819	1,070,300	1,018,634	14,614,208
2028	14,614,208	168,033	1,104,753	1,026,168	14,703,656
2029	14,703,656	160,306	1,137,026	1,031,228	14,758,164
2030	14,758,164	152,485	1,172,588	1,033,635	14,771,697
2031	14,771,697	145,000	1,203,594	1,033,245	14,746,349
2032	14,746,349	138,727	1,221,565	1,030,544	14,694,054
2033	14,694,054	132,727	1,242,280	1,025,801	14,610,302
2034	14,610,302	126,508	1,262,324	1,018,794	14,493,280
2035	14,493,280	120,313	1,277,658	1,009,543	14,345,478
2036	14,345,478	114,452	1,285,913	998,325	14,172,342
2037	14,172,342	109,378	1,290,462	985,430	13,976,687
2038	13,976,687	105,240	1,301,169	970,716	13,751,473
2039	13,751,473	101,565	1,297,086	954,402	13,510,355
2040	13,510,355	97,112	1,303,670	936,528	13,240,325
2041	13,240,325	92,332	1,305,592	916,712	12,943,776
2042	12,943,776	88,915	1,294,937	895,470	12,633,225
2043	12,633,225	32,690	1,282,339	871,402	12,254,978
2044	12,254,978	29,320	1,266,474	844,424	11,862,248
2045	11,862,248	26,565	1,242,871	816,693	11,462,635
2046	11,462,635	24,279	1,215,190	788,626	11,060,350
2047	11,060,350	22,030	1,184,907	760,459	10,657,931
2048	10,657,931	19,679	1,153,085	732,333	10,256,858
2049	10,256,858	17,757	1,115,829	704,514	9,863,300
2050	9,863,300	16,328	1,075,479	677,367	9,481,515
2051	9,481,515	14,801	1,040,289	650,886	9,106,913
2052	9,106,913	13,535	1,000,427	625,102	8,745,123
2053	8,745,123	13,012	955,112	600,468	8,403,490
2054	8,403,490	12,306	917,584	577,011	8,075,222
2055	8,075,222	9,548	912,744	553,286	7,725,312
2056	7,725,312	6,643	891,686	528,564	7,368,833
2057	7,368,833	4,827	870,408	503,412	7,006,664
2058	7,006,664	3,001	847,528	477,905	6,640,042
2059	6,640,042	1,583	824,658	452,089	6,269,054
2060	6,269,054	464	793,091	426,276	5,902,704
2061	5,902,704	170	753,180	401,127	5,550,820
2062	5,550,820	85	713,658	377,020	5,214,267
2063	5,214,267	56	675,539	353,977	4,892,761
2064	4,892,761	39	638,972	331,969	4,585,798
2065	4,585,798	15	604,040	310,958	4,292,730
2066	4,292,730	0	570,226	290,914	4,013,418
2067	4,013,418	0	537,739	271,821	3,747,499
2068	3,747,499	0	506,682	253,648	3,494,465
2069	3,494,465	0	477,059	236,358	3,253,764
2070	3,253,764	0	448,869	219,911	3,024,806

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



Single Discount Rate Development

Projection of Plan Fiduciary Net Position (Concluded)

Year	Projected Beginning Plan Net Position		Projected Total Contributions		Projected Benefit Payments		Projected Investment Earnings at 7.25%		Projected Ending Plan Net Position	
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)					
2071	\$ 3,024,806	\$ 0	\$ 422,092	\$ 204,265	\$ 2,806,979					
2072	2,806,979	0	396,692	189,378	2,599,665					
2073	2,599,665	0	372,623	175,204	2,402,247					
2074	2,402,247	0	349,814	161,704	2,214,137					
2075	2,214,137	0	328,166	148,837	2,034,808					
2076	2,034,808	0	307,565	136,569	1,863,813					
2077	1,863,813	0	287,898	124,873	1,700,787					
2078	1,700,787	0	269,044	113,725	1,545,468					
2079	1,545,468	0	250,890	103,111	1,397,689					
2080	1,397,689	0	233,336	93,022	1,257,375					
2081	1,257,375	0	216,305	83,456	1,124,526					
2082	1,124,526	0	199,743	74,414	999,196					
2083	999,196	0	183,602	65,903	881,497					
2084	881,497	0	167,853	57,930	771,574					
2085	771,574	0	152,502	50,508	669,579					
2086	669,579	0	137,568	43,645	575,656					
2087	575,656	0	123,091	37,351	489,916					
2088	489,916	0	109,134	31,632	412,414					
2089	412,414	0	95,779	26,489	343,123					
2090	343,123	0	83,130	21,916	281,909					
2091	281,909	0	71,280	17,900	228,528					
2092	228,528	0	60,321	14,420	182,628					
2093	182,628	0	50,332	11,448	143,743					
2094	143,743	0	41,372	8,948	111,319					
2095	111,319	0	33,464	6,879	84,734					
2096	84,734	0	26,605	5,196	63,324					
2097	63,324	0	20,764	3,851	46,411					
2098	46,411	0	15,889	2,799	33,321					
2099	33,321	0	11,905	1,992	23,407					
2100	23,407	0	8,723	1,386	16,070					
2101	16,070	0	6,242	943	10,771					
2102	10,771	0	4,357	626	7,040					
2103	7,040	0	2,963	405	4,482					
2104	4,482	0	1,960	255	2,777					
2105	2,777	0	1,261	156	1,672					
2106	1,672	0	787	93	978					
2107	978	0	477	54	556					
2108	556	0	280	30	306					
2109	306	0	159	17	164					
2110	164	0	87	9	86					
2111	86	0	47	5	43					
2112	43	0	24	2	22					
2113	22	0	12	1	11					
2114	11	0	6	1	5					
2115	5	0	3	0	3					
2116	3	0	1	0	1					
2117	1	0	1	0	1					
2118	1	0	0	0	1					
2119	1	0	0	0	1					
2120	1	0	0	0	1					

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}
2021	\$ 12,787,005	\$ 872,795	\$ 872,795	\$ 0	\$ 842,779	\$ 0	\$ 842,779
2022	13,209,386	909,596	909,596	0	818,941	0	818,941
2023	13,561,975	930,026	930,026	0	780,732	0	780,732
2024	13,871,041	959,020	959,020	0	750,649	0	750,649
2025	14,126,716	994,789	994,789	0	726,011	0	726,011
2026	14,329,467	1,037,106	1,037,106	0	705,729	0	705,729
2027	14,489,055	1,070,300	1,070,300	0	679,083	0	679,083
2028	14,614,208	1,104,753	1,104,753	0	653,560	0	653,560
2029	14,703,656	1,137,026	1,137,026	0	627,182	0	627,182
2030	14,758,164	1,172,588	1,172,588	0	603,074	0	603,074
2031	14,771,697	1,203,594	1,203,594	0	577,176	0	577,176
2032	14,746,349	1,221,565	1,221,565	0	546,195	0	546,195
2033	14,694,054	1,242,280	1,242,280	0	517,909	0	517,909
2034	14,610,302	1,262,324	1,262,324	0	490,690	0	490,690
2035	14,493,280	1,277,658	1,277,658	0	463,078	0	463,078
2036	14,345,478	1,285,913	1,285,913	0	434,564	0	434,564
2037	14,172,342	1,290,462	1,290,462	0	406,621	0	406,621
2038	13,976,687	1,301,169	1,301,169	0	382,279	0	382,279
2039	13,751,473	1,297,086	1,297,086	0	355,319	0	355,319
2040	13,510,355	1,303,670	1,303,670	0	332,982	0	332,982
2041	13,240,325	1,305,592	1,305,592	0	310,930	0	310,930
2042	12,943,776	1,294,937	1,294,937	0	287,546	0	287,546
2043	12,633,225	1,282,339	1,282,339	0	265,499	0	265,499
2044	12,254,978	1,266,474	1,266,474	0	244,489	0	244,489
2045	11,862,248	1,242,871	1,242,871	0	223,713	0	223,713
2046	11,462,635	1,215,190	1,215,190	0	203,945	0	203,945
2047	11,060,350	1,184,907	1,184,907	0	185,420	0	185,420
2048	10,657,931	1,153,085	1,153,085	0	168,242	0	168,242
2049	10,256,858	1,115,829	1,115,829	0	151,801	0	151,801
2050	9,863,300	1,075,479	1,075,479	0	136,421	0	136,421
2051	9,481,515	1,040,289	1,040,289	0	123,037	0	123,037
2052	9,106,913	1,000,427	1,000,427	0	110,324	0	110,324
2053	8,745,123	955,112	955,112	0	98,207	0	98,207
2054	8,403,490	917,584	917,584	0	87,970	0	87,970
2055	8,075,222	912,744	912,744	0	81,591	0	81,591
2056	7,725,312	891,686	891,686	0	74,320	0	74,320
2057	7,368,833	870,408	870,408	0	67,643	0	67,643
2058	7,006,664	847,528	847,528	0	61,412	0	61,412
2059	6,640,042	824,658	824,658	0	55,716	0	55,716
2060	6,269,054	793,091	793,091	0	49,961	0	49,961
2061	5,902,704	753,180	753,180	0	44,239	0	44,239
2062	5,550,820	713,658	713,658	0	39,084	0	39,084
2063	5,214,267	675,539	675,539	0	34,496	0	34,496
2064	4,892,761	638,972	638,972	0	30,423	0	30,423
2065	4,585,798	604,040	604,040	0	26,816	0	26,816
2066	4,292,730	570,226	570,226	0	23,603	0	23,603
2067	4,013,418	537,739	537,739	0	20,754	0	20,754
2068	3,747,499	506,682	506,682	0	18,233	0	18,233
2069	3,494,465	477,059	477,059	0	16,007	0	16,007
2070	3,253,764	448,869	448,869	0	14,043	0	14,043

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



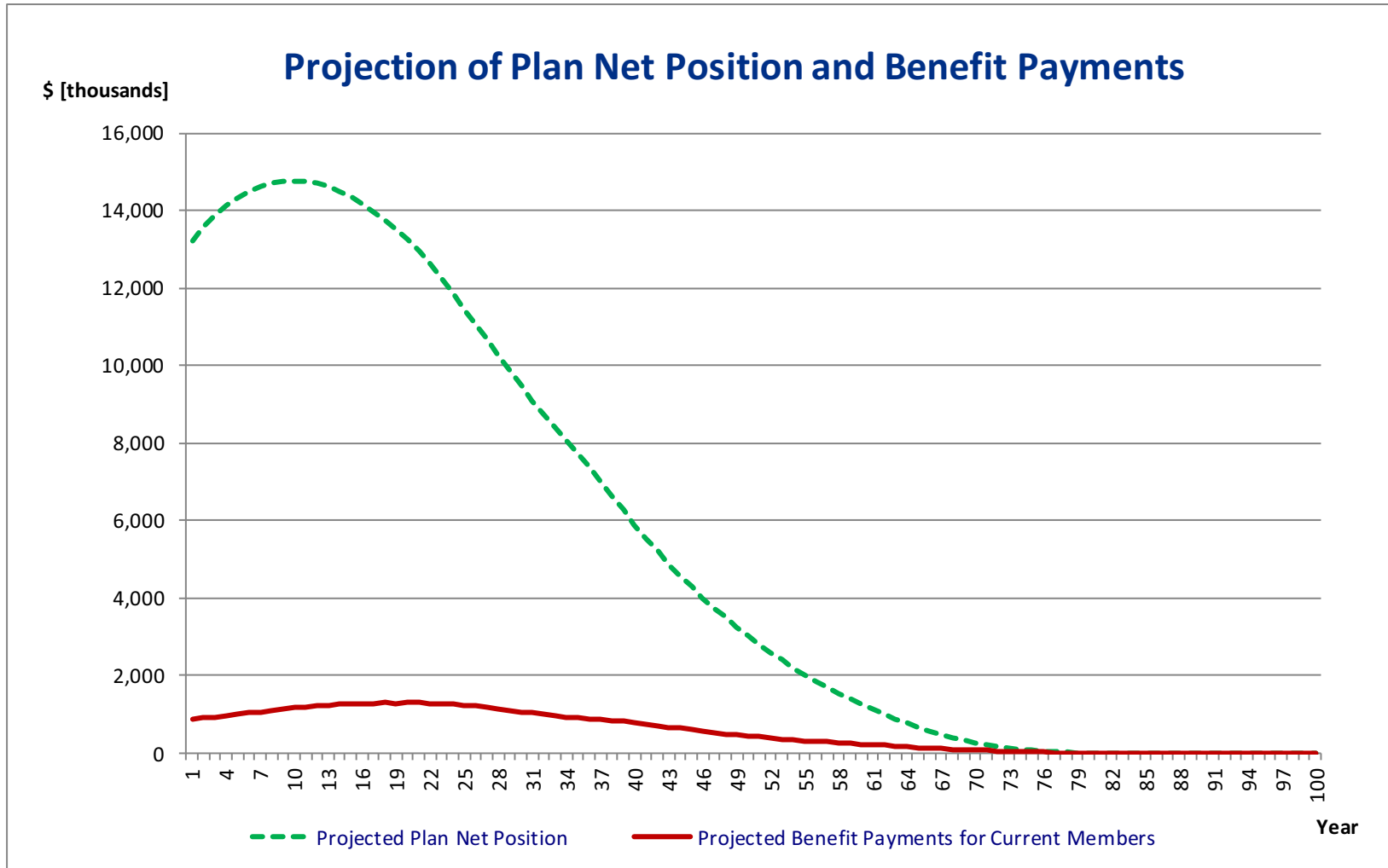
Single Discount Rate Development

Present Values of Projected Benefits (Concluded)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
2071	\$ 3,024,806	\$ 422,092	\$ 422,092	\$ 0	\$ 12,312	\$ 0	\$ 12,312
2072	2,806,979	396,692	396,692	0	10,789	0	10,789
2073	2,599,665	372,623	372,623	0	9,450	0	9,450
2074	2,402,247	349,814	349,814	0	8,271	0	8,271
2075	2,214,137	328,166	328,166	0	7,235	0	7,235
2076	2,034,808	307,565	307,565	0	6,322	0	6,322
2077	1,863,813	287,898	287,898	0	5,518	0	5,518
2078	1,700,787	269,044	269,044	0	4,808	0	4,808
2079	1,545,468	250,890	250,890	0	4,181	0	4,181
2080	1,397,689	233,336	233,336	0	3,625	0	3,625
2081	1,257,375	216,305	216,305	0	3,134	0	3,134
2082	1,124,526	199,743	199,743	0	2,698	0	2,698
2083	999,196	183,602	183,602	0	2,312	0	2,312
2084	881,497	167,853	167,853	0	1,971	0	1,971
2085	771,574	152,502	152,502	0	1,670	0	1,670
2086	669,579	137,568	137,568	0	1,404	0	1,404
2087	575,656	123,091	123,091	0	1,172	0	1,172
2088	489,916	109,134	109,134	0	969	0	969
2089	412,414	95,779	95,779	0	793	0	793
2090	343,123	83,130	83,130	0	641	0	641
2091	281,909	71,280	71,280	0	513	0	513
2092	228,528	60,321	60,321	0	405	0	405
2093	182,628	50,332	50,332	0	315	0	315
2094	143,743	41,372	41,372	0	241	0	241
2095	111,319	33,464	33,464	0	182	0	182
2096	84,734	26,605	26,605	0	135	0	135
2097	63,324	20,764	20,764	0	98	0	98
2098	46,411	15,889	15,889	0	70	0	70
2099	33,321	11,905	11,905	0	49	0	49
2100	23,407	8,723	8,723	0	33	0	33
2101	16,070	6,242	6,242	0	22	0	22
2102	10,771	4,357	4,357	0	15	0	15
2103	7,040	2,963	2,963	0	9	0	9
2104	4,482	1,960	1,960	0	6	0	6
2105	2,777	1,261	1,261	0	3	0	3
2106	1,672	787	787	0	2	0	2
2107	978	477	477	0	1	0	1
2108	556	280	280	0	1	0	1
2109	306	159	159	0	0	0	0
2110	164	87	87	0	0	0	0
2111	86	47	47	0	0	0	0
2112	43	24	24	0	0	0	0
2113	22	12	12	0	0	0	0
2114	11	6	6	0	0	0	0
2115	5	3	3	0	0	0	0
2116	3	1	1	0	0	0	0
2117	1	1	1	0	0	0	0
2118	1	0	0	0	0	0	0
2119	1	0	0	0	0	0	0
2120	1	0	0	0	0	0	0
Totals					\$ 15,041,814	\$ -	\$ 15,041,814

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 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)

<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.