

Wyoming Air Guard Firefighters Retirement System

GASB Statement Nos. 67 and 68 Accounting and Financial
Reporting for Pensions
For Measurement Date as of December 31, 2024





April 8, 2025

Board of Trustees
Wyoming Air Guard Firefighters Retirement System

Dear Board Members:

This report provides information required by the Wyoming Air Guard Firefighters Retirement System (WRS) in connection with the Governmental Accounting Standards Board (GASB) Statement Nos. 67 and Statement No. 68 "Accounting and Financial Reporting for Pensions." 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 Nos. 67 and 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 Air Guard Firefighters 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, 2024 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 includes the assumptions adopted by the Board are based on 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 Air Guard Firefighters Retirement System as of the valuation date.

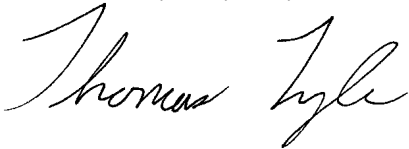
All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

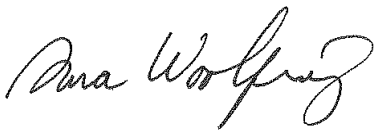
Paul T. Wood, Thomas A. Lyle, Dana Woolfrey, and Karli Fehrman are members of the American Academy of Actuaries (MAAA) and are experienced in performing valuations for public retirement systems. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.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

Respectfully submitted,

Gabriel, Roeder, Smith & Company

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SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2024

	2024
Actuarial Valuation Date	January 1, 2024
Measurement Date of the Net Pension Liability	December 31, 2024
Employer's Fiscal Year Ending Date (Reporting Date)	December 31, 2024

Membership

Number of	
- Retirees and Beneficiaries	20
- Inactive, Nonretired Members	21
- Active Members	36
- Total	77
Covered Payroll	\$ 2,385,671

Net Pension Liability

Total Pension Liability	\$ 12,872,767
Plan Fiduciary Net Position	11,469,825
Net Pension Liability	\$ 1,402,942
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	89.10 %
Net Pension Liability as a Percentage of Covered Payroll	58.81 %

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*	4.08 %
Last year ending December 31 in the 2024 to 2123 projection period for which projected benefit payments are fully funded	2123

Total Pension Expense	\$ 274,604
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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	\$ 700,475	\$ 0
Changes in assumptions	139,361	0
Net difference between projected and actual earnings on pension plan investments	568,082	850,181
Total	\$ 1,407,918	\$ 850,181

*Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in the Bond Buyer "20-Bond GO Index" as of December 31, 2024.



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, 2024.

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 decrease slightly as a percentage of payroll.
2. The unfunded liability is expected to decrease as a percentage of payroll each year in the future.
3. The unfunded liability is expected to be fully amortized during the lifetimes of current members.
4. The funded status of the plan is expected to increase gradually towards a 100% funded ratio.

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 2123. 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, 2024 and rolled forward to a measurement date of December 31, 2024.



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 4.08% (based on the daily rate closest to but not later than the measurement date of the Bond Buyer "20-Bond GO 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 Air Guard Firefighters 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, 2024

A. Expense

1. Service Cost	\$	366,401
2. Interest on the Total Pension Liability		832,986
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(449,973)
5. Projected Earnings on Plan Investments (made negative for addition here)		(711,703)
6. Pension Plan Administrative Expense		18,353
7. Other Changes in Plan Fiduciary Net Position		766
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		378,359
9. Recognition of Outflow (Inflow) of Resources due to Assets		(160,585)
10. Total Pension Expense	\$	274,604 *

* 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, 2024

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 151,968
2. Assumption Changes (gains) or losses	\$ 0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	5.0305
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	\$ 30,209
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes	\$ 0
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	<u>\$ 30,209</u>
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	\$ 121,759
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes	\$ 0
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	<u>\$ 121,759</u>

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (371,362)
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	\$ (74,272)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (297,090)



History of Deferred Outflows and Inflows of Resources by Source

Fiscal Year Ended December 31, 2024

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

Recognition Period	8.7180	8.3862	7.7574	7.8568	8.0476	7.9281	6.2137	5.6597	5.5901	5.0305		(Inflows)/Outflows at Measurement Date
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	
Total	\$ 201,096	\$ 65,370	\$ 272,060	\$ 161,615	\$ 1,751	\$ 186,135	\$ 193,673	\$ 698,485	\$ 147,399	\$ 151,968		
2015	23,067										23,067	
2016	23,067	7,795									30,862	
2017	23,067	7,795	35,071								65,933	
2018	23,067	7,795	35,071	20,570							86,503	
2019	23,067	7,795	35,071	20,570	218						86,721	
2020	23,067	7,795	35,071	20,570	218	23,478					110,199	
2021	23,067	7,795	35,071	20,570	218	23,478	31,169				141,368	
2022	23,067	7,795	35,071	20,570	218	23,478	31,169	123,414			264,782	
2023	16,560	7,795	35,071	20,570	218	23,478	31,169	123,414	26,368		284,643	
2024	-	3,010	26,563	20,570	218	23,478	31,169	123,414	26,368	30,209	284,999	
2025	-	-	-	17,625	218	23,478	31,169	123,414	26,368	30,209	252,481	\$ 700,475
2026	-	-	-	-	218	23,478	31,169	123,414	26,368	30,209	234,856	
2027	-	-	-	-	7	21,789	6,659	81,415	26,368	30,209	166,447	
2028	-	-	-	-	-	-	-	-	15,559	30,209	45,768	
2029	-	-	-	-	-	-	-	-	-	923	923	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ 201,096	\$ 65,370	\$ 272,060	\$ 161,615	\$ 1,751	\$ 186,135	\$ 193,673	\$ 698,485	\$ 147,399	\$ 151,968	\$ 2,079,552	

Assumption changes - Net (inflows)/outflows of resources

Recognition Period	8.7180	8.3862	7.7574	7.8568	8.0476	7.9281	6.2137	5.6597	5.5901	5.0305		
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	
Total	\$ -	\$ -	\$ 311,427	\$ -	\$ -	\$ -	\$ 391,181	\$ -	\$ -	\$ -		
2015	-										-	
2016	-	-									-	
2017	-	-	40,146								40,146	
2018	-	-	40,146	-							40,146	
2019	-	-	40,146	-	-						40,146	
2020	-	-	40,146	-	-	-					40,146	
2021	-	-	40,146	-	-	-	62,955				103,101	
2022	-	-	40,146	-	-	-	62,955	-			103,101	
2023	-	-	40,146	-	-	-	62,955	-	-		103,101	
2024	-	-	30,405	-	-	-	62,955	-	-	-	93,360	
2025	-	-	-	-	-	-	62,955	-	-	-	62,955	\$ 139,361
2026	-	-	-	-	-	-	62,955	-	-	-	62,955	
2027	-	-	-	-	-	-	13,451	-	-	-	13,451	
2028	-	-	-	-	-	-	-	-	-	-	-	
2029	-	-	-	-	-	-	-	-	-	-	-	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ -	\$ -	\$ 311,427	\$ -	\$ -	\$ -	\$ 391,181	\$ -	\$ -	\$ -	\$ 702,608	



History of Deferred Outflows and Inflows of Resources by Source

Fiscal Year Ended December 31, 2024 (continued)

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	5.0000	5.0000	5.0000	(Inflows)/Outflows at Measurement Date
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	
Total	\$ 525,780	\$ 41,782	\$ (447,294)	\$ 776,171	\$ (795,705)	\$ (302,799)	\$ (940,725)	\$ 1,420,202	\$ (608,244)	\$ (371,362)		
2015	105,156										105,156	
2016	105,156	8,356									113,512	
2017	105,156	8,356	(89,459)								24,053	
2018	105,156	8,356	(89,459)	155,234							179,287	
2019	105,156	8,356	(89,459)	155,234	(159,141)						20,146	
2020	-	8,358	(89,459)	155,234	(159,141)	(60,560)					(145,568)	
2021	-	-	(89,458)	155,234	(159,141)	(60,560)	(188,145)				(342,070)	
2022	-	-	-	155,235	(159,141)	(60,560)	(188,145)	284,040			31,429	
2023	-	-	-	-	(159,141)	(60,560)	(188,145)	284,040	(121,649)		(245,455)	
2024	-	-	-	-	-	(60,559)	(188,145)	284,040	(121,649)	(74,272)	(160,585)	
2025	-	-	-	-	-	-	(188,145)	284,040	(121,649)	(74,272)	(100,026)	\$ (282,099)
2026	-	-	-	-	-	-	-	284,042	(121,649)	(74,272)	88,121	
2027	-	-	-	-	-	-	-	-	(121,648)	(74,272)	(195,920)	
2028	-	-	-	-	-	-	-	-	-	(74,274)	(74,274)	
2029	-	-	-	-	-	-	-	-	-	-	-	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ 525,780	\$ 41,782	\$ (447,294)	\$ 776,171	\$ (795,705)	\$ (302,799)	\$ (940,725)	\$ 1,420,202	\$ (608,244)	\$ (371,362)	\$ (702,194)	

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

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	
Total	\$ 726,876	\$ 107,152	\$ 136,193	\$ 937,786	\$ (793,954)	\$ (116,664)	\$ (355,871)	\$ 2,118,687	\$ (460,845)	\$ (219,394)		
2015	128,223										128,223	
2016	128,223	16,151									144,374	
2017	128,223	16,151	(14,242)								130,132	
2018	128,223	16,151	(14,242)	175,804							305,936	
2019	128,223	16,151	(14,242)	175,804	(158,923)						147,013	
2020	23,067	16,153	(14,242)	175,804	(158,923)	(37,082)					4,777	
2021	23,067	7,795	(14,241)	175,804	(158,923)	(37,082)	(94,021)				(97,601)	
2022	23,067	7,795	75,217	175,805	(158,923)	(37,082)	(94,021)	407,454			399,312	
2023	16,560	7,795	75,217	20,570	(158,923)	(37,082)	(94,021)	407,454	(95,281)		142,289	
2024	-	3,010	56,968	20,570	218	(37,081)	(94,021)	407,454	(95,281)	(44,063)	217,774	
2025	-	-	-	17,625	218	23,478	(94,021)	407,454	(95,281)	(44,063)	215,410	\$ 557,737
2026	-	-	-	-	218	23,478	94,124	407,456	(95,281)	(44,063)	385,932	
2027	-	-	-	-	7	21,789	20,110	81,415	(95,280)	(44,063)	(16,022)	
2028	-	-	-	-	-	-	-	-	15,559	(44,065)	(28,506)	
2029	-	-	-	-	-	-	-	-	-	923	923	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ 726,876	\$ 107,152	\$ 136,193	\$ 937,786	\$ (793,954)	\$ (116,664)	\$ (355,871)	\$ 2,118,687	\$ (460,845)	\$ (219,394)	\$ 2,079,966	



Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods

Fiscal Year Ended December 31, 2024

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	\$ 378,359	\$ 0	\$ 378,359
2. Due to Assets	284,040	444,625	(160,585)
3. Total	\$ 662,399	\$ 444,625	\$ 217,774

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	\$ 284,999	\$ 0	\$ 284,999
2. Assumption Changes	93,360	0	93,360
3. Net Difference between projected and actual earnings on pension plan investments	284,040	444,625	(160,585)
4. Total	\$ 662,399	\$ 444,625	\$ 217,774

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	\$ 700,475	\$ 0	\$ 700,475
2. Assumption Changes	139,361	0	139,361
3. Net Difference between projected and actual earnings on pension plan investments	568,082	850,181	(282,099)
4. Total	\$ 1,407,918	\$ 850,181	\$ 557,737

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
2025	\$ 215,410
2026	385,932
2027	(16,022)
2028	(28,506)
2029	923
Thereafter	0
Total	\$ 557,737



Statement of Fiduciary Net Position as of December 31, 2024

	<u>2024</u>
Assets	
Cash and Deposits	\$ 719,708
Receivables	
Accounts Receivable - Sale of Investments	\$ 100,793
Accrued Interest and Other Dividends	22,469
Contributions	0
Accounts Receivable - Other	648,199
Total Receivables	<u>\$ 771,461</u>
Investments	
Fixed Income	\$ 1,827,768
Equities	5,406,132
Private Markets	1,402,525
Marketable Alternatives	2,031,008
Security Lending Collateral	400,826
Capital Assets, at Cost, Net of Accumulated Depreciation	1,674
Total Investments	<u>\$ 11,069,933</u>
Total Assets	<u>\$ 12,561,102</u>
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 1,074,536
Accrued Expenses	16,741
Accounts Payable - Other	0
Total Liabilities	<u>\$ 1,091,277</u>
Net Position Restricted for Pensions	<u>\$ 11,469,825</u>



Statement of Changes in Fiduciary Net Position for Year Ended December 31, 2024

	<u>2024</u>
Additions	
Contributions	
Employer	\$ 192,421
Employee	449,973
Other - Employer	8
Other - Employee	0
Total Contributions	<u>\$ 642,402</u>
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 930,464
Interest and Dividends	233,713
Less Investment Expense	<u>(81,112)</u>
Net Investment Income	<u>\$ 1,083,065</u>
Other	<u>\$ 0</u>
Total Additions	<u><u>\$ 1,725,467</u></u>
 Deductions	
Benefit Payments, including Refunds of Employee Contributions	\$ 779,638
Pension Plan Administrative Expense	18,353
Other	<u>766</u>
Total Deductions	<u><u>\$ 798,757</u></u>
 Net Increase in Net Position	 \$ 926,710
 Net Position Restricted for Pensions	
Beginning of Year	<u>\$ 10,543,115</u>
End of Year	<u><u>\$ 11,469,825</u></u>

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Air Guard Firefighters 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, 2024

A. Total pension liability		
1. Service cost	\$	366,401
2. Interest on the total pension liability		832,986
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the total pension liability		151,968
5. Changes of assumptions		0
6. Benefit payments, including refunds of employee contributions		(779,638)
7. Net change in total pension liability		<u>571,717</u>
8. Total pension liability – beginning		<u>12,301,050</u>
9. Total pension liability – ending	\$	<u>12,872,767</u>
B. Plan fiduciary net position		
1. Contributions – employer	\$	192,429
2. Contributions – employee		449,973
3. Net investment income		1,083,065
4. Benefit payments, including refunds of employee contributions		(779,638)
5. Pension plan administrative expense		(18,353)
6. Other		(766)
7. Net change in plan fiduciary net position		<u>926,710</u>
8. Plan fiduciary net position – beginning		<u>10,543,115</u>
9. Plan fiduciary net position – ending	\$	<u>11,469,825</u>
C. Net pension liability	\$	<u>1,402,942</u>
D. Plan fiduciary net position as a percentage of the total pension liability		
		89.10 %
E. Covered-employee payroll	\$	2,385,671
F. Net pension liability as a percentage of covered-employee payroll		
		58.81 %

Schedules of Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Fiscal year ending December 31,	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability										
Service cost	\$ 366,401	\$ 350,484	\$ 341,554	\$ 344,841	\$ 312,751	\$ 317,202	\$ 294,146	\$ 272,169	\$ 337,474	\$ 331,123
Interest on the total pension liability	832,986	799,646	772,538	711,065	667,446	624,153	599,634	563,514	554,448	517,889
Changes of benefit terms	0	0	0	0	0	0	0	0	0	0
Difference between expected and actual experience	151,968	147,399	698,485	193,673	186,135	1,751	161,615	272,060	65,370	201,096
Changes of assumptions	0	0	0	391,181	0	0	0	311,427	0	0
Benefit payments, including refunds of employee contributions	(779,638)	(858,328)	(875,856)	(822,537)	(500,565)	(512,859)	(598,879)	(390,843)	(702,598)	(189,069)
Net change in total pension liability	571,717	439,201	936,721	818,223	665,767	430,247	456,516	1,028,327	254,694	861,039
Total pension liability - beginning	12,301,050	11,861,849	10,925,128	10,106,905	9,441,138	9,010,891	8,554,375	7,526,048	7,271,354	6,410,315
Total pension liability - ending (a)	\$ 12,872,767	\$ 12,301,050	\$ 11,861,849	\$ 10,925,128	\$ 10,106,905	\$ 9,441,138	\$ 9,010,891	\$ 8,554,375	\$ 7,526,048	\$ 7,271,354
Plan fiduciary net position										
Employer contributions	\$ 192,429	\$ 170,055	\$ 168,339	\$ 155,959	\$ 141,013	\$ 158,176	\$ 159,583	\$ 156,263	\$ 136,768	\$ 158,319
Employee contributions	449,973	397,612	393,638	364,707	329,758	369,907	445,101	367,485	376,685	405,026
Pension plan net investment income	1,083,065	1,250,551	(708,418)	1,567,665	897,557	1,300,461	(253,859)	902,109	431,043	(55,411)
Benefit payments, including refunds of employee contributions	(779,638)	(858,328)	(875,856)	(822,537)	(500,565)	(512,859)	(598,879)	(390,843)	(702,598)	(189,069)
Pension plan administrative expense	(18,353)	(9,887)	(10,439)	(12,936)	(8,047)	(6,972)	(7,141)	(6,431)	(5,731)	(4,637)
Other	(766)	(746)	(616)	(337)	(323)	(327)	(292)	(602)	(301)	(276)
Net change in plan fiduciary net position	926,710	949,257	(1,033,352)	1,252,521	859,393	1,308,386	(255,487)	1,027,981	235,866	313,952
Plan fiduciary net position - beginning	10,543,115	9,593,858	10,627,210	9,374,689	8,515,296	7,206,910	7,462,397	6,434,416	6,198,550	5,884,598
Plan fiduciary net position - ending (b)	\$ 11,469,825	\$ 10,543,115	\$ 9,593,858	\$ 10,627,210	\$ 9,374,689	\$ 8,515,296	\$ 7,206,910	\$ 7,462,397	\$ 6,434,416	\$ 6,198,550
Net pension liability - ending (a) - (b)	\$ 1,402,942	\$ 1,757,935	\$ 2,267,991	\$ 297,918	\$ 732,216	\$ 925,842	\$ 1,803,981	\$ 1,091,978	\$ 1,091,632	\$ 1,072,804
Plan fiduciary net position as a percentage of total pension liability	89.10 %	85.71 %	80.88 %	97.27 %	92.76 %	90.19 %	79.98 %	87.23 %	85.50 %	85.25 %
Covered-employee payroll	\$ 2,385,671	\$ 2,240,946	\$ 2,145,431	\$ 2,157,801	\$ 2,316,140	\$ 2,341,404	\$ 2,154,544	\$ 1,975,631	\$ 2,151,997	\$ 2,124,296
Projected valuation payroll	\$ 2,445,313	\$ 2,296,970	\$ 2,199,066	\$ 2,211,746	\$ 2,374,043	\$ 2,399,940	\$ 2,208,407	\$ 2,059,595	\$ 2,243,456	\$ 2,214,578
Net pension liability as a percentage of covered-employee payroll	58.81 %	78.45 %	105.71 %	13.81 %	31.61 %	39.54 %	83.73 %	55.27 %	50.73 %	50.50 %

Notes to Schedule:

For 2024 through 2015, "Other" changes to Plan Fiduciary Net Position includes other funding sources and depreciation expenses.



Schedules of Required Supplementary Information

Schedule of Net Pension Liability Multiyear

<u>FY Ending December 31,</u>	<u>Total Pension Liability</u>	<u>Plan Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Net Position as a % of Total Pension Liability</u>	<u>Covered Payroll*</u>	<u>Net Pension Liability as a % of Covered Payroll</u>
2015	\$ 7,271,354	\$ 6,198,550	\$ 1,072,804	85.25 %	\$ 2,124,296	50.50 %
2016	7,526,048	6,434,416	1,091,632	85.50 %	2,151,997	50.73 %
2017	8,554,375	7,462,397	1,091,978	87.23 %	1,975,631	55.27 %
2018	9,010,891	7,206,910	1,803,981	79.98 %	2,154,544	83.73 %
2019	9,441,138	8,515,296	925,842	90.19 %	2,341,404	39.54 %
2020	10,106,905	9,374,689	732,216	92.76 %	2,316,140	31.61 %
2021	10,925,128	10,627,210	297,918	97.27 %	2,157,801	13.81 %
2022	11,861,849	9,593,858	2,267,991	80.88 %	2,145,431	105.71 %
2023	12,301,050	10,543,115	1,757,935	85.71 %	2,240,946	78.45 %
2024	12,872,767	11,469,825	1,402,942	89.10 %	2,385,671	58.81 %

* 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

<u>FY Ending December 31,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll*</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2015	\$ 3,987	\$ 158,319	\$ (154,332)	\$ 2,124,296	7.45 %
2016	7,634	136,768	(129,134)	2,151,997	6.36 %
2017	6,011	156,263	(150,252)	1,975,631	7.91 %
2018	11,590	159,583	(147,993)	2,154,544	7.41 %
2019	4,344	158,176	(153,832)	2,341,404	6.76 %
2020	15,348	141,013	(125,665)	2,316,140	6.09 %
2021	19,558	155,959	(136,401)	2,157,801	7.23 %
2022	126,605	168,339	(41,734)	2,145,431	7.85 %
2023	126,727	170,055	(43,328)	2,240,946	7.59 %
2024	110,268	192,429	(82,161)	2,385,671	8.07 %

* 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, 2024
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	22 years
Asset Valuation Method	5-Year smoothed market
Inflation	2.25%
Salary Increases	4.75% to 8.75% including inflation
Payroll Growth Rate	2.50%
Cost-of-Living Increase	0.00%
Investment Rate of Return	6.80%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2022 valuation pursuant to an experience study of the period 2016 - 2020.
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%
Pre-Retirement Mortality	Pub-2010 General Employee 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%

Other Information:

Notes	There were no benefit changes during the year. The employer is currently contributing at the rate of 7.12% of salary. Employees are currently contributing at the rate of 16.25% of salary. The roll-forward methodology employed for purposes of the GASB disclosures is based on generally accepted actuarial methods.
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Schedule of Investment Returns Multiyear Last 10 Fiscal Years

FY Ending December 31,	Annual Return ¹
2015	(0.26)%
2016	7.60 %
2017	14.20 %
2018	(3.52)%
2019	18.72 %
2020	11.03 %
2021	17.19 %
2022	(6.99)%
2023	13.84 %
2024	10.54 %

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 Air Guard Firefighters 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 required contribution rate. 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

Current Single Discount		
1% Decrease	Rate Assumption	1% Increase
5.80%	6.80%	7.80%
\$ 3,030,127	\$ 1,402,942	\$ 97,239

Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	20
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	21
Active Plan Members	<u>36</u>
Total Plan Members	77

SECTION E

SUMMARY OF BENEFITS

Summary of Benefits

Covered Members	Any employees covered by the Air Guard Firefighter Pension Plan (Air Guard Firefighters employees).
Final Average Salary	Employee's average annual salary for the highest paid three continuous years of service.
Service Retirement	
Eligibility	Age 60 with four or more years of service or age 50 with 25 or more years of service. All employees are eligible for a reduced benefit at age 50 with four or more years of service or any age with 25 or more years of service.
Monthly Benefit	2.50% of employee's Final Average Salary for each year of credited service. This amount is reduced by 5.0% per year that the employee is under age 60. However, members who are at least age 55 retiring with a combined age and service of at least 75 receive an unreduced benefit.
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 is only eligible for the lump-sum benefit.
Disability Benefit	
Eligibility	Ten or more years of service.
Benefit	65% of salary as of the date of disability, payable immediately.
Pre-retirement Death Benefit	
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 annuity equal to the actuarial equivalent of the retirement benefit that would be due the employee.
Contributions	
Employee	16.65% of salary.
Employer	7.12% 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.

Optional Forms of Payment

Option 1 (normal form)	Monthly benefit for life with a lump-sum death benefit equal to the excess (if any) of the employee contributions with interest over the total benefits received.
Option 2	Monthly benefit for life. Upon death, 100% of the benefit continues to be paid to the beneficiary.
Option 2P	Monthly benefit for life. Upon death, 100% of the benefit continues to be paid to the beneficiary. Benefit reverts to Option 1 amount but without the cash refund feature upon beneficiary death.
Option 3	Monthly benefit for life. Upon death, 50% of the benefit continues to be paid to the beneficiary.
Option 3P	Monthly benefit for life. Upon death, 50% of the benefit continues to be paid to the beneficiary. Benefit reverts to Option 1 amount but without the cash refund feature upon beneficiary death.
Option 4	Monthly benefit for life with a guarantee of 120 monthly payments
Option 5	The largest possible monthly benefit payable for life with no lump-sum death benefit.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Assumptions and Cost Method

The following methods and assumptions were used in preparing the January 1, 2024 actuarial valuation report 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 an 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 30 years from the valuation date. The Board's policy consists of amortizing the unfunded liability as of January 1, 2018, over a closed 30-year period with each subsequent amortization base created as a result of year to year experience changes over individual 20-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

Service	Rate
1	6.50%
2	6.50%
3	6.50%
4	6.00%
5	5.25%
6	4.75%
7	4.25%
8	4.00%
9	4.00%
10	3.50%
11	3.50%
12	3.50%
13	3.50%
14	3.25%
15	3.00%
16	3.00%
17	2.75%
18	2.75%
19	2.75%
20	2.75%
21+	2.50%

c. Payroll growth rate

In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 2.50% 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 Healthy 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 2024 using the MP-2020 Ultimate Scale					
	Male	Female	Male	Female	Male	Female
20	0.03%	0.01%	0.03%	0.01%	0.34%	0.19%
25	0.02%	0.01%	0.02%	0.01%	0.23%	0.14%
30	0.03%	0.01%	0.03%	0.01%	0.29%	0.21%
35	0.04%	0.02%	0.04%	0.02%	0.38%	0.33%
40	0.05%	0.03%	0.05%	0.03%	0.53%	0.52%
45	0.08%	0.05%	0.09%	0.06%	0.83%	0.81%
50	0.12%	0.07%	0.25%	0.19%	1.33%	1.23%
55	0.18%	0.10%	0.36%	0.24%	1.75%	1.44%
60	0.26%	0.15%	0.51%	0.33%	2.07%	1.62%
65	0.39%	0.25%	0.76%	0.53%	2.53%	1.88%
70	0.59%	0.41%	1.28%	0.92%	3.28%	2.40%
75			2.27%	1.64%	4.40%	3.39%
80			4.09%	2.96%	6.29%	5.15%
85			7.60%	5.66%	9.57%	8.26%
90			13.43%	10.83%	14.88%	12.51%
95			21.64%	18.33%	22.33%	18.25%
100			31.27%	27.81%	31.27%	27.00%

b. Disability

Age	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	0.03%	0.03%
50	0.08%	0.08%
55	0.20%	0.20%
60	0.20%	0.20%

65% of active disabilities are
assumed to be duty-related

c. Withdrawal

Service	Male	Female
1-4	13.00%	14.00%
5	13.00%	13.00%
6	11.00%	11.00%
7	10.00%	10.00%
8	9.00%	9.00%
9	8.00%	8.00%
10	8.00%	8.00%
11	8.00%	8.00%
12	8.00%	7.00%
13	7.00%	7.00%
14	6.00%	7.00%
15	6.00%	6.00%
16	5.00%	6.00%
17	5.00%	6.00%
18	4.00%	6.00%
19+	3.00%	6.00%

d. Retirement Rates

Age	Retirement	
	Unreduced	Reduced
<50	15.00%	0.20%
50-54	15.00%	0.20%
55-59	17.00%	0.20%
60-61	13.00%	0.20%
62	18.00%	0.30%
63-64	15.00%	0.50%
65	30.00%	1.00%
66	35.00%	1.00%
67	28.00%	1.00%
68	25.00%	1.50%
69	25.00%	2.00%
70	25.00%	2.50%
71-73	20.00%	2.50%
74-79	15.00%	2.50%
80+	100.00%	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, whichever is more valuable at the time of termination.
- 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 60.
- 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.
- h. No surviving spouse will remarry.
- i. Administrative expenses: Assumed to be the average of the actual expenses for 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 4.08%; 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 2024 to 2073

Year	Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees	Employer Contributions Related to Payroll of Future Employees	Total Contributions
	(a)	(b)=max(0,(c)-(a))	(c)	(d)	(e)=(a)*ER%	(f) = (b)*netER%	(g)=(d)+(e)+(f)
2024	\$ 2,377,582	\$ 67,731	\$ 2,445,313	\$ 449,973	\$ 185,810	\$ 6,611	\$ 642,394
2025	2,238,548	267,898	2,506,446	372,718	159,385	26,149	558,252
2026	2,107,305	461,802	2,569,107	350,866	150,040	45,076	545,982
2027	1,987,692	645,643	2,633,335	330,951	141,524	63,018	535,493
2028	1,885,065	814,103	2,699,168	313,863	134,217	79,456	527,536
2029	1,798,105	968,542	2,766,647	299,384	128,025	94,527	521,936
2030	1,710,527	1,125,286	2,835,813	284,803	121,790	109,829	516,422
2031	1,621,117	1,285,591	2,906,708	269,916	115,424	125,482	510,822
2032	1,539,993	1,439,383	2,979,376	256,409	109,648	140,502	506,559
2033	1,464,652	1,589,208	3,053,860	243,865	104,283	155,136	503,284
2034	1,402,557	1,727,650	3,130,207	233,526	99,862	168,659	502,047
2035	1,346,206	1,862,256	3,208,462	224,143	95,850	181,807	501,800
2036	1,295,220	1,993,454	3,288,674	215,654	92,220	194,624	502,498
2037	1,252,056	2,118,835	3,370,891	208,467	89,146	206,876	504,489
2038	1,211,111	2,244,052	3,455,163	201,650	86,231	219,107	506,988
2039	1,172,932	2,368,610	3,541,542	195,293	83,513	231,260	510,066
2040	1,127,598	2,502,483	3,630,081	187,745	80,285	244,310	512,340
2041	1,073,307	2,647,526	3,720,833	178,706	76,419	258,437	513,562
2042	1,024,691	2,789,163	3,813,854	170,611	72,958	272,224	515,793
2043	974,749	2,934,451	3,909,200	162,296	69,402	286,361	518,059
2044	908,895	3,098,035	4,006,930	151,331	64,713	302,300	518,344
2045	827,498	3,279,605	4,107,103	137,778	58,918	320,034	516,730
2046	747,727	3,462,054	4,209,781	124,496	53,238	337,891	515,625
2047	679,493	3,635,533	4,315,026	113,136	48,380	354,905	516,421
2048	616,810	3,806,092	4,422,902	102,699	43,917	371,658	518,274
2049	551,780	3,981,695	4,533,475	91,871	39,287	388,927	520,085
2050	483,191	4,163,621	4,646,812	80,451	34,403	406,843	521,697
2051	417,570	4,345,412	4,762,982	69,525	29,731	424,763	524,019
2052	359,443	4,522,614	4,882,057	59,847	25,592	442,238	527,677
2053	305,247	4,698,861	5,004,108	50,824	21,734	459,612	532,170
2054	257,178	4,872,033	5,129,211	42,820	18,311	476,679	537,810
2055	216,590	5,040,851	5,257,441	36,062	15,421	493,311	544,794
2056	181,648	5,207,229	5,388,877	30,244	12,933	509,696	552,873
2057	151,723	5,371,876	5,523,599	25,262	10,803	525,898	561,963
2058	126,826	5,534,863	5,661,689	21,117	9,030	541,925	572,072
2059	105,594	5,697,637	5,803,231	17,581	7,518	557,917	583,016
2060	86,799	5,861,513	5,948,312	14,452	6,180	574,005	594,637
2061	70,963	6,026,057	6,097,020	11,815	5,053	590,150	607,018
2062	57,952	6,191,494	6,249,446	9,649	4,126	606,377	620,152
2063	47,268	6,358,414	6,405,682	7,870	3,365	622,745	633,980
2064	38,342	6,527,482	6,565,824	6,384	2,730	639,320	648,434
2065	30,060	6,699,910	6,729,970	5,005	2,140	656,224	663,369
2066	22,965	6,875,254	6,898,219	3,824	1,635	673,415	678,874
2067	17,611	7,053,063	7,070,674	2,932	1,254	690,845	695,031
2068	13,365	7,234,076	7,247,441	2,225	952	708,589	711,766
2069	10,146	7,418,481	7,428,627	1,689	722	726,664	729,075
2070	7,740	7,606,603	7,614,343	1,289	551	745,106	746,946
2071	5,971	7,798,731	7,804,702	994	425	763,943	765,362
2072	4,761	7,995,059	7,999,820	793	339	783,194	784,326
2073	3,808	8,196,008	8,199,816	634	271	802,897	803,802



Single Discount Rate Development

Projection of Contributions

Ending December 31 for 2074 to 2123 (concluded)

Year	Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees	Employer Contributions Related to Payroll of Future Employees	Total Contributions
	(a)	(b)=max(0,(c)-(a))	(c)	(d)	(e)=(a)*ER%	(f) = (b) *netER%	(g)=(d)+(e)+(f)
2074	\$ 2,972	\$ 8,401,839	\$ 8,404,811	\$ 495	\$ 212	\$ 823,079	\$ 823,786
2075	2,167	8,612,764	8,614,931	361	154	843,761	844,276
2076	1,602	8,828,702	8,830,304	267	114	864,935	865,316
2077	1,295	9,049,767	9,051,062	216	92	886,611	886,919
2078	1,025	9,276,314	9,277,339	171	73	908,823	909,067
2079	740	9,508,532	9,509,272	123	53	931,590	931,766
2080	395	9,746,609	9,747,004	66	28	954,930	955,024
2081	161	9,990,518	9,990,679	27	11	978,840	978,878
2082	111	10,240,335	10,240,446	18	8	1,003,328	1,003,354
2083	53	10,496,404	10,496,457	9	4	1,028,426	1,028,439
2084	-	10,758,868	10,758,868	-	-	1,054,150	1,054,150
2085	-	11,027,840	11,027,840	-	-	1,080,509	1,080,509
2086	-	11,303,536	11,303,536	-	-	1,107,525	1,107,525
2087	-	11,586,124	11,586,124	-	-	1,135,215	1,135,215
2088	-	11,875,777	11,875,777	-	-	1,163,596	1,163,596
2089	-	12,172,671	12,172,671	-	-	1,192,684	1,192,684
2090	-	12,476,988	12,476,988	-	-	1,222,499	1,222,499
2091	-	12,788,913	12,788,913	-	-	1,253,058	1,253,058
2092	-	13,108,636	13,108,636	-	-	1,284,380	1,284,380
2093	-	13,436,352	13,436,352	-	-	1,316,485	1,316,485
2094	-	13,772,261	13,772,261	-	-	1,349,392	1,349,392
2095	-	14,116,568	14,116,568	-	-	1,383,121	1,383,121
2096	-	14,469,482	14,469,482	-	-	1,417,694	1,417,694
2097	-	14,831,219	14,831,219	-	-	1,453,131	1,453,131
2098	-	15,201,999	15,201,999	-	-	1,489,455	1,489,455
2099	-	15,582,049	15,582,049	-	-	1,526,687	1,526,687
2100	-	15,971,600	15,971,600	-	-	1,564,850	1,564,850
2101	-	16,370,890	16,370,890	-	-	1,603,968	1,603,968
2102	-	16,780,162	16,780,162	-	-	1,644,065	1,644,065
2103	-	17,199,666	17,199,666	-	-	1,685,165	1,685,165
2104	-	17,629,658	17,629,658	-	-	1,727,292	1,727,292
2105	-	18,070,399	18,070,399	-	-	1,770,474	1,770,474
2106	-	18,522,159	18,522,159	-	-	1,814,736	1,814,736
2107	-	18,985,213	18,985,213	-	-	1,860,104	1,860,104
2108	-	19,459,843	19,459,843	-	-	1,906,608	1,906,608
2109	-	19,946,339	19,946,339	-	-	1,954,274	1,954,274
2110	-	20,444,997	20,444,997	-	-	2,003,133	2,003,133
2111	-	20,956,122	20,956,122	-	-	2,053,213	2,053,213
2112	-	21,480,025	21,480,025	-	-	2,104,545	2,104,545
2113	-	22,017,026	22,017,026	-	-	2,157,160	2,157,160
2114	-	22,567,452	22,567,452	-	-	2,211,091	2,211,091
2115	-	23,131,638	23,131,638	-	-	2,266,371	2,266,371
2116	-	23,709,929	23,709,929	-	-	2,323,032	2,323,032
2117	-	24,302,677	24,302,677	-	-	2,381,109	2,381,109
2118	-	24,910,244	24,910,244	-	-	2,440,638	2,440,638
2119	-	25,533,000	25,533,000	-	-	2,501,656	2,501,656
2120	-	26,171,325	26,171,325	-	-	2,564,198	2,564,198
2121	-	26,825,608	26,825,608	-	-	2,628,304	2,628,304
2122	-	27,496,248	27,496,248	-	-	2,694,012	2,694,012
2123	-	28,183,654	28,183,654	-	-	2,761,363	2,761,363



Single Discount Rate Development

Projection of Plan Net Position

Ending December 31 for 2024 to 2073

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)
2024	\$ 10,543,115	\$ 642,402	\$ 779,638	\$ 19,119	\$ 1,083,065	\$ 11,469,825
2025	11,469,825	558,252	727,049	10,778	773,943	12,064,193
2026	12,064,193	545,982	736,358	11,047	813,629	12,676,400
2027	12,676,400	535,493	754,557	11,323	854,291	13,300,304
2028	13,300,304	527,536	773,832	11,606	895,796	13,938,198
2029	13,938,198	521,936	784,866	11,897	938,607	14,601,979
2030	14,601,979	516,422	800,098	12,194	983,040	15,289,149
2031	15,289,149	510,822	818,366	12,499	1,028,960	15,998,065
2032	15,998,065	506,559	838,125	12,811	1,076,352	16,730,040
2033	16,730,040	503,284	858,777	13,132	1,125,316	17,486,730
2034	17,486,730	502,047	878,576	13,460	1,176,056	18,272,797
2035	18,272,797	501,800	898,750	13,796	1,228,815	19,090,866
2036	19,090,866	502,498	916,647	14,141	1,283,857	19,946,433
2037	19,946,433	504,489	933,711	14,495	1,341,519	20,844,235
2038	20,844,235	506,988	953,102	14,857	1,401,993	21,785,257
2039	21,785,257	510,066	981,535	15,229	1,465,122	22,763,681
2040	22,763,681	512,340	1,020,846	15,609	1,530,403	23,769,970
2041	23,769,970	513,562	1,054,480	16,000	1,597,734	24,810,785
2042	24,810,785	515,793	1,082,793	16,400	1,667,624	25,895,009
2043	25,895,009	518,059	1,116,998	16,810	1,740,269	27,019,530
2044	27,019,530	518,344	1,168,716	17,230	1,815,003	28,166,930
2045	28,166,930	516,730	1,233,719	17,661	1,890,784	29,323,065
2046	29,323,065	515,625	1,291,239	18,102	1,967,426	30,496,775
2047	30,496,775	516,421	1,357,337	18,555	2,045,039	31,682,343
2048	31,682,343	518,274	1,437,223	19,018	2,123,033	32,867,409
2049	32,867,409	520,085	1,498,365	19,494	2,201,617	34,071,252
2050	34,071,252	521,697	1,564,186	19,981	2,281,315	35,290,098
2051	35,290,098	524,019	1,627,869	20,481	2,362,128	36,527,896
2052	36,527,896	527,677	1,675,459	20,993	2,444,812	37,803,933
2053	37,803,933	532,170	1,721,127	21,518	2,530,188	39,123,646
2054	39,123,646	537,810	1,774,578	22,056	2,618,312	40,483,134
2055	40,483,134	544,794	1,844,404	22,607	2,708,637	41,869,554
2056	41,869,554	552,873	1,892,789	23,172	2,801,547	43,308,014
2057	43,308,014	561,963	1,905,883	23,751	2,899,209	44,839,551
2058	44,839,551	572,072	1,915,626	24,345	3,003,346	46,474,997
2059	46,474,997	583,016	1,937,968	24,954	3,114,155	48,209,246
2060	48,209,246	594,637	1,983,206	25,578	3,230,938	50,026,038
2061	50,026,038	607,018	2,003,739	26,217	3,354,186	51,957,286
2062	51,957,286	620,152	1,977,489	26,873	3,486,806	54,059,882
2063	54,059,882	633,980	1,953,665	27,544	3,631,020	56,343,673
2064	56,343,673	648,434	1,925,998	28,233	3,787,703	58,825,579
2065	58,825,579	663,369	1,881,490	28,939	3,958,437	61,536,956
2066	61,536,956	678,874	1,834,555	29,662	4,144,874	64,496,487
2067	64,496,487	695,031	1,784,915	30,404	4,348,298	67,724,497
2068	67,724,497	711,766	1,733,509	31,164	4,570,056	71,241,646
2069	71,241,646	729,075	1,680,575	31,943	4,811,545	75,069,748
2070	75,069,748	746,946	1,626,596	32,742	5,074,232	79,231,587
2071	79,231,587	765,362	1,571,793	33,560	5,359,658	83,751,254
2072	83,751,254	784,326	1,516,181	34,399	5,669,461	88,654,461
2073	88,654,461	803,802	1,460,133	35,259	6,005,376	93,968,247



Single Discount Rate Development

Projection of Plan Net Position

Ending December 31 for 2074 to 2123 (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)
2074	\$ 93,968,247	\$ 823,786	\$ 1,403,669	\$ 36,141	\$ 6,369,240	\$ 99,721,464
2075	99,721,464	844,276	1,346,709	37,044	6,763,019	105,945,006
2076	105,945,006	865,316	1,288,830	37,970	7,188,828	112,672,350
2077	112,672,350	886,919	1,229,801	38,920	7,648,952	119,939,499
2078	119,939,499	909,067	1,169,736	39,893	8,145,835	127,784,772
2079	127,784,772	931,766	1,108,653	40,890	8,682,082	136,249,076
2080	136,249,076	955,024	1,046,667	41,912	9,260,471	145,375,992
2081	145,375,992	978,878	983,607	42,960	9,883,973	155,212,276
2082	155,212,276	1,003,354	919,491	44,034	10,555,767	165,807,872
2083	165,807,872	1,028,439	854,800	45,135	11,279,233	177,215,609
2084	177,215,609	1,054,150	789,829	46,263	12,057,953	189,491,620
2085	189,491,620	1,080,509	724,932	47,420	12,895,735	202,695,513
2086	202,695,513	1,107,525	660,621	48,605	13,796,614	216,890,426
2087	216,890,426	1,135,215	597,336	49,820	14,764,870	232,143,355
2088	232,143,355	1,163,596	535,555	51,066	15,805,043	248,525,373
2089	248,525,373	1,192,684	475,773	52,342	16,921,949	266,111,891
2090	266,111,891	1,222,499	418,478	53,651	18,120,702	284,982,962
2091	284,982,962	1,253,058	364,190	54,992	19,406,727	305,223,565
2092	305,223,565	1,284,380	313,394	56,367	20,785,788	326,923,972
2093	326,923,972	1,316,485	266,415	57,776	22,264,013	350,180,280
2094	350,180,280	1,349,392	223,491	59,221	23,847,930	375,094,889
2095	375,094,889	1,383,121	184,825	60,701	25,544,495	401,776,979
2096	401,776,979	1,417,694	150,549	62,219	27,361,128	430,343,033
2097	430,343,033	1,453,131	120,719	63,774	29,305,751	460,917,422
2098	460,917,422	1,489,455	95,227	65,369	31,386,823	493,633,104
2099	493,633,104	1,526,687	73,819	67,003	33,613,396	528,632,364
2100	528,632,364	1,564,850	56,185	68,678	35,995,155	566,067,506
2101	566,067,506	1,603,968	41,951	70,395	38,542,472	606,101,600
2102	606,101,600	1,644,065	30,693	72,155	41,266,448	648,909,265
2103	648,909,265	1,685,165	21,981	73,959	44,178,975	694,677,465
2104	694,677,465	1,727,292	15,391	75,808	47,292,780	743,606,338
2105	743,606,338	1,770,474	10,526	77,703	50,621,487	795,910,070
2106	795,910,070	1,814,736	7,025	79,645	54,179,673	851,817,809
2107	851,817,809	1,860,104	4,571	81,636	57,982,932	911,574,638
2108	911,574,638	1,906,608	2,896	83,677	62,047,939	975,442,611
2109	975,442,611	1,954,274	1,786	85,769	66,392,522	1,043,701,853
2110	1,043,701,853	2,003,133	1,071	87,913	71,035,737	1,116,651,739
2111	1,116,651,739	2,053,213	625	90,111	75,997,945	1,194,612,161
2112	1,194,612,161	2,104,545	356	92,364	81,300,904	1,277,924,891
2113	1,277,924,891	2,157,160	197	94,673	86,967,857	1,366,955,038
2114	1,366,955,038	2,211,091	107	97,040	93,023,635	1,462,092,616
2115	1,462,092,616	2,266,371	57	99,466	99,494,759	1,563,754,224
2116	1,563,754,224	2,323,032	29	101,953	106,409,561	1,672,384,835
2117	1,672,384,835	2,381,109	15	104,502	113,798,300	1,788,459,726
2118	1,788,459,726	2,440,638	8	107,114	121,693,296	1,912,486,539
2119	1,912,486,539	2,501,656	4	109,792	130,129,070	2,045,007,470
2120	2,045,007,470	2,564,198	2	112,537	139,142,494	2,186,601,622
2121	2,186,601,622	2,628,304	1	115,350	148,772,946	2,337,887,521
2122	2,337,887,521	2,694,012	0	118,234	159,062,488	2,499,525,787
2123	2,499,525,787	2,761,363	0	121,190	170,056,043	2,672,222,003

Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31 for 2024 to 2073

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)]}
2024	\$ 10,543,115	\$ 779,638	\$ 779,638	\$ 0	\$ 754,410	\$ 0	\$ 754,410
2025	11,469,825	727,049	727,049	0	658,729	0	658,729
2026	12,064,193	736,358	736,358	0	624,685	0	624,685
2027	12,676,400	754,557	754,557	0	599,366	0	599,366
2028	13,300,304	773,832	773,832	0	575,541	0	575,541
2029	13,938,198	784,866	784,866	0	546,580	0	546,580
2030	14,601,979	800,098	800,098	0	521,711	0	521,711
2031	15,289,149	818,366	818,366	0	499,647	0	499,647
2032	15,998,065	838,125	838,125	0	479,130	0	479,130
2033	16,730,040	858,777	858,777	0	459,678	0	459,678
2034	17,486,730	878,576	878,576	0	440,333	0	440,333
2035	18,272,797	898,750	898,750	0	421,764	0	421,764
2036	19,090,866	916,647	916,647	0	402,774	0	402,774
2037	19,946,433	933,711	933,711	0	384,150	0	384,150
2038	20,844,235	953,102	953,102	0	367,161	0	367,161
2039	21,785,257	981,535	981,535	0	354,039	0	354,039
2040	22,763,681	1,020,846	1,020,846	0	344,774	0	344,774
2041	23,769,970	1,054,480	1,054,480	0	333,458	0	333,458
2042	24,810,785	1,082,793	1,082,793	0	320,610	0	320,610
2043	25,895,009	1,116,998	1,116,998	0	309,680	0	309,680
2044	27,019,530	1,168,716	1,168,716	0	303,388	0	303,388
2045	28,166,930	1,233,719	1,233,719	0	299,871	0	299,871
2046	29,323,065	1,291,239	1,291,239	0	293,869	0	293,869
2047	30,496,775	1,357,337	1,357,337	0	289,243	0	289,243
2048	31,682,343	1,437,223	1,437,223	0	286,766	0	286,766
2049	32,867,409	1,498,365	1,498,365	0	279,931	0	279,931
2050	34,071,252	1,564,186	1,564,186	0	273,621	0	273,621
2051	35,290,098	1,627,869	1,627,869	0	266,631	0	266,631
2052	36,527,896	1,675,459	1,675,459	0	256,953	0	256,953
2053	37,803,933	1,721,127	1,721,127	0	247,150	0	247,150
2054	39,123,646	1,774,578	1,774,578	0	238,601	0	238,601
2055	40,483,134	1,844,404	1,844,404	0	232,200	0	232,200
2056	41,869,554	1,892,789	1,892,789	0	223,119	0	223,119
2057	43,308,014	1,905,883	1,905,883	0	210,358	0	210,358
2058	44,839,551	1,915,626	1,915,626	0	197,971	0	197,971
2059	46,474,997	1,937,968	1,937,968	0	187,528	0	187,528
2060	48,209,246	1,983,206	1,983,206	0	179,687	0	179,687
2061	50,026,038	2,003,739	2,003,739	0	169,988	0	169,988
2062	51,957,286	1,977,489	1,977,489	0	157,080	0	157,080
2063	54,059,882	1,953,665	1,953,665	0	145,307	0	145,307
2064	56,343,673	1,925,998	1,925,998	0	134,128	0	134,128
2065	58,825,579	1,881,490	1,881,490	0	122,686	0	122,686
2066	61,536,956	1,834,555	1,834,555	0	112,009	0	112,009
2067	64,496,487	1,784,915	1,784,915	0	102,039	0	102,039
2068	67,724,497	1,733,509	1,733,509	0	92,791	0	92,791
2069	71,241,646	1,680,575	1,680,575	0	84,230	0	84,230
2070	75,069,748	1,626,596	1,626,596	0	76,334	0	76,334
2071	79,231,587	1,571,793	1,571,793	0	69,065	0	69,065
2072	83,751,254	1,516,181	1,516,181	0	62,380	0	62,380
2073	88,654,461	1,460,133	1,460,133	0	56,249	0	56,249



Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31 for 2074 to 2123 (concluded)

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))}
2074	\$ 93,968,247	\$ 1,403,669	\$ 1,403,669	\$ 0	\$ 50,631	\$ 0	\$ 50,631
2075	99,721,464	1,346,709	1,346,709	0	45,484	0	45,484
2076	105,945,006	1,288,830	1,288,830	0	40,757	0	40,757
2077	112,672,350	1,229,801	1,229,801	0	36,414	0	36,414
2078	119,939,499	1,169,736	1,169,736	0	32,431	0	32,431
2079	127,784,772	1,108,653	1,108,653	0	28,780	0	28,780
2080	136,249,076	1,046,667	1,046,667	0	25,441	0	25,441
2081	145,375,992	983,607	983,607	0	22,386	0	22,386
2082	155,212,276	919,491	919,491	0	19,594	0	19,594
2083	165,807,872	854,800	854,800	0	17,056	0	17,056
2084	177,215,609	789,829	789,829	0	14,756	0	14,756
2085	189,491,620	724,932	724,932	0	12,681	0	12,681
2086	202,695,513	660,621	660,621	0	10,821	0	10,821
2087	216,890,426	597,336	597,336	0	9,161	0	9,161
2088	232,143,355	535,555	535,555	0	7,691	0	7,691
2089	248,525,373	475,773	475,773	0	6,397	0	6,397
2090	266,111,891	418,478	418,478	0	5,268	0	5,268
2091	284,982,962	364,190	364,190	0	4,293	0	4,293
2092	305,223,565	313,394	313,394	0	3,459	0	3,459
2093	326,923,972	266,415	266,415	0	2,753	0	2,753
2094	350,180,280	223,491	223,491	0	2,163	0	2,163
2095	375,094,889	184,825	184,825	0	1,675	0	1,675
2096	401,776,979	150,549	150,549	0	1,277	0	1,277
2097	430,343,033	120,719	120,719	0	959	0	959
2098	460,917,422	95,227	95,227	0	708	0	708
2099	493,633,104	73,819	73,819	0	514	0	514
2100	528,632,364	56,185	56,185	0	366	0	366
2101	566,067,506	41,951	41,951	0	256	0	256
2102	606,101,600	30,693	30,693	0	175	0	175
2103	648,909,265	21,981	21,981	0	118	0	118
2104	694,677,465	15,391	15,391	0	77	0	77
2105	743,606,338	10,526	10,526	0	49	0	49
2106	795,910,070	7,025	7,025	0	31	0	31
2107	851,817,809	4,571	4,571	0	19	0	19
2108	911,574,638	2,896	2,896	0	11	0	11
2109	975,442,611	1,786	1,786	0	6	0	6
2110	1,043,701,853	1,071	1,071	0	4	0	4
2111	1,116,651,739	625	625	0	2	0	2
2112	1,194,612,161	356	356	0	1	0	1
2113	1,277,924,891	197	197	0	1	0	1
2114	1,366,955,038	107	107	0	0	0	0
2115	1,462,092,616	57	57	0	0	0	0
2116	1,563,754,224	29	29	0	0	0	0
2117	1,672,384,835	15	15	0	0	0	0
2118	1,788,459,726	8	8	0	0	0	0
2119	1,912,486,539	4	4	0	0	0	0
2120	2,045,007,470	2	2	0	0	0	0
2121	2,186,601,622	1	1	0	0	0	0
2122	2,337,887,521	0	0	0	0	0	0
2123	2,499,525,787	0	0	0	0	0	0
Totals					\$ 15,454,061	\$ 0	\$ 15,454,061



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.