

Wyoming Judicial Retirement System

GASB Statement Nos. 67 and 68 Accounting and Financial
Reporting for Pensions

For Measurement Date as of December 31, 2021





June 2, 2022

Board of Trustees
Wyoming Judicial Retirement System

Dear Board Members:

This report provides information required by the Wyoming Judicial Retirement System (WRS) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67 and 68 for the Wyoming Retirement System ("WRS"). These calculations have been made on a basis that is consistent with our understanding of these Statements.

GASB Statement No. 67 is the accounting standard that applies to the stand-alone financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust.

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

This report is based upon information, furnished to us by WRS, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by WRS.

This report complements the actuarial valuation report that was provided to WRS and should be considered in conjunction with that report. Please see the actuarial valuation report as of January 1, 2021 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. Furthermore, this report incorporates the assumptions adopted by the Board at the November 17, 2021 and the February 17, 2022 meetings. For a detailed description of the experience related to these assumptions, as well as the rationale for any changes, please see our latest Wyoming Retirement System Actuarial Experience Study Report that covered the five-year investigation period ending December 31, 2020.

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.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Wyoming Judicial Retirement System as of the valuation date.

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.

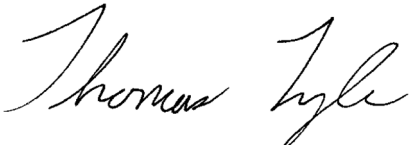
Paul T. Wood, Thomas A. Lyle, and Dana Woolfrey are members of the American Academy of Actuaries (MAAA) and are experienced in performing valuations for public retirement systems. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

By 

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Table of Contents

	<u>Page</u>
Section A Executive Summary	
Executive Summary	1
Discussion	2-5
Section B Financial Statements	
Statement of Pension Expense under GASB Statement No. 68	7
Statement of Outflows and Inflows Arising from Current Reporting Period	8
History of Deferred Outflows and Inflows of Resources by Source	9
Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods.....	10
Statement of Fiduciary Net Position	11
Statement of Changes in Fiduciary Net Position	12
Section C Required Supplementary Information	
Schedule of Changes in Net Pension Liability and Related Ratios Current Reporting Period.	14
Schedule of Changes in Net Pension Liability and Related Ratios Multiyear	15
Schedule of Net Pension Liability Multiyear	16
Schedule of Contributions Multiyear	17
Notes to Schedule of Contributions	18
Schedule of Investment Returns Multiyear.....	19
Section D Notes to Financial Statements	
Sensitivity of Net Pension Liability to the Single Discount Rate Assumption	21
Summary of Population Statistics	22
Section E Summary of Benefits	24-25
Section F Actuarial Cost Method and Actuarial Assumptions	
Actuarial Assumptions and Cost Method	27-31
Experience Analysis	32
Section G Calculation of the Single Discount Rate	
Calculation of the Single Discount Rate	34
Projection of Contributions	35-36
Projection of Plan Net Position	37-38
Present Values of Projected Benefits	39-40
Section H Glossary of Terms	42-45

SECTION A



EXECUTIVE SUMMARY

Executive Summary as of December 31, 2021

	2021
Actuarial Valuation Date	January 1, 2021
Measurement Date of the Net Pension Liability	December 31, 2021
Employer's Fiscal Year Ending Date (Reporting Date)	December 31, 2021

Membership

Number of	
- Retirees and Beneficiaries	31
- Inactive, Nonretired Members	0
- Active Members	51
- Total	82
Covered Payroll	\$ 7,886,295

Net Pension Liability

Total Pension Liability	\$ 40,750,703
Plan Fiduciary Net Position	43,795,214
Net Pension Liability	\$ (3,044,511)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	107.47 %
Net Pension Liability as a Percentage of Covered Payroll	(38.61)%

Development of the Single Discount Rate

Single Discount Rate	6.80 %
Long-Term Expected Rate of Investment Return	6.80 %
Long-Term Municipal Bond Rate*	1.84 %
Last year ending December 31 in the 2021 to 2120 projection period for which projected benefit payments are fully funded	2120

Total Pension Expense \$ 554,331

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	\$ 943,748	\$ 428,135
Changes in assumptions	2,056,795	0
Net difference between projected and actual earnings on pension plan investments	618,525	5,110,693
Total	\$ 3,619,068	\$ 5,538,828

**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, 2021. 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 pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to 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, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. 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 34 of GASB Statement No. 68 states, "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 WRS subsequent to the measurement date of December 31, 2021.

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 liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

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 and inflows of resources related to pensions.

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans to include certain additional information. The list of disclosure items should include:

- a description of benefits provided by the plan;
- the type of employees and number of members covered by the pension plan;
- a description of the plan's funding policy, which includes member and employer contribution requirements;
- the pension plan's investment policies;
- the pension plan's fiduciary net position and the net pension liability;
- 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;
- significant assumptions and methods used to calculate the total pension liability;
- inputs to the discount rates; and
- certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- the composition of the pension plan's Board and the authority under which benefit terms may be amended;
- a description of how fair value is determined;
- information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets;
- annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 67 requires a 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
- a comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

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 6.80% on the actuarial value of assets), then the following outcomes are expected:

1. The employer normal cost as a percentage of pay is expected to remain level as a percentage of payroll.
2. The unfunded liability is expected to decrease to zero over the next few years.
3. The funded status of the plan is expected to be above 100% over the next few years.

This funding policy results in no expected crossover date and a GASB single discount rate of 6.80%. This funding policy results in the expectation that the plan's assets will be able to fully pay for promised benefits through at least 2120. 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.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. 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 January 1, 2021 and a measurement date of December 31, 2021.

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 (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 6.80%; the municipal bond rate is 1.84% (based on the daily 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 6.80%.

Effective Date and Transition

GASB Statement Nos. 67 and 68 are effective for fiscal years beginning after June 15, 2013, and June 15, 2014 respectively, earlier application is encouraged by the GASB.



SECTION B

FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Judicial Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Statement of Pension Expense under GASB Statement No. 68

Fiscal Year Ended December 31, 2021

A. Expense

1. Service Cost	\$	2,006,844
2. Interest on the Total Pension Liability		2,592,567
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(745,064)
5. Projected Earnings on Plan Investments (made negative for addition here)		(2,545,783)
6. Pension Plan Administrative Expense		35,804
7. Other Changes in Plan Fiduciary Net Position		1,347
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		604,510
9. Recognition of Outflow (Inflow) of Resources due to Assets		(1,395,894)
10. Total Pension Expense	\$	554,331 *

* In accordance with GASB 71, employers may need to illustrate contributions made after the measurement date.

Statement of Outflows and Inflows Arising from Current Reporting Period Fiscal Year Ended December 31, 2021

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ (147,370)
2. Assumption Changes (gains) or losses	\$ 1,743,269
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	6.3142
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	\$ (23,339)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes	\$ 276,087
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$ 252,748
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	\$ (124,031)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes	\$ 1,467,182
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$ 1,343,151

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (3,843,928)
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	\$ (768,786)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (3,075,142)



History of Deferred Outflows and Inflows of Resources by Source

Fiscal Year Ended December 31, 2021

Differences between expected and actual experience - Net (inflows)/outflows of resources

Recognition Period	7.9046	7.7907	7.3715	6.7663	6.7746	6.6532	6.8706	6.3142	Total	Deferred Net (Inflows)/Outflows at Measurement Date
	2014	2015	2016	2017	2018	2019	2020	2021		
Total	\$ -	\$ (372,108)	\$ (229,282)	\$ (620,955)	\$ 183,937	\$ (112,158)	\$ 1,225,009	\$ (147,370)		
2014	-	-	-	-	-	-	-	-	-	-
2015	-	(47,763)	-	-	-	-	-	-	(47,763)	(47,763)
2016	-	(47,763)	(31,104)	-	-	-	-	-	(78,867)	(78,867)
2017	-	(47,763)	(31,104)	(91,772)	-	-	-	-	(170,639)	(170,639)
2018	-	(47,763)	(31,104)	(91,772)	27,151	-	-	-	(143,488)	(143,488)
2019	-	(47,763)	(31,104)	(91,772)	27,151	(16,858)	-	-	(160,346)	(160,346)
2020	-	(47,763)	(31,104)	(91,772)	27,151	(16,858)	178,297	-	17,951	17,951
2021	-	(47,763)	(31,104)	(91,772)	27,151	(16,858)	178,297	(23,339)	(5,388)	(5,388)
2022	-	(37,767)	(31,104)	(91,772)	27,151	(16,858)	178,297	(23,339)	4,608	\$ 515,613
2023	-	-	(11,554)	(70,323)	27,151	(16,858)	178,297	(23,339)	83,374	
2024	-	-	-	-	21,031	(16,858)	178,297	(23,339)	159,131	
2025	-	-	-	-	-	(11,010)	178,297	(23,339)	143,948	
2025	-	-	-	-	-	-	155,227	(23,339)	131,888	
Thereafter	-	-	-	-	-	-	-	(7,336)	(7,336)	
	\$ -	\$ (372,108)	\$ (229,282)	\$ (620,955)	\$ 183,937	\$ (112,158)	\$ 1,225,009	\$ (147,370)	\$ (72,927)	

Assumption changes - Net (inflows)/outflows of resources

Recognition Period	7.9046	7.7907	7.3715	6.7663	6.7746	6.6532	6.8706	6.3142	Total	
	2014	2015	2016	2017	2018	2019	2020	2021		
Total	\$ -	\$ -	\$ -	\$ 2,258,668	\$ -	\$ -	\$ -	\$ 1,743,269		
2014	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	333,811	-	-	-	-	333,811	333,811
2018	-	-	-	333,811	-	-	-	-	333,811	333,811
2019	-	-	-	333,811	-	-	-	-	333,811	333,811
2020	-	-	-	333,811	-	-	-	-	333,811	333,811
2021	-	-	-	333,811	-	-	-	276,087	609,898	\$ 2,056,795
2022	-	-	-	333,811	-	-	-	276,087	609,898	
2023	-	-	-	255,802	-	-	-	276,087	531,889	
2024	-	-	-	-	-	-	-	276,087	276,087	
2025	-	-	-	-	-	-	-	276,087	276,087	
2025	-	-	-	-	-	-	-	276,087	276,087	
Thereafter	-	-	-	-	-	-	-	86,747	86,747	
	\$ -	\$ -	\$ -	\$ 2,258,668	\$ -	\$ -	\$ -	\$ 1,743,269	\$ 4,001,937	

Net Difference between projected and actual earnings on pension plan investments - Net (inflows)/outflows of resources

Recognition Period	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	Total	
	2014	2015	2016	2017	2018	2019	2020	2021		
Total	\$ 626,833	\$ 2,022,635	\$ 138,916	\$ (1,759,558)	\$ 3,092,625	\$ (3,228,107)	\$ (1,240,511)	\$ (3,843,928)		
2014	125,367	-	-	-	-	-	-	-	125,367	
2015	125,367	404,527	-	-	-	-	-	-	529,894	
2016	125,367	404,527	27,783	-	-	-	-	-	557,677	
2017	125,367	404,527	27,783	(351,912)	-	-	-	-	205,765	
2018	125,365	404,527	27,783	(351,912)	618,525	-	-	-	824,288	
2019	-	404,527	27,783	(351,912)	618,525	(645,621)	-	-	53,302	
2020	-	-	27,784	(351,912)	618,525	(645,621)	(248,102)	-	(599,326)	
2021	-	-	-	(351,910)	618,525	(645,621)	(248,102)	(768,786)	(1,395,894)	
2022	-	-	-	-	618,525	(645,621)	(248,102)	(768,786)	(1,043,584)	\$ (4,492,168)
2023	-	-	-	-	-	(645,623)	(248,102)	(768,786)	(1,662,511)	
2024	-	-	-	-	-	-	(248,103)	(768,786)	(1,016,889)	
2025	-	-	-	-	-	-	-	(768,784)	(768,784)	
2025	-	-	-	-	-	-	-	-	-	
Thereafter	-	-	-	-	-	-	-	-	-	
	\$ 626,833	\$ 2,022,635	\$ 138,916	\$ (1,759,558)	\$ 3,092,625	\$ (3,228,107)	\$ (1,240,511)	\$ (3,843,928)	\$ (4,191,095)	

Total net differences from all sources - Net (inflows)/outflows of resources

	2014	2015	2016	2017	2018	2019	2020	2021	Total	
Total	\$ 626,833	\$ 1,650,527	\$ (90,366)	\$ (121,845)	\$ 3,276,562	\$ (3,340,265)	\$ (15,502)	\$ (2,248,029)		
2014	125,367	-	-	-	-	-	-	-	125,367	
2015	125,367	356,764	-	-	-	-	-	-	482,131	
2016	125,367	356,764	(3,321)	-	-	-	-	-	478,810	
2017	125,367	356,764	(3,321)	(109,873)	-	-	-	-	368,937	
2018	125,365	356,764	(3,321)	(109,873)	645,676	-	-	-	1,014,611	
2019	-	356,764	(3,321)	(109,873)	645,676	(662,479)	-	-	226,767	
2020	-	(47,763)	(3,320)	(109,873)	645,676	(662,479)	(69,805)	-	(247,564)	
2021	-	(47,763)	(31,104)	(109,871)	645,676	(662,479)	(69,805)	(516,038)	(791,384)	
2022	-	(37,767)	(31,104)	242,039	645,676	(662,479)	(69,805)	(516,038)	(429,478)	\$ (1,919,760)
2023	-	-	(11,554)	185,479	27,151	(662,481)	(69,805)	(516,038)	(1,047,248)	
2024	-	-	-	-	21,031	(16,858)	(69,806)	(516,038)	(581,671)	
2025	-	-	-	-	-	(11,010)	178,297	(516,036)	(348,749)	
2025	-	-	-	-	-	-	252,748	-	407,975	
Thereafter	-	-	-	-	-	-	-	79,411	79,411	
	\$ 626,833	\$ 1,650,527	\$ (90,366)	\$ (121,845)	\$ 3,276,562	\$ (3,340,265)	\$ (15,502)	\$ (2,248,029)	\$ (262,085)	



Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Fiscal Year Ended December 31, 2021

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	\$ 815,346	\$ 210,836	\$ 604,510
2. Due to Assets	618,525	2,014,419	(1,395,894)
3. Total	\$ 1,433,871	\$ 2,225,255	\$ (791,384)

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	\$ 205,448	\$ 210,836	\$ (5,388)
2. Assumption Changes	609,898	0	609,898
3. Net Difference between projected and actual earnings on pension plan investments	618,525	2,014,419	(1,395,894)
4. Total	\$ 1,433,871	\$ 2,225,255	\$ (791,384)

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	\$ 943,748	\$ 428,135	\$ 515,613
2. Assumption Changes	2,056,795	0	2,056,795
3. Net Difference between projected and actual earnings on pension plan investments	618,525	5,110,693	(4,492,168)
4. Total	\$ 3,619,068	\$ 5,538,828	\$ (1,919,760)

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
2022	\$ (429,478)
2023	(1,047,248)
2024	(581,671)
2025	(348,749)
2026	407,975
Thereafter	79,411
Total	\$ (1,919,760)



Statement of Fiduciary Net Position as of December 31, 2021

	2021
Assets	
Cash and Deposits	\$ 2,851,456
Receivables	
Accounts Receivable - Sale of Investments	\$ 41,972
Accrued Interest and Other Dividends	100,875
Contributions	24
Accounts Receivable - Other	3,480,860
Total Receivables	\$ 3,623,731
Investments	
Fixed Income	\$ 7,951,126
Equities	20,918,867
Private Markets	4,533,191
Marketable Alternatives	7,577,576
Security Lending Collateral	2,297,964
Capital Assets, at Cost, Net of Accumulated Depreciation	4,604
Total Investments	\$ 43,283,328
Total Assets	\$ 49,758,515
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 5,907,205
Accrued Expenses	56,096
Accounts Payable - Other	0
Total Liabilities	\$ 5,963,301
Net Position Restricted for Pensions	\$ 43,795,214

Statement of Changes in Fiduciary Net Position for Year Ended December 31, 2021

	2021
Additions	
Contributions	
Employer	\$ 1,171,735
Employee	745,064
Other - Employer	23
Other - Employee	0
Total Contributions	\$ 1,916,822
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 5,915,602
Interest and Dividends	716,442
Less Investment Expense	(242,333)
Net Investment Income	\$ 6,389,711
Other	\$ 0
Total Additions	\$ 8,306,533
 Deductions	
Benefit Payments, including Refunds of Employee Contributions	\$ 1,943,586
Pension Plan Administrative Expense	35,804
Other	1,347
Total Deductions	\$ 1,980,737
Net Increase in Net Position	\$ 6,325,796
 Net Position Restricted for Pensions	
Beginning of Year	\$ 37,469,418
End of Year	\$ 43,795,214

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Judicial Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Schedule of Changes in Net Pension Liability and Related Ratios

Current Reporting Period

Fiscal Year Ended December 31, 2021

A. Total pension liability	
1. Service cost	\$ 2,006,844
2. Interest on the total pension liability	2,592,567
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the total pension liability	(147,370)
5. Changes of assumptions	1,743,269
6. Benefit payments, including refunds of employee contributions	(1,943,586)
7. Net change in total pension liability	<u>4,251,724</u>
8. Total pension liability – beginning	<u>36,498,979</u>
9. Total pension liability – ending	<u><u>\$ 40,750,703</u></u>
B. Plan fiduciary net position	
1. Contributions – employer	\$ 1,171,758
2. Contributions – employee	745,064
3. Net investment income	6,389,711
4. Benefit payments, including refunds of employee contributions	(1,943,586)
5. Pension plan administrative expense	(35,804)
6. Other	(1,347)
7. Net change in plan fiduciary net position	<u>6,325,796</u>
8. Plan fiduciary net position – beginning	<u>37,469,418</u>
9. Plan fiduciary net position – ending	<u><u>\$ 43,795,214</u></u>
C. Net pension liability	<u><u>\$ (3,044,511)</u></u>
D. Plan fiduciary net position as a percentage of the total pension liability	107.47 %
E. Covered-employee payroll	\$ 7,886,295
F. Net pension liability as a percentage of covered-employee payroll	(38.61)%

Schedules of Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Last 10 Fiscal Years (which may be built prospectively)

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability								
Service cost	\$ 2,006,844	\$ 1,713,172	\$ 1,529,896	\$ 1,509,964	\$ 1,470,668	\$ 1,263,270	\$ 1,263,278	\$ 1,186,595
Interest on the total pension liability	2,592,567	2,393,270	2,168,200	2,037,989	1,880,909	1,793,779	1,659,184	1,539,910
Changes of benefit terms	0	0	0	0	0	0	0	0
Difference between expected and actual experience	(147,370)	1,225,009	(112,158)	183,937	(620,955)	(229,282)	(372,108)	0
Changes of assumptions	1,743,269	0	0	0	2,258,668	0	0	0
Benefit payments, including refunds of employee contributions	(1,943,586)	(1,878,084)	(1,720,417)	(1,454,953)	(1,166,423)	(981,321)	(931,621)	(775,805)
Net change in total pension liability	4,251,724	3,453,367	1,865,521	2,276,937	3,822,867	1,846,446	1,618,733	1,950,700
Total pension liability - beginning	36,498,979	33,045,612	31,180,091	28,903,154	25,080,287	23,233,841	21,615,108	19,664,408
Total pension liability - ending (a)	\$ 40,750,703	\$ 36,498,979	\$ 33,045,612	\$ 31,180,091	\$ 28,903,154	\$ 25,080,287	\$ 23,233,841	\$ 21,615,108
Plan fiduciary net position								
Employer contributions	\$ 1,171,758	\$ 1,135,182	\$ 1,060,477	\$ 960,478	\$ 949,300	\$ 925,971	\$ 920,867	\$ 916,598
Employee contributions	745,064	721,821	1,028,339	610,818	603,602	588,791	585,545	582,831
Pension plan net investment income	6,389,711	3,612,442	5,224,148	(1,038,644)	3,549,526	1,679,033	(228,304)	1,038,134
Benefit payments, including refunds of employee contributions	(1,943,586)	(1,878,084)	(1,720,417)	(1,454,953)	(1,166,423)	(981,321)	(931,621)	(775,805)
Pension plan administrative expense	(35,804)	(32,231)	(27,764)	(28,405)	(25,315)	(22,090)	(17,833)	(17,117)
Other	(1,347)	(1,283)	(1,284)	(1,146)	(2,313)	(1,128)	(1,072)	(244)
Net change in plan fiduciary net position	6,325,796	3,557,847	5,563,499	(951,852)	3,908,377	2,189,256	327,582	1,744,397
Plan fiduciary net position - beginning	37,469,418	33,911,571	28,348,072	29,299,924	25,391,547	23,202,291	22,874,709	21,130,312
Plan fiduciary net position - ending (b)	\$ 43,795,214	\$ 37,469,418	\$ 33,911,571	\$ 28,348,072	\$ 29,299,924	\$ 25,391,547	\$ 23,202,291	\$ 22,874,709
Net pension liability - ending (a) - (b)	\$ (3,044,511)	\$ (970,439)	\$ (865,959)	\$ 2,832,019	\$ (396,770)	\$ (311,260)	\$ 31,550	\$ (1,259,601)
Plan fiduciary net position as a percentage of total pension liability	107.47 %	102.66 %	102.62 %	90.92 %	101.37 %	101.24 %	99.86 %	105.83 %
Covered-employee payroll	\$ 7,886,295	\$ 7,410,536	\$ 6,602,303	\$ 6,558,029	\$ 6,386,001	\$ 6,384,628	\$ 6,363,028	\$ 5,989,181
Projected Valuation Payroll	\$ 8,182,031	\$ 7,706,958	\$ 6,866,395	\$ 6,820,351	\$ 6,641,441	\$ 6,624,052	\$ 6,601,641	\$ 6,213,775
Net pension liability as a percentage of covered-employee payroll	(38.61)%	(13.10)%	(13.12)%	43.18 %	(6.21)%	(4.88)%	0.50 %	(21.03)%

Notes to Schedule:

For 2021, 2020, 2019, 2018, 2017, 2016 and 2015, "Other" changes to Plan Fiduciary Net Position includes other funding sources and depreciation expenses.

For 2014, "Other" changes also may include member redeposits and member service purchase contributions.



Schedules of Required Supplementary Information

Schedule of Net Pension Liability Multiyear

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	\$ 21,615,108	\$ 22,874,709	\$ (1,259,601)	105.83 %	\$ 5,989,181	(21.03)%
2015	23,233,841	23,202,291	31,550	99.86 %	6,363,028	0.50 %
2016	25,080,287	25,391,547	(311,260)	101.24 %	6,384,628	(4.88)%
2017	28,903,154	29,299,924	(396,770)	101.37 %	6,386,001	(6.21)%
2018	31,180,091	28,348,072	2,832,019	90.92 %	6,558,029	43.18 %
2019	33,045,612	33,911,571	(865,959)	102.62 %	6,602,303	(13.12)%
2020	36,498,979	37,469,418	(970,439)	102.66 %	7,410,536	(13.10)%
2021	40,750,703	43,795,214	(3,044,511)	107.47 %	7,886,295	(38.61)%

* Covered payroll is the amount in force as of the valuation date and likely differs from the actual payroll paid during the year.

Schedule of Contributions Multiyear Last 10 Fiscal Years

FY Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll*	Actual Contribution as a % of Covered Payroll
2014	\$ 596,723	\$ 916,598	\$ (319,875)	\$ 5,989,181	15.30 %
2015	589,177	920,867	(331,690)	6,363,028	14.47 %
2016	579,926	925,971	(346,045)	6,384,628	14.50 %
2017	543,468	949,263	(405,795)	6,386,001	14.86 %
2018	909,557	960,478	(50,921)	6,558,029	14.65 %
2019	986,724	1,060,477	(73,753)	6,602,303	16.06 %
2020	1,176,110	1,135,182	40,928	7,410,536	15.32 %
2021	1,197,434	1,171,758	25,676	7,886,295	14.86 %

* Covered payroll is the amount in force as of the valuation date and likely differs from the actual payroll paid during the year.



Notes to Schedule of Contributions

Valuation Date: January 1, 2021
Notes Actuarially determined contribution rates are calculated as of July 1 each year for implementation the following fiscal year.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	13 years
Asset Valuation Method	5-Year smoothed market
Inflation	2.25%
Salary Increases	4.75% to 8.75% including inflation
Payroll Growth Rate	4.00%
Cost-of-Living Increase	0.00%
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2018 valuation pursuant to an experience study of the period 2012 - 2016.
Post-Retirement Mortality	RP-2014 Healthy Annuitant Mortality Table, fully generational, projected with Scale MP-2017 Males: No set back with a multiplier of 100% Females: No set back with a multiplier of 88%
Pre-Retirement Mortality	RP-2014 Employee Mortality Table, fully generational, projected with Scale MP-2017 Males: No set back with a multiplier of 100% Females: No set back with a multiplier of 100%

Other Information:

Notes There were no benefit changes during the year.
The employer is currently contributing at the rate of 14.50% of salary.
Employees are currently contributing at the rate of 9.22% of salary.
The roll-forward methodology employed for purposes of the GASB disclosures is based on generally accepted actuarial methods.

Schedule of Investment Returns Multiyear Last 10 Fiscal Years

<u>FY Ending December 31,</u>	<u>Annual Return¹</u>
2014	4.70 %
2015	(0.26)%
2016	7.60 %
2017	14.20 %
2018	(3.52)%
2019	18.72 %
2020	11.03 %
2021	17.19 %

¹ Annual money-weighted rate of return, net of investment expenses.

SECTION D

NOTES TO FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Judicial Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Single Discount Rate

A Single Discount Rate of 6.80% was used to measure the total pension liability. This Single Discount Rate was based on the expected rate of return on pension plan investments of 6.80%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the statutory contribution rates. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of Results

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 6.80%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

1% Decrease	Current Single Discount Rate Assumption	1% Increase
5.80%	6.80%	7.80%
\$ 220,851	\$ (3,044,511)	\$ (6,588,037)

Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	31
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	0
Active Plan Members	<u>51</u>
Total Plan Members	82

SECTION E

SUMMARY OF BENEFITS

Summary of Benefits

Covered Members	Any justice of the supreme court, district judge appointed or circuit court judge appointed to any of those offices on or after July 1, 1998, or who elects to participate in the judicial retirement program under this act in accordance with W.S. 9-3-713.
Final Average Salary	Employee's average annual salary for the highest paid three continuous years of service.
Form of Payment	Monthly benefit for life. Upon death, 50% of the benefit continues to be paid to the beneficiary.
Service Retirement	
Eligibility	Age 70 with continuous service from appointment, age 65 with four or more years of service, or age 60 with 20 or more years of service.
Monthly Benefit	Highest Average Salary times the sum of the following: <ul style="list-style-type: none">• 4% for each of the first five years of service,• 3% for each year from and including the sixth year through the fifteenth year of service,• 2% for each year from and including the sixteenth year through the twentieth year of service,• 1% for each year thereafter.
Vesting	Any employee who has left employment with four or more years of service, and who has not withdrawn accumulated contributions, is eligible to receive the above benefit or can elect to receive a lump-sum refund of contributions with interest. An employee who terminates with less than four years of service and has not served continuously from the date of appointment to the age of 70 is only eligible for the lump-sum benefit.
Early Retirement	A member who is at least age 55 with four or more years of service may retire with the benefits described above reduced five percent for each year of retirement prior to age 65.
Disability Retirement	
Eligibility	Retirement by reason of permanent disability after completion of at least 10 years of service.
Monthly Benefit	Service retirement benefit determined as of the disability retirement date.

Pre-Retirement Death

Eligibility No age or service requirements.

Benefit A lump sum equal to two times the employee contributions with interest. If the employee is vested, the beneficiary can elect, in lieu of this lump sum, to receive a monthly benefit equal to the actuarial equivalent of the retirement benefit that would be due the employee as if the member had terminated on the date of death.

Contributions

Employee 9.22% of salary.

Employer 14.50% of salary.

Interest 3.00% annually.

Cost-of-Living Improvements

W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2021 actuarial valuation for GASB reporting purposes and are based on assumptions adopted by the Board at the November 17, 2021 and the February 17, 2022 meetings.

1. Valuation Date

The valuation date for any given year is January 1st, the first day of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

2. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal (EAN) actuarial cost method, amortized as a level percent of payroll. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) the rate that will amortize the unfunded actuarial accrued liability (UAAL).

- a. The valuation is prepared on the projected benefit basis, under which the present value, at the investment return rate assumed to be earned in the future (currently 6.80%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 15 years from the valuation date. The Board's policy consists of amortizing the unfunded liability as of January 1, 2018, over a closed 15 year period with each subsequent amortization base created as a result of year to year experience changes over individual 15 year closed periods. The current year amortization base is determined by taking the current unfunded liability less the outstanding amounts of prior year bases.

3. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income, with interest, dividends, and other income recognized immediately. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses. An adjustment is made if the actuarial value is not within 20% of the Market Value. For any year following a year in which the 20% of market value adjustment was applied, the actuarial value is determined as if the adjustment was not applied in the previous year.

4. Economic Assumptions

a. Investment return

6.80% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.55% net real rate of return. This rate represents the assumed return, net of investment expenses.

b. Salary increase rate

3.75% per annum

c. Payroll growth rate

In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.75% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

d. Cost-of-Living adjustment

No cost-of-living adjustment is assumed since the policy for providing the benefit requires Board approval to make the recommendation to the Joint Appropriations Committee and the funded level of the plan shows a cost-of-living requirement would not be permitted.

5. Demographic Assumptions

a. Mortality

Healthy Pre-Retirement Mortality:

Pub-2010 General Active Mortality Table, amount weighted, fully generational, projected with the MP-2020 Ultimate Scale

Males: No set back with a multiplier of 100%

Females: No set back with a multiplier of 100%

Healthy Post-Retirement Mortality:

Pub-2010 General Healthy Annuitant Mortality Table, amount weighted, fully generational, projected with the MP-2020 Ultimate Scale

Males: No set back with a multiplier of 100%

Females: No set back with a multiplier of 103%

Disabled Mortality

Pub-2010 General Disabled Retiree Mortality Table, amount weighted, fully generational, projected with the MP-2020 Ultimate Scale

Males: No set back with a multiplier of 100%

Females: No set back with a multiplier of 100%

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2021 using the MP-2020 Ultimate Scale					
	Male	Female	Male	Female	Male	Female
20	0.03%	0.01%	0.03%	0.01%	0.35%	0.20%
25	0.02%	0.01%	0.02%	0.01%	0.24%	0.14%
30	0.03%	0.01%	0.03%	0.01%	0.30%	0.22%
35	0.04%	0.02%	0.04%	0.02%	0.39%	0.35%
40	0.06%	0.03%	0.06%	0.03%	0.56%	0.54%
45	0.08%	0.05%	0.09%	0.06%	0.87%	0.85%
50	0.13%	0.07%	0.26%	0.20%	1.38%	1.28%
55	0.19%	0.11%	0.37%	0.25%	1.82%	1.50%
60	0.27%	0.16%	0.53%	0.34%	2.16%	1.68%
65	0.40%	0.26%	0.79%	0.55%	2.63%	1.95%
70	0.61%	0.43%	1.33%	0.95%	3.40%	2.49%
75			2.35%	1.70%	4.56%	3.52%
80			4.23%	3.06%	6.51%	5.32%
85			7.80%	5.81%	9.82%	8.48%
90			13.69%	11.04%	15.16%	12.75%
95			21.90%	18.55%	22.60%	18.47%
100			31.55%	28.06%	31.55%	27.24%

b. Disability

Age	Disability	
	Male	Female
20	0.01%	0.01%
25	0.01%	0.01%
30	0.01%	0.01%
35	0.01%	0.01%
40	0.01%	0.01%
45	0.01%	0.01%
50	0.03%	0.03%
55	0.05%	0.05%
60	0.07%	0.07%

c. Withdrawal

No terminations are assumed to occur during the year.

d. Retirement Rates

Age	Retirement	
	Unreduced	Reduced
50-59	2.00%	2.00%
60	25.00%	15.00%
61-64	15.00%	10.00%
65	100.00%	15.00%
66		15.00%
67		100.00%

6. Other Assumptions

- a. Percent married: 85.00% of employees are assumed to be married. (No beneficiaries other than the spouse assumed.)
- b. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
- c. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.
- d. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit. It is assumed that 25% of active members who terminate with a deferred vested benefit will elect to have their contributions refunded.
- e. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available, which for this plan is age 65.
- f. No benefit amount data is available for members entitled to deferred benefits. The benefit is estimated using the final average compensation and service provided by WRS.
- g. There will be no recoveries once disabled. We assume all members are totally disabled.
- h. No surviving spouse will remarry.
- i. Administrative expenses: Assumed to be the average of the prior two years, with each year projected at 2.50% to the valuation date.
- j. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pay represents amount paid to members during the year ended on the valuation date.
- k. Decrement timing: Decrements of all types are assumed to occur mid-year.
- l. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
- m. Decrement relativity: Decrement rates are converted to probabilities in order to account for multiple decrements.
- n. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in the report, and the actual payroll payable at the time contributions are made.
- o. Benefit Service: All members are assumed to accrue one year of service each year. Exact fractional service is used to determine the amount of benefit payable.

Experience Analysis

An experience study was conducted on behalf of all WRS' plans covering the five year period ending December 31, 2020. That study provided a detailed analysis concerning the development of the long term inflation rate, real rate of return and discount rate. The study also analyzed each major actuarial assumption (e.g. mortality, salary increases, retirement, termination and disability) and proposed assumptions consistent with the findings. For further information on the experience study and related assumption recommendation, the reader is directed to request the December 31, 2020 Wyoming Retirement System Experience Study.

SECTION G

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 municipal bond rate is required, as described in the following paragraph.

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

For the purpose of this valuation, the expected rate of return on pension plan investments is 6.80%; the municipal bond rate is 1.84%; and the resulting Single Discount Rate is 6.80%.

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).

The **Projection of Plan 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.

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 Ending December 31 for 2021 to 2070

Year	Payroll		Total Employee Payroll	Contributions from Current Employees	Employer	Employer Contributions	Total Contributions
	for Current Employees	for Future Employees			Contributions for Current Employees	Related to Payroll of Future Employees	
	(a)	(b)=max(0,(c)-(a))	(c)	(d)	(e)=(a)*ER%	(f) = (b)*netER%	(g)=(d)+(e)+(f)
2021	\$ 7,978,186	\$ 203,845	\$ 8,182,031	\$ 745,064	\$ 1,171,735	\$ -	\$ 1,916,799
2022	7,614,247	874,610	8,488,857	702,034	1,104,066	-	1,806,100
2023	7,247,135	1,560,054	8,807,189	668,186	1,050,835	-	1,719,021
2024	6,944,076	2,193,383	9,137,459	640,244	1,006,891	-	1,647,135
2025	6,413,525	3,066,589	9,480,114	591,327	929,961	-	1,521,288
2026	6,046,549	3,789,069	9,835,618	557,492	876,750	-	1,434,242
2027	5,829,641	4,374,813	10,204,454	537,493	845,298	-	1,382,791
2028	5,604,647	4,982,474	10,587,121	516,748	812,674	-	1,329,422
2029	5,324,905	5,659,233	10,984,138	490,956	772,111	-	1,263,067
2030	4,978,761	6,417,282	11,396,043	459,042	721,920	-	1,180,962
2031	4,801,042	7,022,353	11,823,395	442,656	696,151	-	1,138,807
2032	4,723,685	7,543,087	12,266,772	435,524	684,934	-	1,120,458
2033	4,554,513	8,172,263	12,726,776	419,926	660,404	-	1,080,330
2034	4,347,792	8,856,238	13,204,030	400,866	630,430	-	1,031,296
2035	4,054,754	9,644,427	13,699,181	373,848	587,939	-	961,787
2036	3,794,541	10,418,359	14,212,900	349,857	550,208	11,755	911,820
2037	3,625,490	11,120,394	14,745,884	334,270	525,696	27,399	887,365
2038	3,351,087	11,947,768	15,298,855	308,970	485,908	42,357	837,235
2039	2,864,141	13,008,421	15,872,562	264,074	415,300	56,751	736,125
2040	2,434,928	14,032,855	16,467,783	224,500	353,065	66,188	643,753
2041	2,169,743	14,915,582	17,085,325	200,050	314,613	80,959	595,622
2042	1,823,360	15,902,665	17,726,025	168,114	264,387	95,230	527,731
2043	1,538,989	16,851,762	18,390,751	141,895	223,153	107,048	472,096
2044	1,189,278	17,891,126	19,080,404	109,651	172,445	122,661	404,757
2045	882,652	18,913,267	19,795,919	81,380	127,985	130,562	339,927
2046	674,563	19,863,703	20,538,266	62,195	97,812	143,836	303,843
2047	407,538	20,900,913	21,308,451	37,575	59,093	152,857	249,525
2048	248,146	21,859,372	22,107,518	22,879	35,981	163,220	222,080
2049	163,676	22,772,874	22,936,550	15,091	23,733	172,570	211,394
2050	143,706	23,652,965	23,796,671	13,250	20,837	182,854	216,941
2051	69,370	24,619,676	24,689,046	6,396	10,059	193,919	210,374
2052	-	25,614,885	25,614,885	-	-	204,129	204,129
2053	-	26,575,443	26,575,443	-	-	216,257	216,257
2054	-	27,572,022	27,572,022	-	-	228,717	228,717
2055	-	28,605,973	28,605,973	-	-	242,859	242,859
2056	-	29,678,697	29,678,697	-	-	258,942	258,942
2057	-	30,791,648	30,791,648	-	-	274,078	274,078
2058	-	31,946,335	31,946,335	-	-	288,698	288,698
2059	-	33,144,323	33,144,323	-	-	304,300	304,300
2060	-	34,387,235	34,387,235	-	-	320,180	320,180
2061	-	35,676,756	35,676,756	-	-	335,069	335,069
2062	-	37,014,634	37,014,634	-	-	349,169	349,169
2063	-	38,402,683	38,402,683	-	-	362,422	362,422
2064	-	39,842,784	39,842,784	-	-	376,270	376,270
2065	-	41,336,888	41,336,888	-	-	389,412	389,412
2066	-	42,887,021	42,887,021	-	-	401,935	401,935
2067	-	44,495,284	44,495,284	-	-	414,145	414,145
2068	-	46,163,857	46,163,857	-	-	426,055	426,055
2069	-	47,895,002	47,895,002	-	-	439,742	439,742
2070	-	49,691,065	49,691,065	-	-	453,033	453,033



Single Discount Rate Development Projection of Contributions Ending December 31 for 2071 to 2120 (concluded)

Year	Payroll for Current	Payroll for Future	Total Employee	Contributions from	Employer	Employer Contributions	Total Contributions
	Employees	Employees	Payroll	Current Employees	Contributions for Current Employees	Related to Payroll of Future Employees	
	(a)	(b)=max(0,(c)-(a))	(c)	(d)	(e)=(a)*ER%	(f) = (b)*netER%	(g)=(d)+(e)+(f)
2071	\$ -	\$ 51,554,480	\$ 51,554,480	\$ -	\$ -	\$ 466,710	\$ 466,710
2072	-	53,487,773	53,487,773	-	-	481,312	481,312
2073	-	55,493,564	55,493,564	-	-	497,708	497,708
2074	-	57,574,573	57,574,573	-	-	515,386	515,386
2075	-	59,733,619	59,733,619	-	-	533,440	533,440
2076	-	61,973,630	61,973,630	-	-	553,289	553,289
2077	-	64,297,641	64,297,641	-	-	574,759	574,759
2078	-	66,708,803	66,708,803	-	-	597,869	597,869
2079	-	69,210,383	69,210,383	-	-	621,892	621,892
2080	-	71,805,772	71,805,772	-	-	647,052	647,052
2081	-	74,498,488	74,498,488	-	-	673,324	673,324
2082	-	77,292,181	77,292,181	-	-	700,852	700,852
2083	-	80,190,638	80,190,638	-	-	728,838	728,838
2084	-	83,197,787	83,197,787	-	-	757,825	757,825
2085	-	86,317,704	86,317,704	-	-	787,654	787,654
2086	-	89,554,618	89,554,618	-	-	818,060	818,060
2087	-	92,912,916	92,912,916	-	-	849,125	849,125
2088	-	96,397,150	96,397,150	-	-	880,954	880,954
2089	-	100,012,043	100,012,043	-	-	913,685	913,685
2090	-	103,762,495	103,762,495	-	-	947,177	947,177
2091	-	107,653,589	107,653,589	-	-	981,603	981,603
2092	-	111,690,599	111,690,599	-	-	1,017,346	1,017,346
2093	-	115,878,996	115,878,996	-	-	1,054,278	1,054,278
2094	-	120,224,458	120,224,458	-	-	1,092,538	1,092,538
2095	-	124,732,875	124,732,875	-	-	1,132,222	1,132,222
2096	-	129,410,358	129,410,358	-	-	1,173,631	1,173,631
2097	-	134,263,246	134,263,246	-	-	1,216,912	1,216,912
2098	-	139,298,118	139,298,118	-	-	1,261,952	1,261,952
2099	-	144,521,797	144,521,797	-	-	1,308,907	1,308,907
2100	-	149,941,364	149,941,364	-	-	1,357,894	1,357,894
2101	-	155,564,165	155,564,165	-	-	1,409,089	1,409,089
2102	-	161,397,821	161,397,821	-	-	1,462,395	1,462,395
2103	-	167,450,239	167,450,239	-	-	1,517,782	1,517,782
2104	-	173,729,623	173,729,623	-	-	1,575,378	1,575,378
2105	-	180,244,484	180,244,484	-	-	1,635,302	1,635,302
2106	-	187,003,652	187,003,652	-	-	1,697,450	1,697,450
2107	-	194,016,289	194,016,289	-	-	1,761,827	1,761,827
2108	-	201,291,900	201,291,900	-	-	1,828,545	1,828,545
2109	-	208,840,346	208,840,346	-	-	1,897,660	1,897,660
2110	-	216,671,859	216,671,859	-	-	1,969,228	1,969,228
2111	-	224,797,054	224,797,054	-	-	2,043,253	2,043,253
2112	-	233,226,944	233,226,944	-	-	2,119,921	2,119,921
2113	-	241,972,954	241,972,954	-	-	2,199,314	2,199,314
2114	-	251,046,940	251,046,940	-	-	2,281,541	2,281,541
2115	-	260,461,200	260,461,200	-	-	2,366,722	2,366,722
2116	-	270,228,495	270,228,495	-	-	2,455,031	2,455,031
2117	-	280,362,064	280,362,064	-	-	2,546,626	2,546,626
2118	-	290,875,641	290,875,641	-	-	2,641,624	2,641,624
2119	-	301,783,478	301,783,478	-	-	2,740,194	2,740,194
2120	-	313,100,358	313,100,358	-	-	2,842,542	2,842,542



Single Discount Rate Development Projection of Plan Net Position Ending December 31 for 2021 to 2070

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.800%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2021	\$ 37,469,418	\$ 1,916,822	\$ 1,943,586	\$ 37,151	\$ 6,389,711	\$ 43,795,214
2022	43,795,214	1,806,100	2,313,891	32,258	2,960,015	46,215,180
2023	46,215,180	1,719,021	2,561,221	33,467	3,113,349	48,452,862
2024	48,452,862	1,647,135	2,794,295	34,722	3,255,271	50,526,252
2025	50,526,252	1,521,288	3,110,869	36,024	3,381,424	52,282,071
2026	52,282,071	1,434,242	3,313,443	37,375	3,491,089	53,856,583
2027	53,856,583	1,382,791	3,431,137	38,777	3,592,452	55,361,912
2028	55,361,912	1,329,422	3,551,169	40,231	3,688,968	56,788,902
2029	56,788,902	1,263,067	3,711,135	41,740	3,778,384	58,077,479
2030	58,077,479	1,180,962	3,882,257	43,305	3,857,487	59,190,365
2031	59,190,365	1,138,807	3,958,303	44,929	3,929,156	60,255,096
2032	60,255,096	1,120,458	3,995,485	46,614	3,999,644	61,333,100
2033	61,333,100	1,080,330	4,074,949	48,362	4,068,891	62,359,010
2034	62,359,010	1,031,296	4,168,219	50,175	4,133,833	63,305,747
2035	63,305,747	961,787	4,307,041	52,057	4,191,182	64,099,618
2036	64,099,618	911,820	4,415,335	54,009	4,239,807	64,781,901
2037	64,781,901	887,365	4,464,462	56,034	4,283,674	65,432,444
2038	65,432,444	837,235	4,571,091	58,136	4,322,599	65,963,051
2039	65,963,051	736,125	4,790,560	60,316	4,347,887	66,196,186
2040	66,196,186	643,753	4,947,548	62,578	4,355,325	66,185,139
2041	66,185,139	595,622	5,000,335	64,924	4,351,121	66,066,624
2042	66,066,624	527,731	5,091,881	67,359	4,337,649	65,772,764
2043	65,772,764	472,096	5,126,732	69,885	4,314,556	65,362,799
2044	65,362,799	404,757	5,193,767	72,506	4,282,097	64,783,380
2045	64,783,380	339,927	5,213,113	75,224	4,239,791	64,074,762
2046	64,074,762	303,843	5,168,533	78,045	4,191,795	63,323,821
2047	63,323,821	249,525	5,147,510	80,972	4,139,519	62,484,384
2048	62,484,384	222,080	5,051,164	84,009	4,084,640	61,655,931
2049	61,655,931	211,394	4,901,756	87,159	4,032,839	60,911,249
2050	60,911,249	216,941	4,710,812	90,427	3,988,662	60,315,612
2051	60,315,612	210,374	4,557,978	93,818	3,952,937	59,827,127
2052	59,827,127	204,129	4,398,838	97,337	3,924,715	59,459,796
2053	59,459,796	216,257	4,195,314	100,987	3,906,826	59,286,578
2054	59,286,578	228,717	3,994,493	104,774	3,902,053	59,318,081
2055	59,318,081	242,859	3,796,449	108,703	3,911,159	59,566,947
2056	59,566,947	258,942	3,600,991	112,779	3,935,020	60,047,139
2057	60,047,139	274,078	3,407,803	117,008	3,974,498	60,770,904
2058	60,770,904	288,698	3,216,339	121,396	4,030,459	61,752,327
2059	61,752,327	304,300	3,026,046	125,948	4,103,929	63,008,561
2060	63,008,561	320,180	2,836,505	130,671	4,196,064	64,557,630
2061	64,557,630	335,069	2,647,324	135,572	4,308,061	66,417,865
2062	66,417,865	349,169	2,458,356	140,656	4,441,178	68,609,200
2063	68,609,200	362,422	2,269,714	145,930	4,596,764	71,152,742
2064	71,152,742	376,270	2,081,710	151,403	4,776,292	74,072,191
2065	74,072,191	389,412	1,895,119	157,080	4,981,304	77,390,708
2066	77,390,708	401,935	1,711,142	162,971	5,213,337	81,131,867
2067	81,131,867	414,145	1,531,124	169,082	5,473,960	85,319,766
2068	85,319,766	426,055	1,356,664	175,423	5,764,757	89,978,491
2069	89,978,491	439,742	1,189,527	182,001	6,087,378	95,134,083
2070	95,134,083	453,033	1,031,437	188,826	6,443,461	100,810,314



Single Discount Rate Development

Projection of Plan Net Position

Ending December 31 for 2071 to 2120 (concluded)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.800%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2071	\$ 100,810,314	\$ 466,710	\$ 884,029	\$ 195,907	\$ 6,834,595	\$ 107,031,682
2072	107,031,682	481,312	748,612	203,254	7,262,419	113,823,546
2073	113,823,546	497,708	626,092	210,876	7,728,656	121,212,943
2074	121,212,943	515,386	516,940	218,783	8,235,112	129,227,717
2075	129,227,717	533,440	421,181	226,988	8,783,648	137,896,636
2076	137,896,636	553,289	338,447	235,500	9,376,280	147,252,259
2077	147,252,259	574,759	268,077	244,331	10,015,239	157,329,849
2078	157,329,849	597,869	209,248	253,493	10,702,949	168,167,925
2079	168,167,925	621,892	160,922	262,999	11,442,039	179,807,936
2080	179,807,936	647,052	121,884	272,862	12,235,377	192,295,619
2081	192,295,619	673,324	90,904	283,094	13,086,112	205,681,057
2082	205,681,057	700,852	66,748	293,710	13,997,695	220,019,146
2083	220,019,146	728,838	48,226	304,724	14,973,872	235,368,906
2084	235,368,906	757,825	34,263	316,152	16,018,710	251,795,025
2085	251,795,025	787,654	23,915	328,007	17,136,633	269,367,390
2086	269,367,390	818,060	16,380	340,308	18,332,411	288,161,173
2087	288,161,173	849,125	10,997	353,069	19,611,181	308,257,413
2088	308,257,413	880,954	7,225	366,309	20,978,473	329,743,305
2089	329,743,305	913,685	4,640	380,046	22,440,235	352,712,539
2090	352,712,539	947,177	2,908	394,297	24,002,844	377,265,355
2091	377,265,355	981,603	1,776	409,084	25,673,130	403,509,229
2092	403,509,229	1,017,346	1,055	424,424	27,458,420	431,559,516
2093	431,559,516	1,054,278	609	440,340	29,366,557	461,539,403
2094	461,539,403	1,092,538	341	456,853	31,405,926	493,580,673
2095	493,580,673	1,132,222	185	473,985	33,585,492	527,824,218
2096	527,824,218	1,173,631	97	491,759	35,914,846	564,420,839
2097	564,420,839	1,216,912	49	510,200	38,404,248	603,531,750
2098	603,531,750	1,261,952	24	529,333	41,064,658	645,329,002
2099	645,329,002	1,308,907	12	549,183	43,907,778	689,996,492
2100	689,996,492	1,357,894	6	569,777	46,946,117	737,730,719
2101	737,730,719	1,409,089	3	591,144	50,193,042	788,741,703
2102	788,741,703	1,462,395	1	613,312	53,662,830	843,253,615
2103	843,253,615	1,517,782	1	636,311	57,370,723	901,505,808
2104	901,505,808	1,575,378	0	660,173	61,333,000	963,754,013
2105	963,754,013	1,635,302	-	684,929	65,567,054	1,030,271,440
2106	1,030,271,440	1,697,450	-	710,614	70,091,459	1,101,349,735
2107	1,101,349,735	1,761,827	-	737,262	74,926,044	1,177,300,344
2108	1,177,300,344	1,828,545	-	764,909	80,091,992	1,258,455,972
2109	1,258,455,972	1,897,660	-	793,593	85,611,927	1,345,171,966
2110	1,345,171,966	1,969,228	-	823,353	91,510,013	1,437,827,854
2111	1,437,827,854	2,043,253	-	854,229	97,812,056	1,536,828,934
2112	1,536,828,934	2,119,921	-	886,262	104,545,622	1,642,608,215
2113	1,642,608,215	2,199,314	-	919,497	111,740,157	1,755,628,189
2114	1,755,628,189	2,281,541	-	953,978	119,427,112	1,876,382,864
2115	1,876,382,864	2,366,722	-	989,753	127,640,082	2,005,399,915
2116	2,005,399,915	2,455,031	-	1,026,868	136,414,953	2,143,243,031
2117	2,143,243,031	2,546,626	-	1,065,376	145,790,060	2,290,514,341
2118	2,290,514,341	2,641,624	-	1,105,327	155,806,350	2,447,856,988
2119	2,447,856,988	2,740,194	-	1,146,777	166,507,560	2,615,957,966
2120	2,615,957,966	2,842,542	-	1,189,781	177,940,411	2,795,551,138



Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31 for 2021 to 2070

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected 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 All 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	\$ 37,469,418	\$ 1,943,586	\$ 1,943,586	\$ 0	\$ 1,880,694	\$ 0	\$ 1,880,694
2022	43,795,214	2,313,891	2,313,891	0	2,096,457	0	2,096,457
2023	46,215,180	2,561,221	2,561,221	0	2,172,795	0	2,172,795
2024	48,452,862	2,794,295	2,794,295	0	2,219,590	0	2,219,590
2025	50,526,252	3,110,869	3,110,869	0	2,313,721	0	2,313,721
2026	52,282,071	3,313,443	3,313,443	0	2,307,478	0	2,307,478
2027	53,856,583	3,431,137	3,431,137	0	2,237,304	0	2,237,304
2028	55,361,912	3,551,169	3,551,169	0	2,168,138	0	2,168,138
2029	56,788,902	3,711,135	3,711,135	0	2,121,539	0	2,121,539
2030	58,077,479	3,882,257	3,882,257	0	2,078,057	0	2,078,057
2031	59,190,365	3,958,303	3,958,303	0	1,983,859	0	1,983,859
2032	60,255,096	3,995,485	3,995,485	0	1,874,995	0	1,874,995
2033	61,333,100	4,074,949	4,074,949	0	1,790,529	0	1,790,529
2034	62,359,010	4,168,219	4,168,219	0	1,714,899	0	1,714,899
2035	63,305,747	4,307,041	4,307,041	0	1,659,189	0	1,659,189
2036	64,099,618	4,415,335	4,415,335	0	1,592,609	0	1,592,609
2037	64,781,901	4,464,462	4,464,462	0	1,507,799	0	1,507,799
2038	65,432,444	4,571,091	4,571,091	0	1,445,516	0	1,445,516
2039	65,963,051	4,790,560	4,790,560	0	1,418,463	0	1,418,463
2040	66,196,186	4,947,548	4,947,548	0	1,371,673	0	1,371,673
2041	66,185,139	5,000,335	5,000,335	0	1,298,041	0	1,298,041
2042	66,066,624	5,091,881	5,091,881	0	1,237,646	0	1,237,646
2043	65,772,764	5,126,732	5,126,732	0	1,166,776	0	1,166,776
2044	65,362,799	5,193,767	5,193,767	0	1,106,772	0	1,106,772
2045	64,783,380	5,213,113	5,213,113	0	1,040,163	0	1,040,163
2046	64,074,762	5,168,533	5,168,533	0	965,607	0	965,607
2047	63,323,821	5,147,510	5,147,510	0	900,449	0	900,449
2048	62,484,384	5,051,164	5,051,164	0	827,336	0	827,336
2049	61,655,931	4,901,756	4,901,756	0	751,746	0	751,746
2050	60,911,249	4,710,812	4,710,812	0	676,463	0	676,463
2051	60,315,612	4,557,978	4,557,978	0	612,843	0	612,843
2052	59,827,127	4,398,838	4,398,838	0	553,788	0	553,788
2053	59,459,796	4,195,314	4,195,314	0	494,537	0	494,537
2054	59,286,578	3,994,493	3,994,493	0	440,884	0	440,884
2055	59,318,081	3,796,449	3,796,449	0	392,346	0	392,346
2056	59,566,947	3,600,991	3,600,991	0	348,452	0	348,452
2057	60,047,139	3,407,803	3,407,803	0	308,762	0	308,762
2058	60,770,904	3,216,339	3,216,339	0	272,860	0	272,860
2059	61,752,327	3,026,046	3,026,046	0	240,371	0	240,371
2060	63,008,561	2,836,505	2,836,505	0	210,969	0	210,969
2061	64,557,630	2,647,324	2,647,324	0	184,362	0	184,362
2062	66,417,865	2,458,356	2,458,356	0	160,302	0	160,302
2063	68,609,200	2,269,714	2,269,714	0	138,578	0	138,578
2064	71,152,742	2,081,710	2,081,710	0	119,007	0	119,007
2065	74,072,191	1,895,119	1,895,119	0	101,442	0	101,442
2066	77,390,708	1,711,142	1,711,142	0	85,762	0	85,762
2067	81,131,867	1,531,124	1,531,124	0	71,853	0	71,853
2068	85,319,766	1,356,664	1,356,664	0	59,613	0	59,613
2069	89,978,491	1,189,527	1,189,527	0	48,941	0	48,941
2070	95,134,083	1,031,437	1,031,437	0	39,734	0	39,734



Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31 for 2071 to 2120 (concluded)

Year	Projected Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected 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 All 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})
2071	\$ 100,810,314	\$ 884,029	\$ 884,029	\$ 0	\$ 31,887	\$ 0	\$ 31,887
2072	107,031,682	748,612	748,612	0	25,284	0	25,284
2073	113,823,546	626,092	626,092	0	19,799	0	19,799
2074	121,212,943	516,940	516,940	0	15,307	0	15,307
2075	129,227,717	421,181	421,181	0	11,677	0	11,677
2076	137,896,636	338,447	338,447	0	8,786	0	8,786
2077	147,252,259	268,077	268,077	0	6,516	0	6,516
2078	157,329,849	209,248	209,248	0	4,762	0	4,762
2079	168,167,925	160,922	160,922	0	3,429	0	3,429
2080	179,807,936	121,884	121,884	0	2,432	0	2,432
2081	192,295,619	90,904	90,904	0	1,698	0	1,698
2082	205,681,057	66,748	66,748	0	1,168	0	1,168
2083	220,019,146	48,226	48,226	0	790	0	790
2084	235,368,906	34,263	34,263	0	525	0	525
2085	251,795,025	23,915	23,915	0	343	0	343
2086	269,367,390	16,380	16,380	0	220	0	220
2087	288,161,173	10,997	10,997	0	138	0	138
2088	308,257,413	7,225	7,225	0	85	0	85
2089	329,743,305	4,640	4,640	0	51	0	51
2090	352,712,539	2,908	2,908	0	30	0	30
2091	377,265,355	1,776	1,776	0	17	0	17
2092	403,509,229	1,055	1,055	0	10	0	10
2093	431,559,516	609	609	0	5	0	5
2094	461,539,403	341	341	0	3	0	3
2095	493,580,673	185	185	0	1	0	1
2096	527,824,218	97	97	0	1	0	1
2097	564,420,839	49	49	0	0	0	0
2098	603,531,750	24	24	0	0	0	0
2099	645,329,002	12	12	0	0	0	0
2100	689,996,492	6	6	0	0	0	0
2101	737,730,719	3	3	0	0	0	0
2102	788,741,703	1	1	0	0	0	0
2103	843,253,615	1	1	0	0	0	0
2104	901,505,808	0	0	0	0	0	0
2105	963,754,013	0	0	0	0	0	0
2106	1,030,271,440	0	0	0	0	0	0
2107	1,101,349,735	0	0	0	0	0	0
2108	1,177,300,344	0	0	0	0	0	0
2109	1,258,455,972	0	0	0	0	0	0
2110	1,345,171,966	0	0	0	0	0	0
2111	1,437,827,854	0	0	0	0	0	0
2112	1,536,828,934	0	0	0	0	0	0
2113	1,642,608,215	0	0	0	0	0	0
2114	1,755,628,189	0	0	0	0	0	0
2115	1,876,382,864	0	0	0	0	0	0
2116	2,005,399,915	0	0	0	0	0	0
2117	2,143,243,031	0	0	0	0	0	0
2118	2,290,514,341	0	0	0	0	0	0
2119	2,447,856,988	0	0	0	0	0	0
2120	2,615,957,966	0	0	0	0	0	0
Totals					\$ 52,946,674	\$ 0	\$ 52,946,674



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
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.
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 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 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

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).
Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of employees that are provided with pensions through the pension plan.
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.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.

Glossary of Terms

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 cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

Fiduciary Net Position

The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.

GASB

The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

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. 67, 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 contributing entities to plan members for benefits provided through a defined benefit pension plan.



Glossary of Terms

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.
Total Pension Expense	<p>The total pension expense is the sum of the following items that are recognized at the end of the employer’s fiscal year:</p> <ol style="list-style-type: none">1. Service Cost2. Interest on the Total Pension Liability3. Current-Period Benefit Changes4. Employee Contributions (made negative for addition here)5. Projected Earnings on Plan Investments (made negative for addition here)6. Pension Plan Administrative Expense7. Other Changes in Plan Fiduciary Net Position8. Recognition of Outflow (Inflow) of Resources due to Liabilities9. 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 GASB Statement Nos. 67 and 68, the valuation assets are equal to the market value of assets.