



RETIREMENT SYSTEM

A Fiduciary Fund of the State of Wyoming

ANNUAL COMPREHENSIVE FINANCIAL REPORT For the Fiscal Year Ended December 31, 2021



Partnering to Build Financial Security For Members and their Families



VISION STATEMENT

Partnering to build financial security for members and their families

MISSION STATEMENT

Provide expert administration and responsible investment of Wyoming's public retirement and supplemental savings programs

VALUES

- Integrity
- Accountability
- Commitment
- Excellence

PHILOSOPHY

The Wyoming Retirement System Board and the Wyoming Retirement System staff are committed to:

- Carrying out all statutorily mandated and other responsibilities in a timely, courteous, professional and ethical manner.
- Safeguarding the financial integrity of the System through prudent management.
- Providing adequate member benefits for all plans within the parameters of actuarial funding.

Wyoming Retirement System

A Fiduciary Fund of the State of Wyoming

Annual Comprehensive Financial Report For the Fiscal Year Ended December 31, 2021

6101 Yellowstone Road, Suite 500
Cheyenne, Wyoming 82002
(307) 777-7691
retirement.wyo.gov

David Swindell, Executive Director
Mike Bleakley, Deputy Director
Andrea Odell, Finance Manager

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Annual Comprehensive Financial Report 2021

INTRODUCTORY SECTION



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Wyoming Retirement System

Partnering to Build Financial Security for Members and their Families

Letter of Transmittal

June 7, 2022

Wyoming Retirement Board
101 Yellowstone Road, Suite 500
Cheyenne, Wyoming 82001

Dear Board Members:

We are pleased to present the Annual Comprehensive Financial Report (Annual Report) of the Wyoming Retirement System (WRS) for the year ended December 31, 2021. The financial reporting entities of the WRS include the Public Employee Pension Plan; State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan; Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan; Paid Firemen's Pension Plans A and B; Judicial Pension Plan; Law Enforcement Pension Plan; Air Guard Firefighter Pension Plan and the 457 Deferred Compensation Plan.

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the WRS Management. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the net position of each plan and the combined changes in the net position of the WRS for the year ended December 31, 2021. All disclosures necessary to enable the reader to gain an understanding of the WRS's financial activities have been included.

The Wyoming Retirement System and Wyoming Deferred Compensation Program were established by legislation and authorized as indicated in the notes to the financial statements. The purpose of the Wyoming Retirement System is to provide administration of eight defined benefit retirement plans and act as Plan Sponsor to the Wyoming Deferred Compensation Program.

The financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis as agreed upon by the Governmental Accounting Standards Board (GASB). Financial information presented throughout this Annual Report is consistent with the financial statements.

Financial Information

The Wyoming Retirement System's transactions are reported on the accrual basis of accounting. Contributions are recognized as revenue when due pursuant to formal commitments as well as statutory and contractual requirements. Expenses are recognized when the corresponding liabilities are incurred.

WRS Management is responsible for establishing and maintaining the system of internal controls. This system of internal controls provides management with reasonable, but not absolute, assurance regarding the safeguarding of assets against loss or unauthorized disposition and the reliability of the financial records from which the financial reports are prepared. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived; and (2) the valuation of costs and benefits requires estimates and judgments by management. Discussion and analysis of net position and related additions and deductions is presented in the Management's Discussion and Analysis (MD&A) in the Financial Section of this report.

Letter of Transmittal

Plan Financial Condition

The funding objective of the WRS pension funds is to meet long-term benefit requirements through contributions, which remain relatively level as a percent of member payroll over time, and through investment earnings. Historical information concerning funding progress is presented as a schedule in the Actuarial section of the Annual Report.

Net Pension Liability

The Wyoming Retirement System completes an actuarial evaluation annually to calculate the funded status of each of the eight defined benefit plans administered by the system. The 2021 Evaluation was performed by Gabriel Roeder Smith & Company (GRS). They performed two evaluations for each plan. The actuarial funding reports provide information useful for making long-term funding and contribution decisions. The GASB 67/68 reports provide information for accounting purposes. As of January 1, 2022, the Actuarial Funded Ratio for eight plans administered by WRS was as follows:

Pension Plan	Actuarial Funding Ratio	GASB 67 Accounting Ratio
Public Employee	77.04%	86.03%
State Patrol, Game & Fish Warden and Criminal Investigator	81.33%	90.66%
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue	81.30%	89.62%
Paid Firemen's A	41.98%	42.90%
Paid Firemen's B	97.06%	107.43%
Judicial	98.18%	107.47%
Law Enforcement	84.67%	75.62%
Air Guard Firefighter	82.11%	97.27%

A Schedule of Funding Progress is included within the Actuarial Section. The net pension liability of each plan is reviewed annually. The statutes governing the Wyoming Retirement System's plan requires that the unfunded liabilities be financed systematically over future years.

Investments

The defined benefit plan assets of the WRS are held at Northern Trust, which acts as custodian of all investments, except for those assets held by the treasurer of the State of Wyoming and the 457 Plan. Northern Trust also administers a securities lending program on behalf of the WRS. Daily, Northern Trust provides WRS with detailed accounting reports, which include all trades, receipt of income and accrual information. On December 31, 2021, the net position for all eight defined benefit plans totaled \$10.92 billion, which represents a 13.21% increase from the \$9.64 billion held on December 31, 2020.

Management retains a professional investment consultant who reports quarterly the investment returns by manager and provides recommendations regarding the managers' and portfolio holdings. The investment consultant, Meketa Investment Group, Inc. (Meketa), provides the Board with a measure of how well each of the investment managers perform relative to their benchmarks and peers. WRS's internal investment team includes a Chief Investment Officer, three Senior Investment Officers, one Investment Officer, one Senior Investment Analyst, one Investment Analyst and one Investment Accountant. Investment activities are monitored by both internal and external auditors for compliance with WRS's Investment Policy Statement (IPS).

An integral part of any investment policy is strategic asset allocation. This asset mix is designed to maximize investment returns while minimizing risk through optimum portfolio diversification. The Board's approved target allocation is outlined in Note 3 to the Basic Financial Statements. For calendar year 2021, the annual return of funds for seven of the eight pension plans was 17.19%, net of fees. The Paid Firemen's Pension Plan A annual return was -0.45% due to its separate investment in a more conservative fixed income strategy.

The Financial Section and Investment Section contain more detailed analysis and information.

Professional Services

Professional consultants are retained to perform services essential to the efficient operation of the WRS. State statutes require an annual audit be performed either by the State Audit Department or by an independent auditor. The accounting firm of Eide Bailly, performed the annual audit. The auditor's report on the basic financial statements is included in the Financial Section of this report.

The actuarial valuations provide a means by which to measure at a point in time for each retirement plan's assets, as well as liabilities and the impact on those liabilities proposed plan modifications may have. Reports from the WRS's actuary, Gabriel Roeder Smith & Company (GRS) are included in this report.

Operations and Activities

The top priorities for 2021 included customer service and issuing member payments. Operations changed to issue member refund payments on a weekly basis from twice a month payments. The pension administration software system (Retirement Administration and Investment Network or RAIN) moved to a web application from a Windows application in November 2021. RAIN will continue to be enhanced during the next few years. In addition, a campaign was launched to urge WRS members to designate beneficiaries.

Pension operations continued to provide a high level of service to members and posted the following statistical indicators:

- Processed 1,739 new retirement applications
- Processed 1,433 refund applications
- Answered approximately 20,362 phone calls
- Deposited \$393.3 million dollars in employee, employer and other contributions
- Issued \$717.4 million dollars in retirement benefits to approximately 34,240 pensioners across eight retirement plans

Awards and Acknowledgments

The WRS submitted its 2020 report to the Government Finance Officers Association (GFOA) to be considered for a Certificate of Achievement for Excellence in Financial Reporting. We are pleased to announce that the WRS was notified of its selection for the certificate of achievement for its annual comprehensive financial report for the fiscal year ended December 31, 2020. This was the twenty-eighth (28th) consecutive year that WRS has achieved this prestigious award. The Certificate of Achievement for Excellence in Financial Reporting is the highest form of recognition in the area of public employee retirement system accounting and financial reporting.

We express our thanks and appreciation to all stakeholders including our members, affiliated employers and to the various employee organizations and associations for their continued cooperation and support.

We also wish to express our special thanks and appreciation to WRS staff, members of the pension plans, the WRS Board of Trustees, Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Board of Trustees, our consultants and other associates whose diligence and commitment have contributed significantly to another year of accomplishment for the WRS.

Finally, we wish to thank the Governor and the Legislature for their commitment to the financial integrity of Wyoming's public employee retirement systems. The foresight and support exhibited consistently by the Governor and members of the Legislature are both critically important and commendable.

Sincerely,



Andrea Odell
Finance Manager



Mike Bleakley
Deputy Director



David Swindell
Executive Director



Wyoming Retirement System

Partnering to Build Financial Security for Members and their Families



Tom Chapman
WRS Board Chair

June 7, 2022

Dear Members, Benefit Recipients, and Employers:

On behalf of the Board of Trustees, I am pleased to present the Wyoming Retirement System (WRS) Annual Comprehensive Financial Report (ACFR) for the fiscal year ending December 31, 2021. This report provides a detailed view of the financial and actuarial status of your retirement system. The Financial Section of the report is prepared in accordance with generally accepted accounting principles and includes financial statements that are attested to by WRS's independent auditors. Additionally, I want to comment on some of the other objectives of WRS, which are integral to the successful operation of the system.

Board Composition

During 2021 we did not have any changes to the WRS Board membership. However, subsequent to our financial year-end, we regretfully accepted the resignation of Trustee Kay Watson. Kay has been an outstanding trustee, and we will miss her contributions. We are grateful for her service. Last month, Governor Gordon appointed Mr. Jeremy Smith as Kay's replacement, representing the education community. Mr. Smith is the business manager for Sheridan County School District #1 in Ranchester. We look forward to welcoming him to the Board and thank all of our board members for their volunteerism, leadership, and altruism.

The WRS Board is assisted by the Volunteer Firefighter, EMT, and Search & Rescue Pension Plan Board, that has oversight over that plan. We were saddened by the loss of volunteer board member Alan Sessions of Afton, who passed away in August 2021. Alan served with the Afton Volunteer Fire Department for 37 years and has served on the Board since 2005. Governor Gordon subsequently appointed Afton Fire Chief Dennis McDonald to fill the vacancy. We welcome Chief McDonald to the Volunteer Pension Plan Board.

Pension Contribution

This ACFR shows that WRS issued pension benefits totaling more than \$717 million during 2021 – about \$60 million every month. WRS has retirees across the globe, but 79% of these payments go to Wyoming zip codes. Wherever they go, these benefits stabilize members' families and communities. Our reliable pension payments have always done this, but in the pandemic that continued into 2021, it mattered even more.

All this happens with a remarkable value to the taxpayer. Only 30% of the benefits paid come from contributions, either from the employee or the employer, while 70% comes from investment earnings.

Investments

Investment markets recovered and delivered strong performances during 2021. Markets have been volatile during the pandemic, but our relatively defensive posture, global diversification, and prudent adjustments have moderated our experience. The investment team found good assets at good prices. While time will tell what 2022 investment returns will ultimately be, 2021 wound up being a very good year with a gain of 17.2%.

Our target is to achieve a 6.8% investment return, and the last three years have contributed positively with average returns of over 15.6% per year. While 2022 has been challenging, WRS is invested for the long run, and our investment philosophy reflects this point.

It is also instructive to note the importance of professional management in both up and down markets. Our 2021 investment result of 17.2% exceeded our blended strategic benchmark of 14.6%. The WRS portfolio performance ranked in the 14th percentile for 2021 as measured against its peer group, as noted in the Investment Section of this report. Professional and stable management is essential in volatile markets.

Legislation

The 2022 legislative session ultimately resulted in only one new law affecting WRS. SF0039 (Fireman's pension plan benefits or "Fire A") provided a robust long-term solution to the funding problems in the Paid Fire A pension plan. This plan was on an unsustainable path, with insolvency predicted in about five (5) years. As a result, last year, the Board placed the remaining Fire A assets in a more stable fixed-income investment. Earlier this year, a bill was introduced and eventually passed by the Legislature to solve this funding issue. The bill required concessions amongst all the stakeholders, and the Board is appreciative of that. The Board appreciates the efforts of the

Legislature to take on this difficult issue and bring it to a resolution. The Fire A assets were returned to the diversified investment portfolio along with all the other pension plans as soon as the bill became effective on April 1, 2022.

The Board continues to advocate for a Cost of Living Allowance (COLA). While COLA suspension was necessary in the wake of the financial crisis, the ongoing lack of a COLA imposes increasing hardship on many retirees. We continue to work with constituents to find potential options for the Legislature to consider.

Actuarial

During the past year, the Board decreased the assumed rate of future investment returns from 7.0% to 6.8%. This decrease follows a pattern over the past decade; in 2012, the assumption was 8.0%. As interest rates declined, realistic assumptions about future returns also needed to decline. Such moves put additional pressure on benefits and contribution rates but remove some risk from the system.

In 2021 all eight plans realized greater than assumed investment returns. The large Public Employee Plan (or the "Big Plan") actuarial funding ratio increased to 77.0% from 74.8% last year. The accounting standards used in this report utilize market value for investment returns. On a market value basis, the funded ratio for the Big Plan increased to 86.0%, from 79.2% last year. The funding ratios for most of the other plans also increased slightly on an actuarial basis and increased more on a market value basis. WRS actuarial returns are smoothed over five (5) years which moderates volatility compared to market value reporting.

While the current actuarial position is important, the actuarial direction is even more important. Our overall direction remains positive over the long run, helped by 2021's good investment returns. All the plans are on track to improve to above 100% funding within 20 years, with the exception of the Law Enforcement Plan, which remains in the low 90% range.

Oversight

Exceptional customer service remains a high priority at the Wyoming Retirement System. We continue to refine and improve RAIN, our pension administration system. A new version was introduced in the fall of 2021, which improved encryption security and processing speed. WRS continues to make investments in the RAIN system to enhance our ability to deliver top-tier customer service for years to come.

Our eleven-person Board continues to operate well. The Board prides itself on its professionalism, the non-partisan nature of its deliberations, and informed decision-making. The Board is a dedicated, knowledgeable group of trustees, each of whom takes their fiduciary duty seriously. I have no doubt the future of WRS is bright.

Since 1953, we have endeavored to provide excellence in the administration of the public retirement plans entrusted to us. We've provided retirement security to generations of public servants. We remain committed to ensuring that we can deliver on the retirement promises made to members as a part of their public service.

If you have any questions or suggestions regarding this report or any other aspect of WRS, please contact us at the Wyoming Retirement System, 6101 Yellowstone Road, Suite 500, Cheyenne, Wyoming, 82002, or call us at (307) 777-7691. Our website is retirement.wyo.gov.

Sincerely,



Tom Chapman, Chair
Board of Trustees

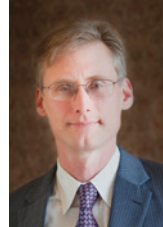
Wyoming Retirement System Board

The responsibility for the administration and operation of the Wyoming Retirement System, including all pension plans (except the Volunteer Firefighter & EMT Plan) and the Deferred Compensation (457) Plan is vested in the Wyoming Retirement Board. The Board is composed of eleven members, ten appointed by the Governor and the eleventh being the State Treasurer. The representation consists of the following:

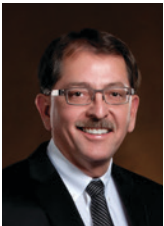
- The State Treasurer
- A retired recipient of the Retirement System
- Two public employees
- Two public employees of the public school system, the University of Wyoming or Community College System
- Five qualified electors from Wyoming known for their public spirit and business or professional ability and at least two of whom have professional expertise in investments and finance



Tom Chapman(Board Chair)
Jackson, WY
At Large
First Appointed: 2010
Current Term Expires: 2027



Eric Nelson (Vice Chair)
Casper, WY
Public Employees (City/County)
First Appointed: 2015
Current Term Expires: 2023



Mike Ceballos
Cheyenne, WY
Public Employees (State)
First Appointed: 2015
Current Term Expires: 2023



Paul O'Brien
Jackson, WY
At Large
First Appointed: 2020
Current Term Expires: 2023



Vicci Colgan
Cheyenne, WY
Retiree
First Appointed: 2015
Current Term Expires: 2027



Tim Sullivan
Laramie, WY
At Large
First Appointed: 2013
Current Term Expires: 2025



Robert Leibrich
Sheridan, WY
At Large
First Appointed: 2021
Current Term Expires: 2027



Dr. Lesley Travers
Torrington, WY
Higher Education
First Appointed: 2021
Current Term Expires: 2023



John Lummis
Jackson, WY
At Large
First Appointed: 2021
Current Term Expires: 2027



Kay Watson
Shoshoni, WY
School Employees
First Appointed: 2016
Current Term Expires: 2025



Curt Meier
(Board Member - State Treasurer)
Cheyenne/La Grange, WY
Elected Official

Volunteer Firefighter, EMT and Search & Rescue Pension Board

The Volunteer Firefighter, Emergency Medical Technicians (EMT) and Search & Rescue Pension Plan is controlled by a separate board and administered by the Executive Director of the Wyoming Retirement System. The Board consists of six volunteer firefighters, one volunteer EMT and one volunteer Search & Rescue volunteer, who shall be appointed by the Governor for staggered terms of three years. Each member is a volunteer firefighter, EMT or Search & Rescue volunteer with a minimum of five years as a member of a volunteer fire, EMT department or volunteer Search & Rescue service in the State of Wyoming.



Gene Diedtrich (Chairman)
Newcastle, WY
Represents Fire
First Appointed: 1987
Current Term Expires: 2023



Lanny Applegate (Vice Chair)
Cheyenne, WY
Represents Fire
First Appointed: 2000
Current Term Expires: 2024



Clint Becker
Douglas, WY
Represents Search & Rescue
First Appointed: 2019
Current Term Expires: 2022



Jerry Munger
Wheatland, WY
Represents Fire
First Appointed: 2000
Current Term Expires: 2022



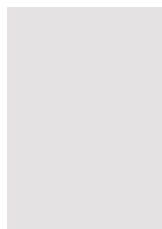
Tracy Brown
Lingle, WY
Fire
First Appointed: 2010
Current Term Expires: 2024



Eric Quinney
Evanston, WY
Represents EMT
First Appointed: 2014
Current Term Expires: 2024



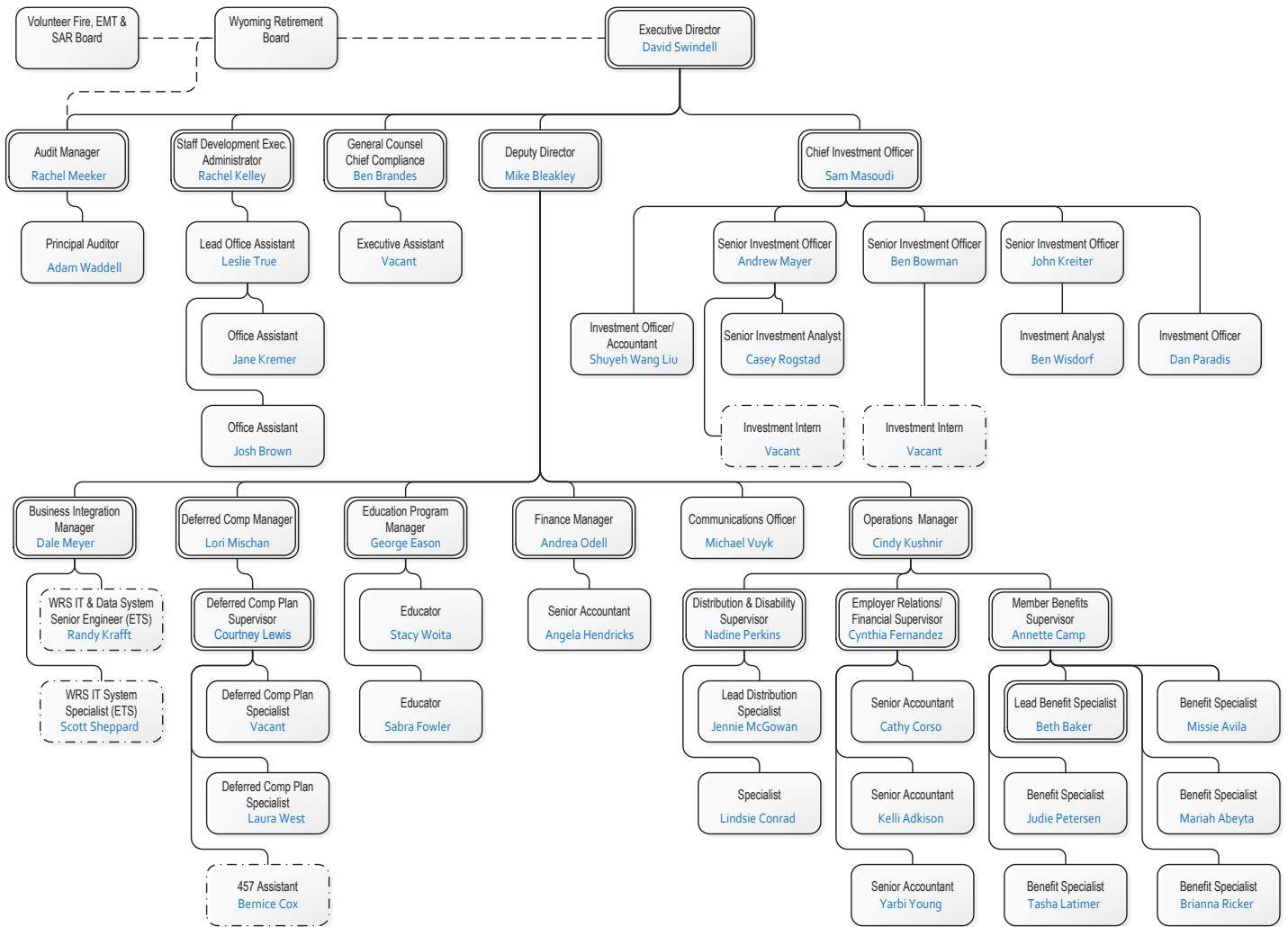
Kim Lee
Riverton, WY
Fire
First Appointed: 2000
Current Term Expires: 2022



Vacant
Fire
First Appointed:
Current Term Expires:

Board Changes and Organizational Chart

Organizational Chart:



Actuary:

Gabriel Roeder Smith & Company (GRS)
Irving, TX

Auditor:

Eide Bailly, LLP
Boise, ID

Master Custodian:

The Northern Trust Company
Chicago, IL

Investment Consultant:

Meketa Investment Group
Boston, MA

Alternative Investment Consultant:

Albourne America
San Francisco, CA

Deferred Compensation Plan Investment and Performance Consultant:

RVK, Inc.
Portland, OR

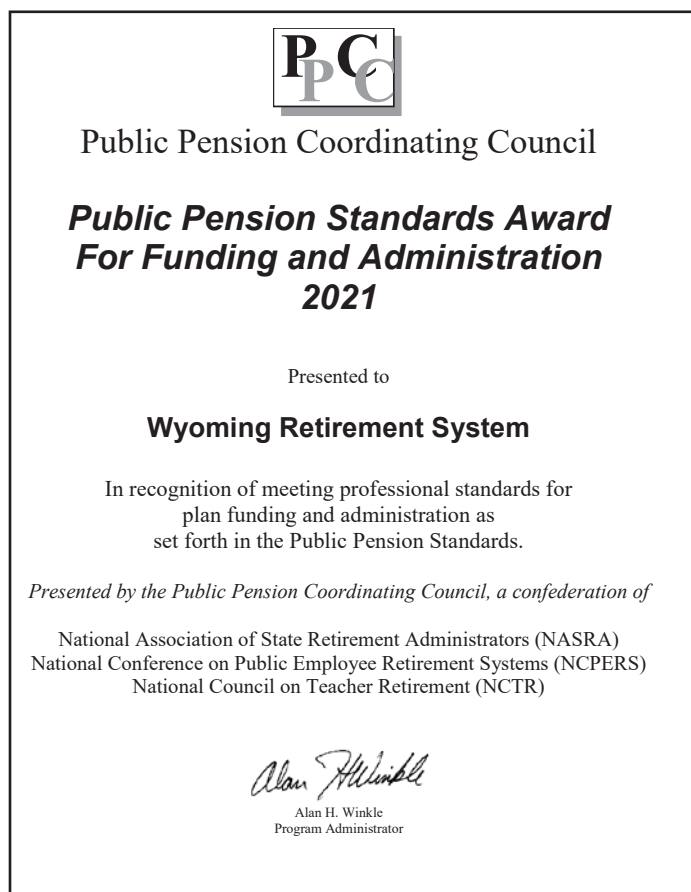
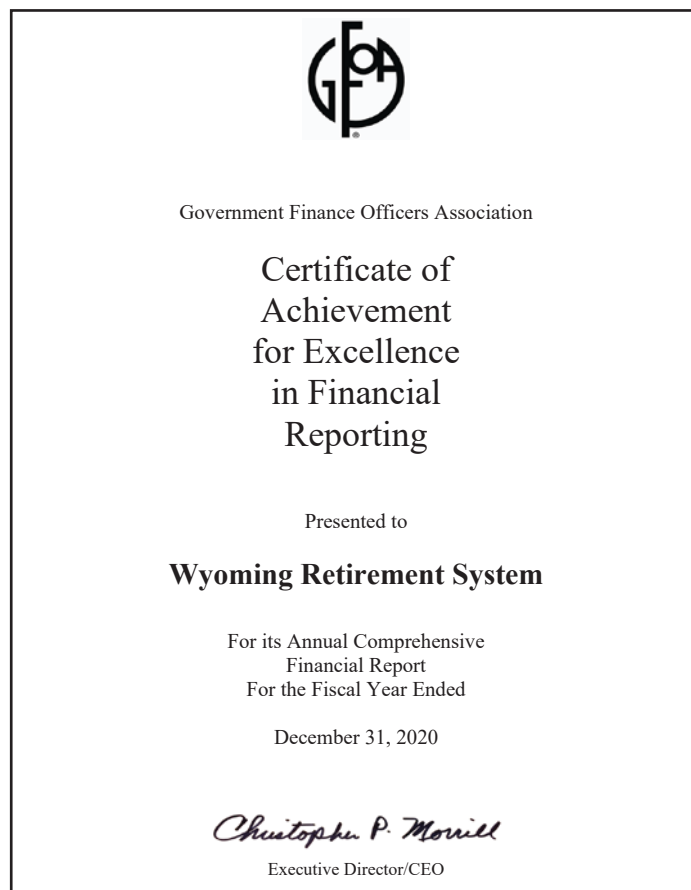
Deferred Compensation Plan Record Keeper:

Empower Retirement
Greenwood Village, CO

Investment Managers:

A complete listing of the investment professionals providing services for the Wyoming Retirement System is available in the Investment Section starting on page 83 and detailed by asset class. A schedule of fees is located on page 100.

Professional Awards



Plan Overview

The Wyoming Retirement System administers eight defined benefit pension plans and one 457 deferred compensation plan:

Pension Plan	Contributions	Vesting Service	Eligibility for Full Retirement	Multiplier	Highest Avg Salary
Public Employees Tier 1 (First contribution before 9/1/2012)	18.62% of salary: Employee = 9.25% Employer = 9.37%	48 months	• Age 60 with 4 yrs service, or • Upon meeting requirements of the "Rule of 85" (age + years of service equal or exceed 85)	2.125% for first 15 yrs of service, plus 2.25% for remaining yrs	36 continuous months
Public Employees Tier 2 (First contribution on or after 9/1/2012)			• Age 65 with 4 yrs service, or • Upon meeting requirements of the "Rule of 85" (age + years of service equal or exceed 85)	2% for all yrs of service	60 continuous months
The employer contribution for Park Rangers in Public Employee Plan Tier 1 or 2 is 1% greater than the amount shown.					
State Patrol, Warden and Criminal Investigator	29.44% of salary: Employee = 14.56% Employer = 14.88%	72 months	• Age 50 with 6 yrs service	2.5% for all yrs of service 75% ceiling	36 continuous months
Law Enforcement	17.20% of salary: Employee = 8.60% Employer = 8.60%	48 months	• Age 60 with 4 yrs service, or • Any age with 20 yrs service	2.5% for all yrs of service 75% ceiling	60 continuous months
Judicial	23.72% of salary: Employee = 9.22% Employer = 14.5%	48 months	• Age 60 with at least 20 yrs service, or • Age 65 with 4 yrs service, or • Age 70 with continuous service	4% for first 5 yrs of service + 3% for yrs 6-15 + 2% for yrs 16-20 + 1% for yrs 21 or more	36 continuous months
Paid Fire A	None	120 months	• 20th anniversary of date of employment	75% of Firemen 1st Class's salary for first 20 yrs + 1.5% of salary for 21+ yrs	n/a
Paid Fire B	25.745% of salary ¹ : Employee = 10.745% Employer = 15.00%	48 months	• Age 50 with 4 yrs service	2.8% for first 25 yrs of service. 70% ceiling	36 continuous months
2022 Employee = 11.245% Employer = 16.000% Total Contribution 27.245% of salary					
Volunteer Firefighter, EMT and Search & Rescue	Vol. Firefighter and EMT = \$18.75 per month Search & Rescue = \$37.50 per month	60 months	• Age 60 with 5 yrs service	\$16/mo per year of service for the first 10 years of service, plus \$19/mo per year of service over 10 yrs	n/a
Air Guard Firefighter	23.77% of salary: Employee = 16.65% Employer = 7.12%	48 months	• Age 60 with 4 yrs service, or • Age 50 with 25 yrs service, or • At least age 55 & meeting requirements of "Rule of 75" (age + years of service equal or exceed 75)	2.5% for all yrs of service	36 continuous months

Further plan details are available in the Notes to the Financial Statements in this report. Plan details, a history of contribution rates and major changes to plans, and governing statutes, rules and policies that apply to WRS retirement plans are also available at retirement.wyo.gov.

- Wyoming Retirement Act:
Wyo. Stat. § 9-3-401 -
Wyo. Stat. § 9-3-432
 - Uniform Management of Public Employees Retirement Act:
Wyo. Stat. § 9-3-433 -
Wyo. Stat. § 9-3-454
 - Deferred Compensation Program:
Wyo. Stat. § 9-3-501
Wyo. Stat. § 9-3-509
 - State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement:
Wyo. Stat. § 9-3-601 -
Wyo. Stat. § 9-3-620
 - Judicial Retirement:
Wyo. Stat. § 9-3-701 - Wyo. Stat. § 9-3-713
 - Firemen Pensions and Death Benefits (Plan A): Wyo. Stat. § 15-5-201 -
Wyo. Stat. § 15-5-210
 - Firemen's Pension Account Reform Act of 1981 (Plan B): Wyo. Stat. § 15-5-401 -
Wyo. Stat. § 15-5-422
 - Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan: Wyo. Stat. § 35-9-616 - 35-9-628
 - Policemen Pensions and Death Benefits:
Wyo. Stat. § 15-5-301 -
Wyo. Stat. § 15-5-314
 - Higher Education Retirement:
Wyo. Stat. § 21-19-101 -
Wyo. Stat. § 21-19-106
 - Public Meetings Act
Wyo. Stat. § 16-4-401 -
Wyo. Stat. § 16-4-408
 - Wyoming Retirement Board Rules
 - Volunteer Firefighter, Emergency Medical Technician and Search & Rescue Pension Account Board Rules
 - Wyoming Retirement System Board Policy Manual
 - Deferred Compensation 457(b) Plan Document
- ¹ Effective July 1, 2022 Rates will increase to 27.245% (Employee 11.245% - Employer 16.00%).



Annual Comprehensive Financial Report 2021

FINANCIAL SECTION



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Independent Auditor's Report

To the Board of Trustees
Wyoming Retirement System
Cheyenne, Wyoming

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the Wyoming Retirement System (WRS), which comprise the statement of fiduciary net position as of December 31, 2021, and the related statement of changes in fiduciary net position, for the year then ended, and the related notes to the financial statements, which collectively comprise WRS's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective fiduciary net position of the WRS, as of December 31, 2021, and the respective changes in fiduciary net position, for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of WRS and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matters

As discussed in Note 3, the financial statements include investments valued at \$3,043,169,452 (27.87% of net position) as of December 31, 2021, whose carrying values have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or the general partners. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

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Independent Auditor's Report

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the WRS's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of WRS's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about WRS's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in net pension liability and the related ratios – multiyear, schedule of investment returns, and schedule of contributions multiyear (collectively the required supplementary information) on pages 18-31 and 64-75 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency

with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the WRS's basic financial statements. The other supplementary information is presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investment, actuarial and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated June 21, 2022 on our consideration of the WRS's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of WRS's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering WRS's internal control over financial reporting and compliance.



Boise, Idaho
June 21, 2022

Management's Discussion and Analysis

Management's Discussion and Analysis

This section presents management's discussion and analysis of the Wyoming Retirement System's (WRS) financial status and performance for the year ended December 31, 2021.

WRS is responsible for administering retirement benefits for eight defined benefit pension plans and one defined contribution plan. The eight defined benefit plans are the Public Employee Pension Plan, State Patrol, Game & Fish Warden and Criminal Investigator Pension Plan, Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan, Paid Firemen's Pension Plan A, Paid Firemen's Pension Plan B, Judicial Pension Plan, Law Enforcement Pension Plan and the Air Guard Firefighter Pension Plan. The defined contribution plan is also known as the Wyoming Deferred Compensation Program (457 Plan).

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the WRS financial reporting, which is comprised of the following components:

1. Basic Financial Statements including Statement of Fiduciary Net Position - Pension (and Other Employee Benefit) Funds, Statement of Changes in Fiduciary Net Position - Pension (And Other Employee Benefit) Funds, and Notes to the Basic Financial Statements
2. Required Supplementary Information
3. Other Supplementary Information

Collectively, this information presents the combined net position restricted for pension benefits for each of the funds administered by WRS and the 457 Plan sponsored by WRS as of December 31, 2021. This financial information also summarizes the combined changes in net position restricted for pension and defined contribution benefits for the year then ended. The information in each of these components is briefly summarized as follows:

1. Basic Financial Statements. For the calendar year ended December 31, 2021, basic financial statements are presented for the retirement funds administered and sponsored by WRS. Fiduciary funds are used to account for resources held for the benefit of parties outside WRS. These fiduciary funds are comprised of eight defined benefit systems and one 457 Plan.
 - The Statement of Fiduciary Net Position - Pension (and Other Employee Benefit) Funds is presented for the pension and defined contribution funds at December 31, 2021. This financial statement reflects the resources available to pay benefits to members, including retirees and beneficiaries.
 - The Statement of Changes in Fiduciary Net Position - Pension (and Other Employee Benefit) Funds is presented for the pension and the defined contribution funds for the year ended December 31, 2021. This financial statement reflects the changes in the resources available to pay benefits to members, including retirees and beneficiaries for the calendar year 2021.
 - Notes to the Basic Financial Statements. The Notes to the Basic Financial Statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements.
2. Required Supplementary Information. The required supplementary information consists of schedules concerning the net pension liability and changes therein, schedule of investment returns and actuarially determined contribution requirements.
3. Other Supplementary Information. This section includes the Schedule of Administrative Expenses and Investment Advisory Fees for all of the retirement plans, and for the 457 Plan, the Combining Schedule of Participant and Administrative Net Position, and the Combining Schedule of Changes in Participant and Administrative Net Position.

Management's Discussion and Analysis

Financial Analysis of Defined Benefit Plans

Investments of seven of the WRS Defined Benefit Plans are combined in a commingled investment pool. Each plan owns an equity position in the pool and receives proportionate investment income from the pool in accordance with respective ownership percentages. Each plan's allocated share of each investment type in the pool is shown in the Statement of Fiduciary Net Position for the individual plan. Investment gains or losses are reported in the Statement of Changes in Fiduciary Net Position for each retirement plan. The rate of return on investment is therefore approximately the same for each of the seven plans. The exception is the Paid Firemen's Pension Plan A. The assets for this plan were allocated separately to a more conservative fixed income strategy as of January 1, 2021 to protect the declining assets.

System's Total Investment Assets

At December 31, 2021, WRS held total investment assets of \$10.8 billion. The combined investment portfolio experienced a return of 17.19% (net of fees) compared with the WRS Benchmark of 14.57%. The benchmark represents what would have occurred if WRS had invested in the following asset classes with the corresponding weights derived from the Board's approved strategic asset allocation. The Paid Firemen's Pension Plan A experienced a loss of -0.45% (net of fees) as of December 31, 2021.

Investment results over time compared with WRS benchmarks are presented in the Investment Section of this annual report. The figures listed below are the net exposures in each asset class after accounting for the notional exposure differences through the Russell Overlay account. Physical exposures could be quite different depending on the notional exposure held through the overlay account.

Tactical Cash

On December 31, 2021, WRS held \$394 million in Cash, which was an increase from the \$8.5 million in Tactical Cash at the end of December 31, 2020. The change in cash is a function of timing decisions made by WRS staff at year-end and is utilized within the Overlay Program to manage portfolio level asset class exposures.

Equities

On December 31, 2021, WRS held \$5.1 billion in Total Equity, compared to the \$4.6 billion held the prior year end. Total equities consist of marketable securities across Domestic, International Developed, and Emerging Market equity securities, as well as Private Equity. Total Equity had a return of 24.25% for the year 2021 compared to 19.96% for the benchmark.

As of December 31, 2021, the Total Equity blended benchmarks consist of 39.2% Russell 3000 Total Return Index, 26.2% MSCI EAFE IMI, Net Dividend (65% hedged), 16.1% MSCI EM IMI, and 18.6% Cambridge Associates Global All Private Equity (quarter lagged).

Fixed Income Securities

On December 31, 2021, WRS held \$2.3 billion in Total Fixed Income securities, which was lower than the \$2.4 billion in Fixed Income securities held at December 31, 2020. Total Fixed Income includes securities such as U.S. Treasury Bonds and Notes, Mortgage-Backed Securities, Corporate Bonds and Private Debt. In total, Fixed Income had a return of 6.10% for the year 2021 compared to the customized benchmark's return of 2.42%.

As of December 31, 2021, the blended benchmark for Total Fixed Income consists of 23.8% Bloomberg Barclays U.S. Aggregate, 42.9% Bloomberg Barclays Government, 19.0% that is a 50/50 blend of Credit Suisse Leveraged Loan index and Bloomberg Barclays High Yield index, and 14.3% Cambridge Associates Vintage Year Blend (quarter lagged).

Marketable Alternatives

On December 31, 2021, WRS held \$1.9 billion within the Marketable Alternatives asset class, which was higher than the \$1.7 billion in Marketable Alternatives held at December 31, 2020. This asset class returned 11.08% for the year, compared to a return of 6.05% for the benchmark, which consists of the HFRI Fund of Funds Composite Index.

Private Real Assets

On December 31, 2021, WRS held \$1.1 billion in managers considered to employ Private Real Asset strategies, an increase from \$883 million on December 31, 2020. Private Real Assets include such categories as real estate, infrastructure, and natural resources. In total, the Private Real Asset class returned 31.39% for the year, compared to a vintage year blended benchmark return of 29.41%.

Management’s Discussion and Analysis

Investment allocation at Fair Value as of December 31, 2020 and 2021:

Asset Allocation By Sector	2020		2021	
	Physical Securities	With Overlay	Physical Securities	With Overlay
Tactical Cash	1.62%	0.09%	4.72%	3.65%
Fixed Income	21.31%	25.01%	18.49%	20.86%
Equity	49.79%	47.63%	48.63%	47.34%
Marketable Alternatives	18.12%	18.12%	17.62%	17.62%
Private Real Assets (formerly “Private Markets”)	9.16%	9.16%	10.54%	10.53%

Note: Positions with overlay are included to provide a more realistic disclosure of exposures.

Security Lending

WRS earns additional investment income by lending investment securities to brokers. Northern Trust, WRS’s custodian bank, does this on a pooled basis. The brokers provide collateral to the custodian bank and generally use the borrowed securities to cover short sales and failed trades. The custodian bank invests the cash collateral received from the brokers in order to earn interest. On December 31, 2021, the plans had \$577.2 million on loan secured by \$590.6 million in collateral. In addition, the securities collateralized by cash, securities valued at \$99.0 million were on loan collateralized by non-cash collateral in the amount of \$101.7 million. For the year 2021, net securities lending income for all plans totaled approximately \$1.0 million as compared to the year 2020, it totaled approximately \$2.2 million.

Actuarial Valuation and Funding Progress

An actuarial valuation of each WRS defined benefit plan is performed annually. The funded status of each plan is shown in the Schedules of Funding Progress, which is located in the Actuarial section of this report. It is important to note that in November 2021 and also in February 2022, the Board changed the assumptions used by the actuary to value the plans. The new assumptions are reflected in these valuation results. In general, the new assumptions reflect an update to the mortality tables, adjustments to the demographic and salary scale, as well as a lower long-term investment return. Funding ratios according to GASB 67 standards range from a high of 107.47% to a low of 42.90%. The Schedules of Funding Progress show the January 1, 2022 funding ratios compared with the ratios at January 1 of the prior 10 years. The section also shows the amount by which actuarial assets fell short of actuarial liabilities. At January 1, 2022, the actuarial value of liabilities exceeded the actuarial value of assets by \$2.8 billion.

For all plans except the Paid Firemen’s Pension Plan A, beginning July 1, 2012 all future COLA’s must be granted by the State Legislators. In addition, the board cannot recommend the COLA unless the plan is considered actuarially sound and the unfunded liability must not drop below 100% after the award of the COLA.

It is important to note the significant drop in the funding ratios for the Paid Firemen’s Pension Plan A resulted from the WRS Board’s decision to reallocate the assets to a more conservative fixed income strategy. Therefore, as of January 1, 2021, the expected rate of return on assets for the Paid Firemen’s Pension Plan A was lowered from 7.00% to 1.00%.

Management's Discussion and Analysis - Analysis of Individual Plans

Public Employee Pension Plan

The Public Employee Pension Plan provides retirement benefits to covered State of Wyoming, local government and public education employees. Employee and employer contributions and earnings on investments fund benefits of the Plan.

The Plan's net position held in trust for benefits on December 31, 2021 totaled almost \$9.4 billion, an increase of about \$1.1 billion from 2020. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment gains. For the calendar year 2021, employee and employer contributions totaled \$334.8 million, an increase from 2020 of approximately \$9.2 million. Contributions to the Plan increased on July 1, 2021 as the Plan statutorily required 18.62% of the participant's salary to be contributed to the Plan. Through June 30, 2021, the Plan statutorily required 18.12% of the participant's salary to be contributed to the Plan. The Plan recognized a net investment gain of \$1.4 billion for the year 2021 compared to a net investment gain of \$800 million a year earlier.

Deductions from the Plan net position held in trust for benefits resulted from retirement and beneficiary benefits, administrative expenses and refunds to members terminating service. For 2021, benefits totaled \$632.8 million, an increase of \$26.4 million from a year earlier. The increase in benefits is due to the number of members and beneficiaries who received benefits being greater than the number of members who passed away. For 2021, the costs of administering the Plan's benefits totaled \$7.7 million, an increase from \$7.2 million a year earlier. Refunds resulted from employees leaving public service and requesting their contributions plus interest into the system be returned. Refunds to members terminating service totaled \$19.0 million in 2021, a decrease from \$19.4 million a year ago.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability increased from 79.24% on January 1, 2021 to 86.03% on January 1, 2022. The net pension liability as a percentage of covered payroll decreased from 122.07% to 83.78% as of January 1, 2021 and 2022, respectively. The net pension liability was \$1.52 billion as of January 1, 2022 compared to \$2.17 billion as of January 1, 2021. This is a decrease from the prior year.

Public Employee Pension Plan			Public Employee Pension Plan		
Net Position			Change in Net Position		
December 31, (Dollars in Thousands)			December 31, (Dollars in Thousands)		
Assets:	2021	2020	Additions:	2021	2020
Cash & Receivables	\$1,266,400	\$1,060,240	Employee Contributions	\$166,332	\$161,724
Investments: Fair Value	8,918,872	8,165,188	Employer Contributions	168,461	163,848
Securities Lending Collateral	500,119	315,706	Investment Income	1,414,900	805,892
Capital Assets/Net Depr.	2,344	2,642	Other Income	5,751	5,500
Total Assets	10,687,735	9,543,776	Total Additions	1,755,444	1,136,964
Liabilities:			Deductions:		
Securities Lending Payable	500,119	315,706	Benefits	632,777	606,335
Benefits & Refunds Payable	702	1,140	Refunds	19,019	19,413
Securities Purchased	32,834	43,784	Administrative Expenses	7,725	7,238
Other Payables	764,213	888,904	Depreciation Expense	298	295
Total Liabilities	1,297,868	1,249,534	Total Deductions	659,819	633,281
Total Net Position	\$9,389,867	\$8,294,242	Change in Net Position	1,095,625	503,683
			Total Beginning Net Position	8,294,242	7,790,559
			Total Ending Net Position	\$9,389,867	\$8,294,242

Management's Discussion and Analysis - Analysis of Individual Plans

State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan

The Wyoming State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan provides retirement benefits to covered sworn officers of the Wyoming State Highway Patrol, law enforcement officers employed by the Wyoming State Game & Fish Department and sworn peace officers of the Division of Criminal Investigation. Employee and employer contributions and earnings on investments fund benefits of the Plan.

The Plan's net position held in trust for benefits at December 31, 2021 totaled \$190.0 million, an increase of \$23.8 million from 2020. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment gains. For the calendar year 2021, employee and employer contributions totaled \$7.0 million, a decrease from 2020 contributions at \$7.2 million. The Plan recognized a net investment gain of \$28.4 million for the year 2021 compared to a net investment gain of \$16.1 million a year earlier.

Deductions from the Plan net position held in trust for benefits resulted primarily from retirement and beneficiary benefits, administrative expenses and refunds to members terminating service. For 2021, benefits totaled \$11.7 million, an increase from \$11.3 million in the prior year. For 2021, the costs of administering the Plan's benefits totaled \$161,144 compared to \$149,733 a year ago. Refunds resulted from employees leaving public service and requesting their contributions plus interest into the system be returned. Refunds to members terminating service totaled \$108,604 in 2021, a decrease from \$367,992 a year ago.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability increased from 82.47% on January 1, 2021 to 90.66% on January 1, 2022. The net pension liability as a percentage of covered payroll decreased from 146.74% to 80.92% as of January 1, 2021 and 2022, respectively. The net pension liability was \$19.6 million as of January 1, 2022 compared to \$35.3 million as of January 1, 2021. This is a decrease from the prior year.

State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan

Net Position

December 31, (Dollars in Thousands)

Assets:	2021	2020
Cash & Receivables	\$26,143	\$21,723
Investments: Fair Value	179,958	163,098
Securities Lending Collateral	10,091	6,306
Capital Assets/Net Depr.	42	48
Total Assets	216,234	191,175

Liabilities:

Securities Lending Payable	10,091	6,306
Benefits & Refunds Payable	1	16
Securities Purchased	663	875
Other Payables	15,433	17,766
Total Liabilities	26,188	24,963

Total Net Position \$190,046 \$166,212

State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan

Change in Net Position

December 31, (Dollars in Thousands)

Additions:	2021	2020
Employee Contributions	\$3,486	\$3,547
Employer Contributions	3,563	3,665
Investment Income	28,405	16,115
Other Income	400	385
Total Additions	35,854	23,712

Deductions:

Benefits	11,744	11,270
Refunds	109	368
Administrative Expenses	161	150
Depreciation Expense	6	6
Total Deductions	12,020	11,794

Change in Net Position 23,834 11,918

Total Beginning Net Position 166,212 154,294

Total Ending Net Position **\$190,046** **\$166,212**

Management's Discussion and Analysis - Analysis of Individual Plans

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan

On July 1, 2015, the Volunteer Firefighter and Emergency Medical Technician (EMT) Pension Plans were consolidated into the Volunteer Firefighter & EMT Pension Plan which provides retirement benefits to volunteer firefighters and emergency medical technicians electing to participate in the Plan. On July 1, 2019, Search and Rescue (SAR) Volunteers were added to the plan. Benefits of the Plan are funded by employee contributions, the fire insurance premium tax collected, and earnings on investments.

The Plan net position held in trust for benefits at December 31, 2021 totaled \$108.7 million, an increase of \$13.8 million from 2020. For the calendar year 2021, employee contributions totaled \$556,552, an increase of \$54,255 from 2020. The volunteer firefighter and EMT contribution is \$18.75 per month and the search and rescuer contribution is \$37.50 per month. The tax collected on fire insurance premiums totaled \$4.7 million in 2021 compared to \$5.5 million received in 2020. The Plan recognized a net investment gain of \$15.7 million for the year 2021 compared to a net investment gain of \$8.9 million a year earlier.

Deductions from the Plan net position held in trust for benefits resulted primarily from retirement and beneficiary benefits, administrative expenses and refunds to employees terminating service. For 2021, benefits totaled \$7.0 million, an increase from \$6.8 million a year earlier. The increase in benefits resulted from more retirees receiving benefits in 2021 than in 2020. For 2021, the cost of administering the Plan's benefits totaled \$95,155 compared to \$86,519 a year earlier. Refunds resulted from employees leaving public service and requesting their contributions plus interest into the system be returned. Refunds to members terminating service totaled \$31,778 in 2021, an increase from \$53,161 a year ago.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability increased from 80.53% on January 1, 2021 to 89.62% on January 1, 2022. The net pension liability was \$12.6 million as of January 1, 2022 compared to \$22.9 million as of January 1, 2021. This is a decrease from the prior year.

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan		
Net Position		
December 31, (Dollars in Thousands)		
Assets:	2021	2020
Cash & Receivables	\$17,522	\$14,923
Investments: Fair Value	100,097	90,292
Securities Lending Collateral	5,613	3,491
Capital Assets/Net Depr.	26	29
Total Assets	123,258	108,735
Liabilities:		
Securities Lending Payable	5,613	3,491
Benefits & Refunds Payable	6	5
Securities Purchased	368	484
Other Payables	8,584	9,863
Total Liabilities	14,571	13,843
Total Net Position	\$108,687	\$94,892

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan		
Change in Net Position		
December 31, (Dollars in Thousands)		
Additions:	2021	2020
Employee Contributions	\$557	\$502
Investment Income	15,709	8,849
Other Income	4,687	5,528
Total Additions	20,953	14,879
Deductions:		
Benefits	7,028	6,758
Refunds	32	53
Administrative Expenses	95	87
Depreciation Expense	3	3
Total Deductions	7,158	6,901
Change in Net Position	13,795	7,978
Total Beginning Net Position	94,892	86,914
Total Ending Net Position	\$108,687	\$94,892

Management's Discussion and Analysis - Analysis of Individual Plans

Paid Firemen's Pension Plan A

The Paid Firemen's Pension Plan A provides retirement benefits to paid firefighters who were employed prior to July 1, 1981. The plan is funded solely by earnings on investments.

The Plan net position held in trust for benefits on December 31, 2021 totaled \$73.4 million, a decrease of \$16.6 million from 2020. Additions to the Plan net position held in trust for benefits only include investment gains if earned. This Plan is a closed plan and the Board suspended contributions in April 1997. The Plan recognized a net investment loss of \$370,957 for the year 2021 compared to a net investment gain of \$8.6 million a year earlier. This Plan was solely invested in a more conservative fixed income strategy beginning January 2021 to protect the Plan assets from a severe market decline. The WRS Board believed a conservative strategy was prudent due to the continued decline of the Plan's assets.

Deductions from the Plan net position held in trust for benefits resulted primarily from retirement and beneficiary benefits as well as administrative expenses. For 2021, benefits totaled \$16.2 million, a decrease from \$16.3 in 2020. The benefits increase due to a 3% COLA awarded during the year and decrease as those receiving benefits pass away. For 2021, the costs of administering the Plan's benefits totaled \$105,199 compared to \$88,626 a year ago. There were no refunds paid to employees terminating service for 2021 or 2020.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability increased from 21.77% on January 1, 2021 to 42.90% on January 1, 2022. The net pension liability as a percentage of covered payroll decreased to 148,993.79% as of January 1, 2022. It was 493,421.65% as of January 1, 2021. The net pension liability was \$97.8 million as of January 1, 2022 compared to \$323.8 million as of January 1, 2021. This is a decrease from the prior year.

Paid Firemen's Pension Plan A		
Net Position		
December 31, (Dollars in Thousands)		
Assets:	2021	2020
Cash & Receivables	\$654	\$11,699
Investments: Fair Value	72,740	88,417
Securities Lending Collateral	-	3,419
Capital Assets/Net Depr.	70	73
Total Assets	73,464	103,608
Liabilities:		
Securities Lending Payable	-	3,419
Securities Purchased	-	474
Other Payables	20	9,632
Total Liabilities	20	13,525
Total Net Position	\$73,444	\$90,083

Paid Firemen's Pension Plan A		
Change in Net Position		
December 31, (Dollars in Thousands)		
Additions:	2021	2020
Investment Income (Loss)	\$(371)	\$8,559
Total Additions	(371)	8,559
Deductions:		
Benefits	16,160	16,342
Administrative Expenses	105	89
Depreciation Expense	3	4
Total Deductions	16,268	16,435
Change in Net Position	(16,639)	(7,876)
Total Beginning Net Position	90,083	97,959
Total Ending Net Position	\$73,444	\$90,083

Management's Discussion and Analysis - Analysis of Individual Plans

Paid Firemen's Pension Plan B

The Paid Firemen's Pension Plan B provides retirement benefits to paid firefighters who were employed on or after July 1, 1981. Benefits of the Plan are funded by employee and employer contributions and investment income.

The Plan net position held in trust for benefits on December 31, 2021 totaled \$218.7 million, an increase of \$32.6 million from 2020. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income. For the calendar year 2021, member and employer contributions totaled \$7.8 million, an increase from \$7.1 million in 2020. Contributions to the Plan increased on July 1, 2021 as the Plan statutorily required 25.745% of the participant's salary to be contributed to the Plan. Through June 30, 2021, the Plan statutorily required 24.245% of the participant's salary to be contributed to the Plan. The Plan recognized a net investment gain of \$32.0 million for the year 2021 compared to a net investment gain of \$18.0 million a year earlier.

Deductions from the Plan net position held in trust for benefits resulted primarily from retirement and beneficiary benefits, administrative expenses and refunds to employees terminating service. For 2021, benefits totaled \$6.9 million, an increase from \$6.4 million a year earlier. For 2021, the costs of administering the Plan's benefits totaled \$176,943 compared to \$158,826 a year ago. Refunds resulted from employees leaving public service and requesting their contributions into the system be returned. Refunds to members terminating service totaled \$70,926 in 2021, a decrease from \$85,314 a year ago.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability increased from 101.27% on January 1, 2021 to 107.43% on January 1, 2022. The net pension liability as a percentage of covered payroll decreased from (8.16%) to (50.48%) as of January 1, 2021 and 2022, respectively. The net pension asset was \$15.1 million as of January 1, 2022 compared to a net pension asset of \$2.3 million as of January 1, 2021. This is an increase in the net pension asset from the prior year.

Paid Firemen's Pension Plan B		
Net Position		
December 31, (Dollars in Thousands)		
Assets:	2021	2020
Cash & Receivables	\$31,723	\$25,468
Investments: Fair Value	205,324	181,323
Securities Lending Collateral	11,513	7,011
Capital Assets/Net Depr.	31	38
Total Assets	248,591	213,840
Liabilities:		
Securities Lending Payable	11,513	7,011
Benefits & Refunds Payable	4	-
Securities Purchased	756	972
Other Payables	17,608	19,752
Total Liabilities	29,881	27,735
Total Net Position	\$218,710	\$186,105

Paid Firemen's Pension Plan B		
Change in Net Position		
December 31, (Dollars in Thousands)		
Additions:	2021	2020
Employee Contributions	\$3,262	\$3,054
Employer Contributions	4,508	4,034
Investment Income	31,993	18,023
Total Additions	39,763	25,111
Deductions:		
Benefits	6,903	6,383
Refunds	71	85
Administrative Expenses	177	159
Depreciation Expense	7	6
Total Deductions	7,158	6,633
Change in Net Position	32,605	18,478
Total Beginning Net Position	186,105	167,627
Total Ending Net Position	\$218,710	\$186,105

Management's Discussion and Analysis - Analysis of Individual Plans

Judicial Pension Plan

The Wyoming Judicial Pension Plan provides retirement benefits to any Justice of the Supreme Court, District Judge or County Court Judge appointed to any of these offices on or after July 1, 1999, with no prior service as a Justice of the Supreme Court or District Judge at the time of the appointment. Benefits of the plan are funded by employee and employer contributions and earnings on investments.

The Plan net position held in trust for benefits on December 31, 2021 totaled \$43.8 million, an increase of \$6.3 million from 2020. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income. For the calendar year 2021, employee and employer contributions totaled over \$1.9 million, an increase from 2020 of \$59,796. The Plan recognized a net investment gain of \$6.4 million for the year ending 2021 compared to a net investment gain of \$3.6 million a year earlier.

Deductions from the Plan net position held in trust for benefits resulted primarily from retirement and beneficiary benefits and administrative expenses. For 2021, benefits totaled approximately \$1.9 million, an increase from 2020 of \$65,502. For 2021, the costs of administering the Plan's benefits totaled \$35,804 compared to \$32,231 a year ago. There were no refunds to members terminating service in 2021 or 2020.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability increased from 102.66% on January 1, 2021 to 107.47% on January 1, 2022. The net pension liability as a percentage of covered payroll decreased from (13.10%) to (38.61%) as of January 1, 2021 and 2022, respectively. The net pension asset was \$3.0 million as of January 1, 2022 compared to \$970,439 as of January 1, 2021. This is an increase in the net pension asset from the prior year.

Judicial Pension Plan		
Net Position		
December 31, (Dollars in Thousands)		
Assets:	2021	2020
Cash & Receivables	\$6,475	\$5,428
Investments: Fair Value	40,981	36,190
Securities Lending Collateral	2,298	1,399
Capital Assets/Net Depr.	4	6
Total Assets	49,758	43,023
Liabilities:		
Securities Lending Payable	2,298	1,399
Benefits & Refunds Payable	-	18
Securities Purchased	151	194
Other Payables	3,514	3,942
Total Liabilities	5,963	5,553
Total Net Position	\$43,795	\$37,470

Judicial Pension Plan		
Change in Net Position		
December 31, (Dollars in Thousands)		
Additions:	2021	2020
Employee Contributions	\$745	\$722
Employer Contributions	1,172	1,135
Investment Income	6,389	3,612
Total Additions	8,306	5,469
Deductions:		
Benefits	1,944	1,878
Administrative Expenses	36	32
Depreciation Expense	1	1
Total Deductions	1,981	1,911
Change in Net Position	6,325	3,558
Total Beginning Net Position	37,470	33,912
Total Ending Net Position	\$43,795	\$37,470

Management's Discussion and Analysis - Analysis of Individual Plans

Law Enforcement Pension Plan

The Wyoming Law Enforcement Pension Plan became effective July 1, 2002 and provides retirement benefits to any member who is a county sheriff, deputy county sheriff, and municipal police officer, duly authorized investigators of the Wyoming livestock board, Wyoming correctional officer, Wyoming law enforcement academy instructor, UW campus police officer, detention officer or dispatcher of law enforcement agencies. Benefits of the Plan are funded by employee and employer contributions and investment income.

The Plan net position held in trust for benefits on December 31, 2021 totaled \$882.4 million, an increase of \$117.3 million from 2020. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income. For the calendar year 2021, employee and employer contributions totaled \$28.3 million, a decrease from \$28.9 million in 2020. The Plan recognized a net investment gain of \$131.6 million for the year 2021 compared to a net investment gain of \$74.5 million in 2020.

Deductions from the Plan net position held in trust for benefits resulted primarily from retirement and beneficiary benefits, administrative expenses and refunds to employees terminating service. For 2021, benefits totaled \$40.2 million, an increase from \$37.6 million a year earlier. For 2021, the costs of administering the Plan's benefits totaled \$753,782 compared to \$695,251 during 2020. Refunds resulted from employees leaving public service and requesting their contributions plus interest into the system be returned. Refunds to members terminating service totaled \$3.1 million in 2021, an increase from almost \$2.8 million during 2020.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability decreased from 91.82% on January 1, 2021 to 75.62% on January 1, 2022. The net pension liability as a percentage of covered payroll increased from 42.38% to 171.27% as of January 1, 2021 and 2022, respectively. The net pension liability was \$284.5 million as of January 1, 2022 compared to \$68.1 million as of January 1, 2021. This is an increase from the prior year.

Law Enforcement Pension Plan			Law Enforcement Pension Plan		
Net Position			Change in Net Position		
December 31, (Dollars in Thousands)			December 31, (Dollars in Thousands)		
Assets:	2021	2020	Additions:	2021	2020
Cash & Receivables	\$119,492	\$98,786	Employee Contributions	\$14,160	\$14,447
Investments: Fair Value	837,731	752,134	Employer Contributions	14,114	14,490
Securities Lending Collateral	46,975	29,081	Investment Income	131,615	74,478
Capital Assets/Net Depr.	137	164	Other Income	1,540	1,818
Total Assets	1,004,335	880,165	Total Additions	161,429	105,233
Liabilities:			Deductions:		
Securities Lending Payable	46,975	29,081	Benefits	40,189	37,605
Benefits & Refunds Payable	81	106	Refunds	3,118	2,782
Securities Purchased	3,084	4,033	Administrative Expenses	754	695
Other Payables	71,843	81,934	Depreciation Expense	27	27
Total Liabilities	121,983	115,154	Total Deductions	44,088	41,109
Total Net Position	\$882,352	\$765,011	Change in Net Position	117,341	64,124
			Total Beginning Net Position	765,011	700,887
			Total Ending Net Position	\$882,352	\$765,011

Management's Discussion and Analysis - Analysis of Individual Plans

Air Guard Firefighter Pension Plan

The Air Guard Firefighter Pension Plan provides retirement benefits to covered Air Guard Firefighters. Benefits are funded by employee and employer contributions and earnings on investments. The Air Guard Firefighter Pension Plan was separated from the Public Employee Pension Plan on January 1, 2011.

The Plan's net position held in trust for benefit on December 31, 2021 was \$10.6 million, an increase of \$1.3 million from 2020. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income. For the calendar year 2021, employee and employer contributions totaled \$520,666, an increase compared to 2020 contributions at \$470,771. The Plan recognized a net investment gain of almost \$1.6 million for the year 2021 compared to a net investment gain of \$897,557 in 2020.

Deductions from the Plan's net position held in trust for benefits primarily included retirement and beneficiary benefits, administrative expenses and refunds to employees terminating service. For 2021, benefits totaled \$644,223, an increase from \$500,565 for the prior year. For 2021, the costs of administering the Plan's benefits totaled \$12,936 compared to \$8,048 during 2020. Refunds resulted from employees leaving public service and requesting their contributions plus interest into the system be returned. Refunds to members terminating service totaled \$178,314 in 2021 compared to no refunds a year earlier.

An actuarial valuation of the Plan's assets and net pension liability is performed annually. At the date of the most recent actuarial valuation, January 1, 2022, the fiduciary net position as a percentage of total pension liability increased from 92.76% on January 1, 2021 to 97.27% on January 1, 2022. The net pension liability as a percentage of covered payroll decreased from 31.61% to 13.81% as of January 1, 2021 and 2022, respectively. The net pension liability was \$297,918 as of January 1, 2022 compared to \$732,216 as of January 1, 2021. This is a decrease from the prior year.

Air Guard Firefighter Pension Plan		
Net Position		
December 31, (Dollars in Thousands)		
Assets:	2021	2020
Cash & Receivables	\$1,624	\$1,444
Investments: Fair Value	9,887	8,953
Securities Lending Collateral	554	346
Capital Assets/Net Depr.	1	1
Total Assets	12,066	10,744
Liabilities:		
Securities Lending Payable	554	346
Securities Purchased	36	48
Other Payables	849	975
Total Liabilities	1,439	1,369
Total Net Position	\$10,627	\$9,375

Air Guard Firefighter Pension Plan		
Change in Net Position		
December 31, (Dollars in Thousands)		
Additions:	2021	2020
Employee Contributions	\$365	\$330
Employer Contributions	156	141
Investment Income	1,567	898
Total Additions	2,088	1,369
Deductions:		
Benefits	644	501
Refunds	178	-
Administrative Expenses	13	8
Depreciation Expense	1	-
Total Deductions	836	509
Change in Net Position	1,252	860
Total Beginning Net Position	9,375	8,515
Total Ending Net Position	\$10,627	\$9,375

Management's Discussion and Analysis - Analysis of Total Defined Benefit Pension Plans

Total Defined Benefit Pension Plans

The Total Defined Benefit Pension Plans shown below reflects the 2021 and 2020 Net Position and Change in Net Position including the percentage change.

Total Defined Benefit Pension Plans				
Net Position				
December 31, (Dollars in Thousands)				
Assets:	2021	2020	Change	% Change
Cash & Receivables	\$1,470,033	\$1,239,711	\$230,322	18.6%
Investments: Fair Value	10,365,590	9,485,595	879,995	9.3%
Securities Lending Collateral	577,163	366,759	210,404	57.4%
Capital Assets/Net Depr.	2,655	3,001	(346)	-11.5%
Total Assets	12,415,441	11,095,066	1,320,375	11.9%
Liabilities:				
Securities Lending Payable	577,163	366,759	210,404	57.4%
Benefits & Refunds Payable	794	1,286	(492)	-38.3%
Securities Purchased	37,893	50,864	(12,971)	-25.5%
Other Payables	882,064	1,032,768	(150,704)	-14.6%
Total Liabilities	1,497,914	1,451,677	46,237	3.2%
Total Net Position	\$10,917,527	\$9,643,389	\$1,274,138	13.2%
Total Defined Benefit Pension Plans				
Change in Net Position				
December 31, (Dollars in Thousands)				
Additions:	2021	2020	Change	% Change
Employee Contributions	\$188,907	\$184,325	\$4,582	2.5%
Employer Contributions	191,974	187,313	4,661	2.5%
Investment Income	1,630,207	936,426	693,781	74.1%
Other Income	12,378	13,231	(853)	-6.4%
Total Additions	2,023,466	1,321,295	702,171	53.1%
Deductions:				
Benefits	717,389	687,072	30,317	4.4%
Refunds	22,527	22,701	(174)	-0.8%
Administrative Expenses	9,066	8,458	608	7.2%
Depreciation Expense	346	342	4	1.2%
Total Deductions	749,328	718,573	30,755	4.3%
Change in Net Position	1,274,138	602,722	671,416	111.4%
Total Beginning Net Position	9,643,389	9,040,667	602,722	6.7%
Total Ending Net Position	\$10,917,527	\$9,643,389	\$1,274,138	13.2%

Management's Discussion and Analysis - Subsequent Events

Disclosure of Subsequent Events

Legislative Changes

Subsequent to the December 31, 2021 measurement date for this financial report, the Wyoming Legislature convened for their scheduled 2022 session. During this session the Legislature passed one bill impacting the Wyoming Retirement System (WRS).

Senate File 0039 (Senate Enrolled Act 6) provided a solution to fund the Paid Firemen's Pension Plan A benefits for the remaining life of the Plan. The bill included an appropriation of \$75 million to a newly created Fire A legislative reserve account. In addition, 40% of the annual amount of fire insurance premium tax will be transferred to the Fire A legislative reserve account. WRS will invest the Fire A legislative reserve account with the existing commingled investment pool of the defined benefit plans. The Fire A legislative reserve account will be used to pay for Fire A pension plan benefits once the funds in the existing Paid Firemen's Pension Plan A are exhausted. Any remaining funds in the Fire A legislative reserve account will revert to the general fund when there are no longer any obligations. The bill also removed the 3% annual benefit increase (COLA) after April 1, 2022 and benefits to surviving spouses will only be paid for marriages occurring before April 1, 2022. The effective date of this legislation is April 1, 2022.

Management's Discussion and Analysis - Analysis of Deferred Compensation Plan

Deferred Compensation Plan

The Deferred Compensation (457) Plan is established under Section 457 of the Internal Revenue Code. This Plan provides supplemental retirement benefits for Plan participants. The Plan is funded by participant contributions, investment earnings and, in some cases, employer contributions. Participants direct their own investments among a menu of investment options determined by the Board.

The Plan's net position held in trust for Plan participants at December 31, 2021 amounted to almost \$1.1 billion compared to \$925.4 million a year earlier. Changes to the Plan net position held in trust for Plan participants include contributions and investment income. The Plan experienced a total increase in net position of \$131.7 million for the year 2021 compared to a net increase of \$119.2 million for 2020. For the year 2021, employee contributions received totaled \$54.2 million compared to \$53.0 million in 2020. Deductions from the Plan's net position are distributions to participants and administrative expenses. A participant may request a distribution upon severance of employment, retirement, or an unforeseeable emergency as defined by the IRS Code. For 2021, distributions totaled \$48.0 million compared to \$38.4 million in distributions paid out in 2020.

The cost of the Plan is paid for primarily with administrative fees. In years when there is a surplus of participant fees, it is held in trust by WRS for future Plan expenses in periods of down markets. WRS receives a minimal amount of rebates

from investment companies, which are returned to participants invested in the fund associated with the rebate.

In addition to administrative fees, participants also pay fund operating expenses to the fund managers depending on the funds selected. These expenses are deducted daily before share prices are valued. The Plan's record keeper maintains an individual account for each participant to which deferrals and other changes in value are credited.

Direct administrative expense amounted to \$744,775 compared to \$673,106 in the prior year. In addition to direct administrative expense, WRS incurs indirect administrative expenses for record keeping and portfolio management which have the effect of reducing what would otherwise be administrative revenue. Revenue reductions for indirect administrative activity totaled \$730,111 in 2021, compared to \$708,033 in 2020.

Deferred Compensation Plan				
Net Position				
December 31, (Dollars in Thousands)				
Assets:	2021	2020	Change	% Change
Cash & Receivables	\$19,169	\$15,685	\$3,484	22.2%
Investments: Fair Value	1,037,954	909,700	128,254	14.1%
Total Assets	1,057,123	925,385	131,738	14.2%
Liabilities:				
Other Payables	6	(4)	10	-250.0%
Total Liabilities	6	(4)	10	-250.0%
Total Net Position	\$1,057,117	\$925,389	\$131,728	14.2%

Deferred Compensation Plan				
Change in Net Position				
December 31, (Dollars in Thousands)				
Additions:	2021	2020	Change	% Change
Contributions	\$54,168	\$52,961	\$1,207	2.3%
Investment Income (Loss)	126,305	105,363	20,942	19.9%
Total Additions	180,473	158,324	22,149	14.0%
Deductions:				
Benefits	48,000	38,417	9,583	24.9%
Administrative Expenses	745	673	72	10.7%
Total Deductions	48,745	39,090	9,655	24.7%
Change in Net Position	131,728	119,234	12,494	10.5%
Total Beginning Net Position	925,389	806,155	119,234	14.8%
Total Ending Net Position	\$1,057,117	\$925,389	\$131,728	14.2%

Basic Financial Statements

WYOMING RETIREMENT SYSTEM

STATEMENT OF FIDUCIARY NET POSITION - PENSION (AND OTHER EMPLOYEE BENEFIT) FUNDS

December 31, 2021

	Public Employees Pension Plan	State Patrol Game & Fish Warden and Criminal Investigator Pension Plan	Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan	Paid Firemen's Pension Plan A
Assets				
Cash and cash equivalents:				
Cash with State Treasurer	\$17,054,127	\$1,304,299	\$1,767,151	\$653,493
Domestic liquidity - outside banks	442,302,512	8,924,450	4,964,002	-
	459,356,639	10,228,749	6,731,153	653,493
Receivables:				
Insurance premium tax	-	-	1,900,000	-
Employee contributions	9,106,435	-	40,150	-
Employer contributions	9,226,070	13	-	-
Securities sold	9,134,653	184,312	102,519	-
Accrued interest and dividends	21,901,115	442,166	246,482	212
Currency contract receivable	757,559,070	15,285,462	8,502,155	-
Other	116,185	2,027	-	-
Rebate and fee income receivable	-	-	-	-
	807,043,528	15,913,980	10,791,306	212
Investments, at fair value:				
Fixed Income	1,730,448,135	34,915,691	19,420,979	72,739,666
Equities	4,552,690,130	91,860,784	51,095,260	-
Private Markets	986,583,756	19,906,551	11,072,520	-
Marketable Alternatives	1,649,150,285	33,275,324	18,508,565	-
Security lending collateral	500,118,689	10,091,022	5,612,878	-
Investment contracts	-	-	-	-
Self Directed Brokerage Investments	-	-	-	-
	9,418,990,995	190,049,372	105,710,202	72,739,666
Capital assets, at cost, net of accumulated depreciation	2,344,145	41,909	25,719	69,869
Total Assets:	10,687,735,307	216,234,010	123,258,380	73,463,240
Liabilities				
Payables:				
Benefits and refunds payable	702,344	973	5,709	-
Securities purchased	32,834,610	662,512	368,506	-
Administrative and consulting fees payable	11,548,297	247,097	137,243	19,688
Currency contract payable	752,664,720	15,186,707	8,447,225	-
Securities lending collateral	500,118,689	10,091,022	5,612,878	-
Total Liabilities:	1,297,868,660	26,188,311	14,571,561	19,688
Net Position restricted for pensions	\$9,389,866,647	\$190,045,699	\$108,686,819	\$73,443,552

See Notes to Financial Statements for additional information.

Basic Financial Statements

WYOMING RETIREMENT SYSTEM (Continued)

STATEMENT OF FIDUCIARY NET POSITION - PENSION (AND OTHER EMPLOYEE BENEFIT) FUNDS

December 31, 2021

Paid Firemen's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan	Total	Defined Contribution Plan 457 Plan	Total Pension Trust Plans
\$2,742,344	\$819,148	\$1,909,658	\$259,429	\$26,509,649	\$456,295	\$26,965,944
10,182,399	2,032,308	41,544,542	490,291	510,440,504	16,433,789	526,874,293
12,924,743	2,851,456	43,454,200	749,720	536,950,153	16,890,084	553,840,237
-	-	-	-	1,900,000	-	1,900,000
268,111	-	962,957	-	10,377,653	383,624	10,761,277
374,282	24	969,988	-	10,570,377	-	10,570,377
210,292	41,972	857,999	10,126	10,541,873	-	10,541,873
505,032	100,875	2,057,313	24,329	25,277,524	-	25,277,524
17,440,029	3,480,860	71,155,925	839,753	874,263,254	-	874,263,254
-	-	34,076	-	152,288	-	152,288
-	-	-	-	-	1,895,895	1,895,895
18,797,746	3,623,731	76,038,258	874,208	933,082,969	2,279,519	935,362,488
39,837,245	7,951,126	162,537,342	1,918,199	2,069,768,383	342,973,909	2,412,742,292
104,809,055	20,918,867	427,624,577	5,046,648	5,254,045,321	670,756,193	5,924,801,514
22,712,486	4,533,191	92,667,730	1,093,626	1,138,569,860	19,205,838	1,157,775,698
37,965,659	7,577,576	154,901,206	1,828,080	1,903,206,695	-	1,903,206,695
11,513,405	2,297,964	46,975,093	554,381	577,163,432	-	577,163,432
-	-	-	-	-	6,676	6,676
-	-	-	-	-	5,010,995	5,010,995
216,837,850	43,278,724	884,705,948	10,440,934	10,942,753,691	1,037,953,611	11,980,707,302
30,834	4,604	136,707	992	2,654,779	-	2,654,779
248,591,173	49,758,515	1,004,335,113	12,065,854	12,415,441,592	1,057,123,214	13,472,564,806
3,576	-	80,604	-	793,206	-	793,206
755,897	150,870	3,084,086	36,397	37,892,878	-	37,892,878
280,934	56,096	1,146,873	13,539	13,449,767	5,828	13,455,595
17,327,355	3,458,371	70,696,209	834,327	868,614,914	-	868,614,914
11,513,405	2,297,964	46,975,093	554,381	577,163,432	-	577,163,432
29,881,167	5,963,301	121,982,865	1,438,644	1,497,914,197	5,828	1,497,920,025
\$218,710,006	\$43,795,214	\$882,352,248	\$10,627,210	\$10,917,527,395	\$1,057,117,386	\$11,974,644,781

Basic Financial Statements

WYOMING RETIREMENT SYSTEM

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION - PENSION (AND OTHER EMPLOYEE BENEFIT) FUNDS

Year Ended December 31, 2021

	Public Employees Pension Plan	State Patrol Game & Fish Warden and Criminal Investigator Pension Plan	Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan	Paid Firemen's Pension Plan A
Additions				
Contributions:				
Employee	\$166,331,964	\$3,486,638	\$556,552	\$-
Employer	168,461,347	3,562,731	-	-
Other	5,750,948	399,908	4,687,030	-
	<u>340,544,259</u>	<u>7,449,277</u>	<u>5,243,582</u>	<u>-</u>
Investment Income				
From Investing Activities:				
Net appreciation (depreciation) in fair value of investments	1,312,107,813	26,329,300	14,526,385	(630,285)
Interest and dividends	155,117,113	3,128,186	1,738,276	327,624
Total investing activity	<u>1,467,224,926</u>	<u>29,457,486</u>	<u>16,264,661</u>	<u>(302,661)</u>
Investing activity expenses				
Investment advisor or contractor fees	(53,150,610)	(1,069,129)	(564,292)	(68,296)
Net income (loss) from investing activities	<u>1,414,074,316</u>	<u>28,388,357</u>	<u>15,700,369</u>	<u>(370,957)</u>
Securities lending activities:				
Securities lending gross income	971,513	19,507	10,770	158
Securities lending expenses:				
Agent fees	(145,487)	(2,921)	(1,613)	(24)
Total securities lending expenses	<u>(145,487)</u>	<u>(2,921)</u>	<u>(1,613)</u>	<u>(24)</u>
Net income from securities lending activities:	826,026	16,586	9,157	134
Total investment income (loss)	<u>1,414,900,342</u>	<u>28,404,943</u>	<u>15,709,526</u>	<u>(370,823)</u>
Total additions (deletions)	<u>1,755,444,601</u>	<u>35,854,220</u>	<u>20,953,108</u>	<u>(370,823)</u>
Deductions				
Benefits paid / Distributions	632,776,958	11,744,509	7,027,915	16,160,140
Refunds	19,019,015	108,604	31,778	-
Administrative expenses	7,698,470	155,352	87,551	71,393
Administrative expenses: Fund Specific	27,343	5,792	7,604	33,806
Depreciation expense	298,065	5,973	3,410	3,237
Total deductions	<u>659,819,851</u>	<u>12,020,230</u>	<u>7,158,258</u>	<u>16,268,576</u>
Net increase (decrease) in Net Position	1,095,624,750	23,833,990	13,794,850	(16,639,399)
Net position restricted for pensions:				
Beginning of year	8,294,241,897	166,211,709	94,891,969	90,082,951
End of year	<u>\$9,389,866,647</u>	<u>\$190,045,699</u>	<u>\$108,686,819</u>	<u>\$73,443,552</u>

See Notes to Financial Statements for additional information.

Basic Financial Statements

WYOMING RETIREMENT SYSTEM (Continued)

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION - PENSION (AND OTHER EMPLOYEE BENEFIT) FUNDS

Year Ended December 31, 2021

Paid Firemen's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan	Total	Defined Contribution Plan 457 Plan	Total Pension Trust Plans
\$3,261,693	\$745,064	\$14,160,550	\$364,707	\$188,907,168	\$54,167,789	\$243,074,957
4,508,157	1,171,735	14,113,663	155,959	191,973,592	-	191,973,592
248	23	1,540,186	-	12,378,343	-	12,378,343
7,770,098	1,916,822	29,814,399	520,666	393,259,103	54,167,789	447,426,892
29,638,731	5,915,602	122,031,188	1,450,745	1,511,369,479	123,950,900	1,635,320,379
3,545,842	712,050	14,471,892	174,944	179,215,927	3,084,605	182,300,532
33,184,573	6,627,652	136,503,080	1,625,689	1,690,585,406	127,035,505	1,817,620,911
(1,210,856)	(241,675)	(4,965,077)	(58,938)	(61,328,873)	(730,111)	(62,058,984)
31,973,717	6,385,977	131,538,003	1,566,751	1,629,256,533	126,305,394	1,755,561,927
22,004	4,392	90,480	1,075	1,119,899	-	1,119,899
(3,295)	(658)	(13,550)	(161)	(167,709)	-	(167,709)
(3,295)	(658)	(13,550)	(161)	(167,709)	-	(167,709)
18,709	3,734	76,930	914	952,190	-	952,190
31,992,426	6,389,711	131,614,933	1,567,665	1,630,208,723	126,305,394	1,756,514,117
39,762,524	8,306,533	161,429,332	2,088,331	2,023,467,826	180,473,183	2,203,941,009
6,902,972	1,943,586	40,189,329	644,223	717,389,632	48,000,402	765,390,034
70,926	-	3,117,493	178,314	22,526,130	-	22,526,130
175,883	35,419	717,021	8,731	8,949,820	744,775	9,694,595
1,060	385	36,761	4,205	116,956	-	116,956
6,688	1,347	27,492	337	346,549	-	346,549
7,157,529	1,980,737	44,088,096	835,810	749,329,087	48,745,177	798,074,264
32,604,995	6,325,796	117,341,236	1,252,521	1,274,138,739	131,728,006	1,405,866,745
186,105,011	37,469,418	765,011,012	9,374,689	9,643,388,656	925,389,380	10,568,778,036
\$218,710,006	\$43,795,214	\$882,352,248	\$10,627,210	\$10,917,527,395	\$1,057,117,386	\$11,974,644,781

Notes to the Basic Financial Statements

Note 1.

Reporting Entity and Summary of Significant Accounting Policies

Reporting Entity

The Wyoming Retirement System (WRS) is a Fiduciary Fund of the State of Wyoming charged by State Statutes to provide retirement benefits for retired and disabled public employees. The decision that WRS is a Fiduciary Fund of the State of Wyoming was made by applying the criteria set forth in accounting principles generally accepted in the United States of America (GAAP). The basic criterion for this decision is that the State of Wyoming and its elected officials are accountable for WRS. The State's financial accountability was primarily determined by the fact that the Governor appoints the voting majority of the WRS board members and can thus impose the will of the State on WRS.

Although WRS is a Fiduciary Fund of the State of Wyoming, it serves as the nucleus for the reporting entity under the provisions of Government Accounting Standards Board (GASB) Statement No. 14 for its separately issued financial statements. Using this premise, WRS is not financially accountable for any other organizations and thus, includes only the financial activity of the various plans of WRS.

Basis of Accounting

The accompanying financial statements are prepared using the accrual basis of accounting and include the accounts of eight defined benefit pension plans and one defined contribution plan, all of which are administered by the System:

- Public Employee Pension Plan
- State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan
- Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan
- Paid Firemen's Pension Plan A
- Paid Firemen's Pension Plan B
- Judicial Pension Plan
- Law Enforcement Pension Plan
- Air Guard Firefighter Pension Plan
- Deferred Compensation Plan (457 Plan)

The financial activities of these pension plans are included in the fiduciary funds of the Wyoming On-Line Financial System as established by the Wyoming Funds Consolidation Act and are defined as pension (and other employee benefit) trust funds by accounting principles generally accepted in the United States of America.

Each pension plan maintains separate accounts and all actuarial determinations are made using separate fund-based information. All plans own a percentage of the combined investment fund. Although the assets of the pension plans are commingled for investment purposes, each pension plan's assets may be used only for the payment of benefits to the members of that plan in accordance with the terms of the plan.

Employee and employer contributions are recognized as revenue in the period in which employee services are performed. Benefits, refunds, and contribution returns are recognized when due and payable in accordance with the terms of the plan.

Refunds represent withdrawals of participant contributions by participants in the form of a total or partial rollover or direct distribution from the plan. Return of contributions consists of the withdrawal of both participant and employer contributions returned to the employer as allowed in limited circumstances by state statute.

Method Used to Value Investments

Investments are reported at fair value. The fair value of the investments, other than those described below, was determined by the latest bid price or by the closing exchange price at the statement of net position date. The fair value of investments that are organized as limited partnerships and have no readily ascertainable fair values (such as private equity, real estate, and real assets) has been determined by management based on the individual investment's capital account balance, reported at fair value by each respective general partner, at the closest available reporting period. The fair value is then adjusted for subsequent contributions, distributions, management fees, and changes in values of foreign currency.

Capital Assets

Capital assets including buildings, equipment and software are reported in the financial statements (Statement of Net Position). Capital assets are stated at cost.

The Wyoming Retirement System capitalized all building, equipment, and other capital assets that have a value or cost equal to or greater than the capitalization threshold for its asset type at the date of acquisition and has a useful life that extends beyond a single reporting period. The Wyoming Retirement System's capital assets are depreciated over their useful lives using the straight-line method. Capital asset thresholds and estimated useful lives are as follows:

Capital Assets

Asset Type	Estimated Life	Capitalization Threshold
Buildings	5-40 years	\$50,000
Leasehold Improvements	5-25 years	50,000
Land	n/a	Capitalize all
Equipment	3-17 years	15,000
Intangible-Purchased Software	3-15 years	50,000
Intangible-Internally Generated Software	3-15 years	2,000,000

Administrative Expenses

Administrative expenses of WRS are paid proportionately based on total proportionate share of the total fiduciary net position per prior month.

Notes to the Basic Financial Statements

Note 2. Description of the Retirement Plans

WRS is the administrator of a multiple employer, cost sharing public employee retirement system (PERS) and its designated purpose is to provide retirement allowances and other benefits to members. The authority for establishing and amending the benefits and contribution rates rests with the Legislature of the State of Wyoming. The obligation to collect and remit the contribution rests with the employers of each plan. Administrative costs are deducted from the plan assets of each plan. The costs of administering the plan are financed by both the investment income and contributions. WRS is also the administrator of a deferred compensation (457(b)) plan.

At December 31, 2021, WRS's Employer membership consisted of the following:

Number of Employers by Type	
State Agencies	83
Public Schools	52
Universities & Community Colleges	8
Counties	23
Municipalities	86
Other	257
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue	123
Paid Firemen	16
Total:	648

Employers may participate in more than one plan as indicated in the table below. The Paid Firemen's Pension Plan A is a closed plan and as such does not have any participating employers.

Employer Participation by Plan	Public Employees Pension Plan	State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan	Volunteer Firefighter, EMT, Search & Rescue Pension Plan	Paid Firemen's Pension Plan A	Paid Firemen's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan	Deferred Compensation 457(b) Plan
State Agencies	X	X				X	X	X	X
Public Schools	X								X
Universities & Community Colleges	X						X		X
Counties	X						X		X
Municipalities	X						X		X
Other	X								X
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue			X						X
Paid Firemen					X				X

Notes to the Basic Financial Statements

Following are descriptions of the members of each of the cost sharing multiple employer public employee retirement system pension plans administered by WRS:

	Public Employee Pension Plan	State Patrol, Game & Fish Warden and Criminal Investigator Pension Plan	Volunteer Firefighter, EMT, and Search & Rescue Pension Plan	Paid Firemen's Pension Plan A	Paid Firemen's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan	Total
Current Employees:									
Vested	22,847	187	1,478	-	290	36	1,768	16	26,622
Non-vested	11,686	111	888	-	96	17	811	22	13,631
Total Current Employees:	34,533	298	2,366	-	386	53	2,579	38	40,253
Inactive employees entitled to benefits but not yet receiving them									
	7,986	32	491	-	55	1	457	6	9,028
Total active or vested	42,519	330	2,857	-	441	54	3,036	44	49,281
Inactive nonvested non retired/non vested members									
	27,430	69	1,795	1	32	-	1,263	8	30,598
Total Active/Inactive Members	69,949	399	4,652	1	473	54	4,299	52	79,879
Retirees and beneficiaries of deceased retirees currently receiving benefits									
	30,226	365	1,646	259	171	32	1,522	19	34,240
Total all members	100,175	764	6,298	260	644	86	5,821	71	114,119

Public Employee Pension Plan

The Public Employee Pension Plan is a cost sharing multiple employer defined benefit, contributory retirement plan covering substantially all employees of the State and of the Public School Systems of Wyoming. The Plan also covers employees of those political subdivisions and other statutorily allowed entities, which have elected to participate in the Plan.

Starting on July 1, 2021, the Plan statutorily required 18.62% of the participant's salary to be contributed to the Plan. Contributions consist of 9.25% of the participant's salary as employee contributions and 9.37% as employer contributions. From July 1, 2020 to June 30, 2021, the statutorily required contributions consisted of 9.00% of the participant's salary as employee contributions and 9.12% as employer contributions for a total contribution of 18.12%. The amount of contributions designated as employee contributions represent the portion of total contributions that a participant retains ownership of and can elect to receive as a refund upon termination of employment. Employers can elect to cover all or a portion of the employee's contribution at their discretion. Through legislation passed during the 2014 legislative session, two tiers of benefits were established for participants of this plan.

- Tier 1, the Plan allows for normal retirement after four years of service and attainment of age 60. Early retirement is allowed provided the employee has completed four years of service and attained age 50 or 25 years of service but will result in a reduction of benefits based on the length of time remaining to age 60.
- Tier 2, the Plan allows for normal retirement after four years of service and attainment of age 65. Early retirement is allowed provided the employee has completed four years of service and attained age 55, or 25 years of service but will result in a reduction of benefits based on the length of time remaining to age 65.

All employees may also retire upon normal retirement when the sum of the member's age and service is at least 85.

The Public Employees Plan provides retirement, disability and death benefits according to predetermined formulas and allows retirees to select one of seven optional methods for receiving benefits, including two joint and survivor forms of benefits: a 100% joint and survivor annuity, and a 50% joint and survivor annuity. The benefit amounts under these options are determined on an actuarially equivalent basis. The State Legislature must grant any cost of living adjustment provided to retirees. In addition, a cost of living adjustment will not be approved by the legislature unless the plan is 100% funded after the COLA is awarded.

Notes to the Basic Financial Statements

Public Employee Pension Plan (continued)

Employees terminating prior to normal retirement can elect to withdraw all employee contributions and accumulated interest through date of termination or, if they are vested, they may elect to remain in the Plan and be eligible for unreduced retirement benefits at age 60 (Tier 1 employee) or 65 (Tier 2 employee).

State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan

The Wyoming State Patrol, Game & Fish Warden and Criminal Investigator Pension Plan is a cost sharing multiple employer defined benefit, contributory retirement plan covering sworn officers of the Wyoming State Highway Patrol and law enforcement officers employed by the Wyoming State Game & Fish Department and sworn peace officers of the Division of Criminal Investigation.

The Plan statutorily requires participants to contribute 14.56% of their salary to the Plan and the State is required to contribute 14.88% of each participant's salary for a total contribution of 29.44%.

The Plan allows for normal retirement at age 50. The Plan provides retirement, disability and death benefits according to predetermined formulas. Terminating employees are entitled to a refund of employee contributions and accumulated interest. If they are vested, they may elect to remain in the Plan and be eligible for retirement benefits at age 50. The cost of living adjustment provided to retirees is determined by the Board and must be approved by the State Legislature. In addition, a cost of living adjustment will not be approved by the legislature unless the plan is 100% funded after the COLA is awarded.

The maximum service pension is 75% of the three-year highest average salary. The minimum years of service requirement for a monthly benefit is six years.

Volunteer Firefighter, Emergency Medical Technician (EMT), and Search & Rescue Pension Plan

The Volunteer Firefighter, EMT, and Search & Rescue Pension Plan is a cost sharing multiple employer defined benefit, contributory retirement plan covering volunteer firefighters, emergency medical technicians (EMTs), and search and rescuers who elect to participate in the Plan. The volunteer firefighter and EMT contribution is \$18.75 per month and the search and rescuer contribution is \$37.50 per month. Any contributions to the Plan may be fully or partially paid by political subdivisions on behalf of participants, if approved by the governing board. In addition, the State paid into the Plan 100% of the gross annual tax collected on fire insurance premiums.

The Plan provides retirement and death benefits according to predetermined amounts primarily determined by entry age and years of service of the participant. Participants may withdraw from the Plan at any time and receive refunds of participant contributions and accumulated interest. The Volunteer Firefighter and EMT plan was created on July 1, 2015, combining the assets and liabilities of two predecessor plans (Volunteer Fireman's Plan and Volunteer EMT Plan). On July 1, 2019, Search and Rescue Volunteers were added to the plan.

Paid Firemen's Pension Plan A

The Paid Firemen's Pension Plan A is a cost sharing multiple employer defined benefit, contributory retirement plan covering paid firefighters who were employed prior to July 1, 1981 and who elected to participate.

The Plan statutorily required participants to contribute 8% of their salary to a maximum not to exceed the salary of a Firemen First Class. Employers were required to contribute 21% of the salary. Effective April 1, 1997, required contributions were suspended as the Plan had been determined to be actuarially over-funded. Due to increased benefits and the lack of contributions, the Paid Firemen's Pension Plan A assets steadily decreased. During the 2022 legislative session, a bill passed to ensure this plan is adequately funded. See the Legislative Changes section on page 62 for a description of this bill.

The Plan statutorily provides retirement, disability and death benefits according to a percentage of a firefighter first class salary. The Plan also statutorily provides for an annual percentage increase in the benefit amounts beginning in the year following twelve (12) months of payments by at least 3%. The 2022 legislation removed the increase after April 1, 2022. Participants may withdraw from the Plan at any time and receive refunds of participant contributions without interest.

Starting in 2021, the Wyoming Retirement System Board (Board) decided to invest the assets of the closed Fire A pension plan in a more conservative fixed income strategy. The Board believed a conservative strategy was prudent as the Fire A assets continued to decline and were projected to be exhausted in approximately five years. The shortening time horizon meant that Fire A was increasingly exposed to sudden failure in the event of a severe market decline. The more conservative asset allocation protected the Fire A funds from such a decline. With the passage of the 2022 legislation, the Board decided to invest the Fire A pension plan with the existing commingled investment pool of the defined benefit plans as of April 1, 2022.

Notes to the Basic Financial Statements

Paid Firemen's Pension Plan B

The Paid Firemen's Pension Plan B is a cost sharing multiple employer defined benefit, contributory retirement plan covering paid firefighters who were employed after July 1, 1981.

Starting on July 1, 2021, the Plan statutorily requires participants to contribute 10.745% of their salary to the Plan and the employer is required to contribute 15% of each participant's salary. From July 1, 2020 to June 30, 2021, the Plan statutorily required participants to contribute 10.245% of their salary to the Plan and the employer was required to contribute 14% of each participant's salary.

The Plan provides retirement, disability and death benefits according to predetermined formulas. The State Legislature grants any cost of living adjustment provided to retirees. In addition, a cost of living adjustment will not be approved by the legislature unless the plan is 100% funded after the COLA is awarded. Participants may withdraw from the Plan at any time and receive refunds of participant contributions without interest.

Wyoming Judicial Pension Plan

The Wyoming Judicial Pension Plan is a single employer defined benefit, contributory plan covering any Justice of the Supreme Court, District Judge or County Court Judge appointed to any of these offices on or after July 1, 1998, and with no prior service as a justice of the Supreme Court or district judge at the time of the appointment. The Plan also covers any justice or judge who elects to participate.

The Plan statutorily requires participants to contribute 9.22% of their salary to the Plan and the employer is required to contribute 14.5% of each participant's salary. The Plan statutorily provides retirement and death benefits according to predetermined amounts primarily determined by age and years of service of the participant. Any cost of living adjustment provided to retirees is determined by the Board and must be approved by the State Legislature. In addition, a cost of living adjustment will not be approved by the legislature unless the plan is 100% funded after the COLA is awarded. Participants may withdraw from the Plan at any time and receive refunds of participant contributions and accumulated interest.

Law Enforcement Pension Plan

The Wyoming Law Enforcement Pension Plan is a cost sharing multiple employer defined benefit, contributory plan covering any county sheriff, deputy county sheriff, municipal police officer, Wyoming correctional officer, Wyoming law enforcement academy instructor, University of Wyoming campus police officer, detention officer or dispatcher for law enforcement agencies and certain investigators of the Wyoming Livestock Board, Wyoming Gaming Commission and Wyoming Board of Outfitters.

The Plan statutorily requires participants to contribute 8.6% of their salary to the Plan and the employer is required to contribute 8.6% of each participant's salary.

The Plan statutorily provides retirement, disability and death benefits according to predetermined amounts determined by salary, age and years of service of the participant. The State Legislature must grant any cost of living adjustment provided to retirees. In addition, a cost of living adjustment will not be approved by the legislature unless the plan is 100% funded after the COLA is awarded. Participants may withdraw from the Plan at any time and receive refunds of participant contributions and accumulated interest.

Air Guard Firefighter Pension Plan

The Air Guard Pension Plan is a single employer defined benefit, contributory retirement plan covering the Air Guard Firefighters.

The Air Guard Firefighter Pension Plan statutorily required 23.77% of the participant's salary to be contributed to the Plan. Contributions consist of 16.65% of the participant's salary as employee contributions and 7.12% as employer contributions. The amount of contributions designated as employee contributions represent the portion of total contributions that a participant retains ownership of and can elect to receive as a refund upon termination of employment. The State Legislature must grant any cost of living adjustment provided to retirees. In addition, a cost of living adjustment will not be approved by the legislature unless the plan is 100% funded after the COLA is awarded. Employers can elect to cover all or a portion of the employee's contribution at their discretion.

Notes to the Basic Financial Statements

Wyoming Deferred Compensation Plan

The Plan administered by WRS is an IRS Section 457 Deferred Compensation Plan. This Plan is intended as a supplemental plan to the defined benefit retirement benefits of WRS for employees of public employers, which have adopted the Plan. Non-state employers may offer competing 457 plans offered through vendors, however in some cases, the 457 Deferred Compensation Plan is the only plan offered by the employer. Contributions may be made into the Plan, subject to Plan and Internal Revenue Code limitations, by employees of participating employers sponsoring the Plan. There were 27,745 open accounts and 14,711 accounts receiving contributions in the Plan from 302 different employers.

Upon qualifying for distributions, benefits are paid out in lump sums, or as periodic benefit payments, at the option of the participant based on individual account balances and Plan provisions. The Plan's account balances are fully vested to the participants at the time of deposit.

Investments in the Plan are individually directed by Plan participants among Board approved investment options of varying degrees of risk and earnings potential. Participants may transfer their funds between these options daily. Investments of the Plan are valued daily.

In addition to employee contributions, the 457 Plan also accepts employer contributions on behalf of their employees, provided such contribution when added to the employees' deferred contribution does not exceed the maximum deferral permitted by the IRS.

Notes to the Basic Financial Statements

Note 3. Cash, Cash Equivalents and Investments

WRS's Board has been authorized by the Wyoming Legislature, pursuant to State Statutes including W.S. 9-3-408(b), to act on behalf of the plan membership in investing and managing monies in the retirement account. In doing so, per the language in W.S. 9-3-408(b), it shall exercise the judgment and care that a prudent investor would, in light of the purposes, terms, distribution requirements and all other circumstances surrounding the monies in the retirement account, including risk and return objectives established by the Board which are reasonably suitable to the purpose of the Wyoming Retirement System. The Board shall evaluate and select target asset classes to enhance returns or reduce risk in the total portfolio and has delegated to staff the responsibility to select strategic asset classes and investment managers.

The following table shows the System's defined benefit plan investments by type as of December 31, 2021:

Target Asset Class	Target	Max	Min	2021	With Overlay	Physical Securities
Tactical Cash	2.00%	5.00%	0.00%	3.65%	\$394,228,737	\$510,440,504
Total Fixed Income	21.00%			20.86%	2,253,273,061	1,997,028,717
Marketable Fixed Income	18.00%	25.50%	13.00%	16.32%		
Corporate Bonds/Credit					573,328,133	573,328,133
Emerging Markets Debt					18,180,938	18,180,938
Mortgages/ABS					36,244,656	36,244,656
TIPS					2,965,896	2,965,896
Treasury/Agencies/Governments					1,132,320,134	876,075,789
Private Debt	3.00%	7.50%	2.50%	4.54%	490,233,305	490,233,305
Total Equity	48.50%			47.34%	5,114,012,743	5,254,045,321
Marketable Equity	39.50%	44.50%	34.50%	37.34%		
Domestic					2,241,753,589	2,315,799,329
Emerging Markets					740,151,120	712,865,945
International Developed					1,052,338,908	1,145,610,921
Private Equity	9.00%	12.50%	2.50%	9.99%	1,079,769,126	1,079,769,126
Marketable Alternatives	19.00%	24.00%	14.00%	17.62%	1,903,206,695	1,903,206,695
Absolute Return					651,462,651	651,462,651
Enhanced Fixed Income					67,061,214	67,061,214
GAA					323,728,473	323,728,473
Opportunistic/Directional					860,954,357	860,954,357
Private Real Assets	9.50%	13.00%	7.00%	10.53%	1,138,569,861	1,138,569,861
Other Real Assets					800,297,438	800,297,438
Real Estate					338,272,423	338,272,423
Total Investments					10,803,291,097	10,803,291,097
Net Receivables/Payables					3,202,695	3,202,695
Total Assets					\$10,806,493,792	\$10,806,493,792

Note: Numbers may not total exactly due to rounding.

Notes to the Basic Financial Statements

Overlay Program

WRS employs a manager to provide an overlay program to ensure the system's major asset classes remain within a certain percentage of their targeted weights. Market movements can lead to significant implicit tilts within the portfolio. For example, a sharp decline in equities will many times be accompanied by stability within fixed income. Consequently, the equity position will decrease as a percentage of assets while fixed income will increase. This causes an implicit tilt towards fixed income. The overlay program brings these implicit tilts back within an acceptable band and is a cost effective way to rebalance assets.

	Financial Report	Overlay Program	Combined	% Asset Under Management	% Category
Tactical Cash					
Total Tactical Cash	\$510,440,504	\$(116,211,767)	\$394,228,737	3.65%	100.00%
Fixed Income					
Marketable Fixed Income					
Corporate Bonds/Credit	573,328,133	-	573,328,133	5.31%	25.44%
Emerging Markets Debt	18,180,938	-	18,180,938	0.17%	0.81%
Mortgages/ABS	36,244,656	-	36,244,656	0.34%	1.61%
TIPS	2,965,896	-	2,965,896	0.03%	0.13%
Treasury/Agencies/Governments	876,075,789	256,244,345	1,132,320,134	10.48%	50.25%
Total Marketable Fixed Income	1,506,795,412	256,244,345	1,763,039,756	16.32%	78.24%
Private Debt					
Total Private Debt	490,233,305	-	490,233,305	4.54%	21.76%
Total Fixed Income	1,997,028,717	-	2,253,273,061	20.86%	100.00%
Equity					
Marketable Equity					
Domestic	2,315,799,329	(74,045,740)	2,241,753,589	20.75%	43.84%
Emerging Markets	712,865,945	27,285,175	740,151,120	6.85%	14.47%
International Developed	1,145,610,921	(93,272,013)	1,052,338,908	9.74%	20.58%
Total Marketable Equity	4,174,276,195	(140,032,578)	4,034,243,617	37.34%	78.89%
Private Equity					
Total Private Equity	1,079,769,126	-	1,079,769,126	9.99%	21.11%
Total Equity	5,254,045,321	-	5,114,012,743	47.34%	100.00%
Marketable Alternatives					
Absolute Return	651,462,651	-	651,462,651	6.03%	34.23%
Enhanced Fixed Income	67,061,214	-	67,061,214	0.62%	3.52%
GAA	323,728,473	-	323,728,473	3.00%	17.01%
Opportunistic/Directional	860,954,357	-	860,954,357	7.97%	45.24%
Total Marketable Alternatives	1,903,206,695	-	1,903,206,695	17.62%	100.00%
Private Real Assets					
Other Real Assets	800,297,438	-	800,297,438	7.41%	70.29%
Real Estate	338,272,423	-	338,272,423	3.13%	29.71%
Total Private Real Assets	1,138,569,861	-	1,138,569,861	10.54%	100.00%
Total Securities & Cash	10,803,291,097	-	10,803,291,097	100.00%	100.00%
Net Receivables/Payables					
Total Net Receivables/Payables	3,202,695	-	3,202,695		
Total Assets	\$10,806,493,792	\$-	\$10,806,493,792		

Notes to the Basic Financial Statements

Custodian Credit Risk

Custodian credit risk for deposits of the defined benefit plans is the risk that in the event of a bank failure, the Systems' and Plans' deposits may not be returned to them. Deposits subject to this risk are those other than the \$26.5 million of deposits held by the State Treasurer. These deposits totaling \$510.4 million are held by the System's primary custodian and are collateralized by commercial paper, repurchase agreements and money market mutual funds held by the primary custodian or its agents in accounts in the name of the Wyoming Retirement System.

Deposits are presented in the basic financial statements at cost plus accrued interest which is also the fair value. At December 31, 2021, the carrying amount of all deposits and the corresponding bank balance totaled approximately \$536.9 million.

Investment securities within the defined benefit plans are exposed to custodian credit risk if the securities are uninsured, are not registered in the name of the System and are held by either the counterparty or the counterparty's trust department or agent, but not in the System's name. Consistent with the System's investment policy, all investments are held by the System's primary custodian and registered in the System's name except for approximately \$4.97 billion held in commingled vehicles outside of Northern Trust's custody.

The System does not have a formal deposit or investment policy for custodian credit risk.

Concentration of Credit Risk

The System expects the domestic investment managers to maintain diversified portfolios by sector and by issuer using the following guidelines in accordance with the System's investment policies.

The policy of the Board is to discourage equity investment managers from holding positions in a single issue whose fair value exceeds 5% of the portfolio. However, exceptions can be made if this percentage of the overall portfolio is exceeded as a consequence of long held positions whose value has grown due to their strong returns. At December 31, 2021, the System did not have any securities that breached this threshold. The board does not have any formal policy relating to any specific investment related risk.

For the exposure limitations of the System, the maximum allocation to a single active strategy at a manager/firm/general partner, shall not exceed 10 percent of the total fair value of the Fund. The maximum allocation to a single manager/firm/general partner, including passive strategy exposure, in aggregate, shall not exceed 25 percent of the total fair value of the Fund. Maximum exposure to a manager/firm in active strategies is 15 percent.

The Board authorizes the use of derivative instruments to control portfolio risk, implement asset allocation changes in a cost-effective manner and reduce transaction costs or taxes. When appropriate, investment managers may be given permission to use derivatives for hedging, including cross hedging of currency exposures, creation of market exposures, and management of country and asset allocation exposure. Investment managers are prohibited from using derivatives or synthetic securities that expose WRS to potentially high price volatility or are either speculative or leveraged, or whose marketability may be severely limited.

The purpose of real estate investments is to provide counter cyclical returns, current income and inflation protection. Funds considered will be comprised primarily of highly leased properties with reasonable income components. The real estate portfolio, in aggregate, shall be diversified by property type, property size, geographic region, and economic sector exposure. Leverage shall be used sparingly.

Notes to the Basic Financial Statements

Rating	Amount
AAA	\$991,796,915
AA	128,687,609
A	21,871,008
BBB	52,970,155
BB	32,403,148
B	58,067,669
Below B	26,180,803
N/A	377,869,545
STIF	257,319,463
Total	\$1,947,166,315

Credit risk - Debt Securities

Fixed income investment grade credits carry an equivalent of a Standard & Poor's rating of BBB or better. Managers of accounts holding publicly traded Non-Government debt should select and manage them to assure an appropriate balance in maturity, quality, marketability and adequate diversification with respect to industry and issues.

High yield investments are defined by the System as those debt securities, which carry a Standard & Poor's quality rating of BB or lower. Fund managers who manage these investments should structure a well-diversified portfolio with respect to rating, maturity, duration, yield, industry and issuer with the intent of minimizing the risk of losses in any single security.

The distribution of quality rating of debt securities in the System's investment portfolio at fair value as of December 31, 2021 is shown to the left:

Interest Rate Risk

The System is also exposed to investment fair value loss arising from increased interest rates. Duration is a measure of the sensitivity of a debt security's value to rate changes. It is calculated using the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. More specifically, it is the approximate percentage change in value for a 1% change in rates. The System's investment policy guidelines require that the investment grade debt securities portfolio be maintained with weighted-average portfolio duration within two years of the benchmark duration. No specific investment guidelines exist for other debt securities subject to interest rate risk not included in the investment grade portfolio.

At December 31, 2021 the following table shows investments by investment type, amount and the effective weighted duration:

Category	\$ Amount	% Amount	Contribution to Duration
Asset-Backed Securities	\$256,126,874	17.02%	0.4027
Bank Loans	29,234,649	1.94%	0.0327
Commercial Mortgage-Backed	12,579,318	0.84%	0.0253
Corporate Bonds	177,185,005	11.78%	0.6719
Corporate Convertible Bonds	515,765	0.03%	0.0006
Government Agencies	98,803,493	6.57%	0.4060
Government Bonds	681,116,614	45.27%	3.9853
Government Mortgage-Backed Securities	146,100,519	9.71%	0.6393
Gov't-issued Commercial Mortgage-Backed	365,690	0.02%	0.0016
Index Linked Government Bonds	2,965,896	0.20%	0.0116
Municipal/Provincial Bonds	1,999,777	0.13%	0.0094
Non-Government Backed C.M.O.s	3,186,108	0.21%	0.0098
Short Term Bills and Notes	94,466,475	6.28%	0.0184
Total	\$1,504,646,183	100.00%	

Notes to the Basic Financial Statements

Deferred Compensation (457) Plan Cash and Investments

The cash and investments held within the 457 Plan are comprised of the aggregate holdings of the participants' accounts that are invested in different mutual fund type investment options and cash held on deposit with the State collected from participants as fees for the purposes of plan administration. Plan participants determine the holdings of their individual participant accounts; therefore, the exposure of each participant to the investment risks discussed above is determined by that individual's risk tolerance. Additionally, the risks of the investment portfolios associated with each of the investment options are determined by the mutual fund manager and may vary depending on their risk tolerances and performance objectives.

Limited Partnerships

The system has invested in limited partnerships. As of December 31, 2021 the fair value of these investments was \$3,714,204,282. The limited partnerships invest in a variety of investments.

Securities Lending

Under the authority of the governing statutes and in accordance with policies set by the Board of Trustees, the System lends its securities to broker-dealers with a simultaneous agreement to return the collateral for the securities in the future. The System's custodian is authorized to lend available securities to authorized broker-dealers subject to the receipt of acceptable collateral. The System lends securities such as common stock, U.S. Treasury and corporate bonds and receives collateral in the form of either cash or other securities similar to the type on loan. Borrowers are required to provide collateral amounts of 102% of the fair value of loaned U.S. securities plus accrued interest and 105% of the fair value of loaned non-U.S. securities plus accrued interest. The System cannot pledge or sell collateral securities received until and unless a borrower defaults. Securities held as collateral at year-end are not subject to the preceding disclosures of custodian credit risk as they are held in a collateral investment pool. At year-end, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. Contracts with the lending agents require them to indemnify the System if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay the System for income distributions by the securities' issuers while the securities are on loan. Net securities lending income during the year ended December 31, 2021 was \$952,190.

Cash and U.S. Government securities were provided as collateral for the securities lent. At December 31, 2021, the carrying amount and fair value of the securities on loan was approximately \$577,163,432. The underlying collateral for these securities had a fair value of approximately \$590,613,806. The Fair Value of Loaned Securities Collateralized by Non-Cash Collateral of approximately \$99,043,369 and Fair Value of Non Cash Collateral of approximately \$101,659,426 of the total collateral. Because these securities cannot be sold or pledged unless the borrower defaults, this collateral and related liability is not presented on the statement of net position. The remaining collateral represents cash collateral that is invested and is classified according custodian credit risk. It is included as an asset on the statement of net position with an offsetting liability for the return of collateral.

Notes to the Basic Financial Statements

Foreign Currency Risk

The System also expects its International Security Investment Managers to maintain diversified portfolios by currency denomination; however, no formal policy limits have been established. At December 31, 2021, the System's exposure to foreign currency risk for its short-term and equity securities is as follows:

Exposures by Currency as of December 31, 2021

Currency	Cash	Investments	Derivatives & Payables/ Receivables	Total
Argentine peso	\$2,626	\$-	\$-	\$2,626
Australian dollar	142,597	27,211,003	(34,500,262)	(7,146,662)
Brazilian real	7,811	761,959	40,349	810,119
British pound sterling	(386,486)	112,940,635	(134,113,729)	(21,559,580)
Canadian dollar	(57,776)	984,922	2,746,454	3,673,600
Chilean peso	3,623	1,615,239	-	1,618,862
Danish krone	36,843	14,649,484	1,080,649	15,766,976
Euro	(915,054)	254,132,889	(287,604,768)	(34,386,933)
HK offshore Chinese Yuan Renminbi	-	1,239,013	-	1,239,013
Hong Kong dollar	62,370	31,480,265	(28,267,822)	3,274,813
Indonesian rupiah	-	6,390,798	-	6,390,798
Japanese yen	1,296,365	251,828,310	(235,540,627)	17,584,048
Malaysian ringgit	45,245	-	-	45,245
Mexican peso	2,947	1,777,116	-	1,780,063
New Israeli shekel	40,852	2,901,937	(2,914,065)	28,724
New Zealand dollar	30,183	5,519,308	-	5,549,491
Norwegian krone	26,515	3,017,331	(4)	3,043,842
Philippine peso	-	413,574	-	413,574
Polish zloty	-	417,525	1,786	419,311
Russian ruble	-	-	1,139,857	1,139,857
Singapore dollar	25,494	5,320,575	(10,426,919)	(5,080,850)
South Korean won	-	4,179,520	16,115	4,195,635
Swedish krona	(172,485)	22,679,717	(26,712,948)	(4,205,716)
Swiss franc	124,245	85,756,135	(60,591,185)	25,289,195
Thai baht	-	338,388	-	338,388
TOTAL	\$315,915	\$835,555,643	\$(815,647,119)	\$20,224,439

Notes to the Basic Financial Statements

Derivatives

The System permits the use of derivatives by its international equity and external fixed income managers. Examples of derivative instruments permitted, but not limited to, are foreign exchange contracts, financial futures, forwards, options, swaps and swaptions. All derivative instruments utilized are considered Investment derivative instruments as defined in GASB 53 Accounting and Financial Reporting for Derivative Instruments.

The fair value balances and notional amounts of derivative instruments outstanding at December 31, 2021, classified by instrument in fair value are as follows:

The Wyoming Retirement System Derivative Instruments - Summary Disclosure					
As of 31 December 2021					
Category	Sub-Category	Currency	Bought/Sold	Fair Value	Notional Value
Futures	Equity Contracts			\$-	\$(136,622,179)
	Interest Rate Contracts			-	281,139,017
Options	Options on Futures			12,648	-
	Swaption			(4,871)	-
Rights/Warrants	Equity Contracts			335,548	-
Swaps	Exchange Cleared Swaps			605,981	-
	Swaps			(1,380)	-
Forwards	Foreign Exchange Contracts	Australian dollar	Bought	2,989	2,727,322
	Foreign Exchange Contracts	Australian dollar	Sold	307,321	(37,252,790)
	Foreign Exchange Contracts	British pound sterling	Bought	23,961	3,275,637
	Foreign Exchange Contracts	British pound sterling	Sold	179,491	(137,806,550)
	Foreign Exchange Contracts	Canadian dollar	Bought	(19,693)	3,510,585
	Foreign Exchange Contracts	Canadian dollar	Sold	6,748	(746,636)
	Foreign Exchange Contracts	Euro	Bought	(17,328)	4,728,487
	Foreign Exchange Contracts	Euro	Sold	1,563,839	(295,202,492)
	Foreign Exchange Contracts	Hong Kong dollar	Bought	218	2,429,489
	Foreign Exchange Contracts	Hong Kong dollar	Sold	66,453	(30,940,172)
	Foreign Exchange Contracts	Japanese yen	Bought	(20,784)	1,447,500
	Foreign Exchange Contracts	Japanese yen	Sold	3,692,348	(237,746,514)
	Foreign Exchange Contracts	New Israeli shekel	Bought	(3)	2,162
	Foreign Exchange Contracts	New Israeli shekel	Sold	(103,020)	(2,917,020)
	Foreign Exchange Contracts	Russian ruble	Bought	(16,161)	1,139,857
	Foreign Exchange Contracts	Singapore dollar	Bought	29,142	2,094,921
	Foreign Exchange Contracts	Singapore dollar	Sold	(42,894)	(12,530,465)
	Foreign Exchange Contracts	Swedish krona	Bought	7,115	1,113,298
	Foreign Exchange Contracts	Swedish krona	Sold	893,046	(27,813,788)
	Foreign Exchange Contracts	Swiss franc	Sold	(905,149)	(62,841,493)
Total	Foreign Exchange Contracts	United States dollar	Bought	-	851,456,104
	Foreign Exchange Contracts	United States dollar	Sold	-	(22,479,798)
				\$6,595,567	\$150,164,479

Note: Numbers may not total due to rounding.

Notes to the Basic Financial Statements

Derivative Risks

Credit, interest rate and foreign currency risks affecting derivatives and other applicable investments are addressed in previous sections of Note 3. These risks, applicable to other fixed income and foreign investments, are not substantially different from the same risks affecting applicable derivative instruments.

In addition to the principal risks noted above, Forward Foreign Currencies, Credit Default Swaps and Interest Rate Swaps are also subject to counterparty risk. In general, counterparty risk is the risk of loss of an amount expected to be delivered under an agreement in the event of the default or bankruptcy of the counterparty. Generally, counterparty risk is controlled through dealing with a number of different counterparties reasonably deemed to be creditworthy by the investment manager.

Derivative - Contingency

Derivative instruments often contain credit-risk-related contingent features that could result in an immediate payment to the counterparty. For example, a material adverse change clause could provide the counterparty with the right to early terminate the derivative agreement. Alternatively, it could provide a basis for renegotiating the agreement if specific events occur, such as a downgrade of the entity's credit rating below investment grade. These provisions may include an obligation to post additional collateral in instances where the credit-risk contingent feature is triggered or the counterparty is provided the right to terminate the agreement early.

Contingent features that could result in an immediate payment from the counterparty include the event of a downgrade of the counterparty below a specified rating, commonly A-/A3. Additionally, the counterparty can request immediate payment in the event assets under management of the portfolio falls by more than 30% in a year or 15% in a month. It is important to note that these contingent features are not compulsory, rather they are voluntary.

Notes to the Basic Financial Statements

Note 4. Fair Value Reporting (GASB 72)

Investment valuation

The Wyoming Retirement System categorizes the fair value measurements of its investments based on the hierarchy established by generally accepted accounting principles. The fair value hierarchy, which has three levels, is based on the valuation inputs used to measure an asset's fair value: Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. In addition, The Wyoming Retirement System has an internal valuation process, which is available upon request.

Investments' fair value measurements are as follows at December 31, 2021 (in millions).

Investments As of 31 December 2021	Fair Value Measurements (in millions):			
	Total Fair Value	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs
Fixed Income				
Corporate Bonds/Credit	\$443.46	\$-	\$440.11	\$3.35
Emerging Markets Debt	18.18	-	18.18	-
Mortgages/ABS	36.24	-	36.20	0.05
TIPS	2.97	-	2.97	-
Treasury/Agencies/ Governments	927.09	-	922.07	5.01
Total Fixed Income	1,427.94	-	1,419.52	8.42
Equity				
Domestic	1,956.04	1,956.04	-	-
Emerging Markets	51.87	51.87	-	-
International Developed	717.55	717.27	-	0.28
Private Equity	-	-	-	-
Total Equity	2,725.46	2,725.18	-	0.28
Marketable Alternatives				
Absolute Return	52.40	52.40	-	-
Opportunistic/Directional	192.96	192.96	-	-
Total Marketable Alternatives	245.36	245.36	-	-
Private Markets				
Real Estate	170.49	170.49	-	-
Total Private Markets	170.49	170.49	-	-
Derivatives				
FX	5.65	-	5.65	-
Options	0.01	0.01	-	-
Rights/Warrants	0.34	0.16	0.17	-
Swaps	0.98	-	0.98	-
Swap Liabilities	(0.37)	-	(0.37)	-
Total Derivatives	6.60	0.17	6.43	-
Total	\$4,575.86	\$3,141.21	\$1,425.95	\$8.70

Note: Numbers may not total due to rounding.

Notes to the Basic Financial Statements

Investments

Investments, including derivative instruments that are not hedging derivatives, are measured at fair value on a recurring basis. Recurring fair value measurements are those that Governmental Accounting Standards Board (GASB) Statements require or permit in the statement of net position at the end of each reporting period. Fair value measurements are categorized based on the valuation inputs used to measure an asset's fair value: Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

Equity securities, including marketable alternatives, categorized as Level 1 are valued based on prices quoted in active markets for those securities. Debt securities categorized as Level 2 are valued using a matrix pricing technique that values securities based on their relationship to benchmark quoted prices. Collateralized debt obligations categorized as Level 3 are valued using consensus pricing. Investment derivative instruments categorized as Level 2 are valued using market approaches that consider, as applicable, benchmark interest rates or foreign exchange rates.

Private markets real estate investments categorized as level 1 relate to real estate investment trust funds that are valued based on prices quoted in active markets.

Opportunistic/Directional: This sub-asset class provides exposure to investment opportunities that will not typically be targeted by traditional managers. These funds will typically have a higher risk/return profile than more heavily hedged funds such as market neutral funds. Fund strategies in this subclass may include: Long/Short (net exposure > 50%), Multistrategy, Distressed Equity, Activist Equity and Convertible Arbitrage.

Enhanced Fixed Income: This sub-asset class provides exposure to fixed income investments that will not typically be targeted by traditional managers, such as marketable distressed fixed income securities. Fund strategies in this subclass may include: Distressed Credit and Fixed Income Arbitrage.

Absolute Return: This sub-asset class provides diversification to the total portfolio and strives to reduce total fund volatility. This area will include investments in a group of skill-based managers using a variety of strategies such as: Global Macro, Long/Short Equity (net exposure < 50%), Managed Futures, Event Driven Risk Arbitrage, and Market Neutral and Dedicated Short Bias. Please see Appendix IV in the IPS for detailed descriptions of the strategies. At any given point in time, the number of managers and types of investments and strategies being utilized may include the entire universe of available investment options. In addition, a variety of marketable alternative strategies may be utilized within this sub-asset class including, but not limited to hedged equity, convertible arbitrage, event driven, relative value, global fixed income/currencies, managed futures, and commodities.

Notes to the Basic Financial Statements

Investments in Entities that Calculate Net Asset Value Per Share

The fair values of investments in certain equity, fixed income, marketable alternatives, and private markets are based on the investments' net asset value (NAV) per share (or its equivalent) provided by the investee. The fair values of investments in certain private equity funds have been determined using recent observable transaction information for similar investments and nonbinding bids received from potential buyers of the investments. Such fair value measurements are as follows at December 31, 2021 (in millions):

Investments	Total NAV-Driven
As of 31 December 2021	Value in Millions
Fixed Income	
Corporate Bonds/Credit	\$129
Private Debt	490
Treasury/Agencies/ Governments	3
Total Fixed Income	622
Equity	
Domestic	227
Emerging Markets	661
International Developed	561
Private Equity	1,080
Total Equity	2,529
Marketable Alternatives	
Absolute Return	599
Enhanced Fixed Income	67
GAA	324
Opportunistic/Directional	688
Total Marketable Alternatives	1,678
Private Markets	
Other Real Assets	800
Real Estate	168
Total Private Markets	968
Total	\$5,797

Note: Numbers may not total due to rounding.

Notes to the Basic Financial Statements

NAV - Redemption Frequency & Redemption Schedule		
Equities	Redemption Frequency	Notice Period
Abbott (Opportunities Fund I, II and III)	15 Years	N/A
Acadian EM Small Cap	Daily	30 Days
Acadian Non-US SC	Daily	30 Days
Adams Street III	10 Years	N/A
AQR	Daily	Day Prior
Burgundy	Daily	Day Prior
Cantillon	Daily	Day Prior
Cevian European	3 Years (On Anniversary)	90 Days
Grove Street (Cloudveil Capital)	12 Years	N/A
Harding Loevner	Daily	7 Days
Highclere	Monthly	10 Business Days
Hillhouse Focused Growth Fund V	10 Years	N/A
Hillhouse Fund V	10 Years	N/A
Hillhouse Healthcare Fund	10 Years	N/A
Nikko	Daily	Day Prior
Polunin	Monthly	7 Days
Sanderson	Monthly	10 Business Days
State Street EM	Daily	2 Days
ValueAct	5 Years (On Anniversary)	90 Days
Victory	Daily	Day Prior
Wellington EM	Weekly	10 Business Days
Fixed Income		
AGL CLO	5 Years	N/A
AGL Meadowlark	8 Years	N/A
Alliance Bernstein	Daily	3 Days
Altum	3 Years (On Anniversary)	90 Days
Beach Point	Daily	10 Days
Benefit Street Partners	3 Years	N/A
Carl Marks Strategic Opportunities Fund II	2 Years	90 days
Carl Marks Strategic Opportunities Fund III	6 Years	N/A
Centerbridge Partners	Quarterly	90 days
Dimensional	Daily	Day Prior
DoubleLine	Daily	Day Prior
Kayne Anderson Mezzanine	10 Years	N/A
Kennedy Lewis Capital Partners	6 Years	N/A
KLCP III	6 Years	N/A
KSL	10 Years	N/A
Oaktree Real Estate Debt	6 Years	N/A
Pathlight	5 Years	N/A
PIMCO - CLO	Daily	Day Prior
Silver Rock	5 Years	N/A
TCI Real Estate Fund III	7 Years	N/A
Tennenbaum Ops Fund VI	10 years	N/A
Tennenbaum Sr. Loan Fund III	10 Years	N/A
Marketable Alternatives		
AQR	Monthly	15 Days
Bridgewater Optimal Portfolio	Quarterly	90 Days
Bridgewater Pure Alpha	Monthly	5 Business Days
Diameter	N/A	N/A
Dorsal	Quarterly	45 Days
Dorsal Special Opportunities Fund	Quarterly	45 Days
GMO GAAR	Monthly	14 Days

Notes to the Basic Financial Statements

NAV - Redemption Frequency & Redemption Schedule (Continued)		
Marketable Alternatives (Continued)		
GMO SGM	Monthly	3 Days
Hillhouse HHLR (Gaoling) Fund	Semi-annual	60 Days
IVA Global	Daily	Day Prior
Janchor Pan-Asian U.S. Feeder Fund	Monthly	60 Days
Janchor Partners, Opportunities. U.S.	N/A	N/A
LFL	Daily	30 Days
Naya	3 Years (On Anniversary)	65 Days
Pershing Square	Daily	Daily
TCI Fund	Quarterly	120 Days
Wind River	Quarterly	95 Days
Private Markets		
Alinda Fund II	10 Years	N/A
Blackstone REP VIII	10 years	N/A
CenterSquare US RE	Daily	30 days
Hamilton Lane (Moran funds I, II and III)	10 Years	N/A
KAREP II	8 Years	N/A
KAREP III	8 Years	N/A
Macquarie Infra Fund II	10 Years	N/A
MS Prime Property Fund	Quarterly	90 days
Orion Fund I	7 Years	N/A
Ridgewood Energy Oil & Gas Fund II	10 Years	N/A
Ridgewood Energy Oil & Gas Fund III	10 Years	N/A
TCI Real Estate Fund III	7 Years	N/A

Note 5. Contributions Required and Contributions Made - Defined Benefit (Pension) Plans

Funding policies for most plans provide for monthly employer and employee contributions at statutorily determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate assets to pay benefits when due. The Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan is based upon a fixed monthly member contribution of \$18.75 or \$37.50 per month plus an appropriation of a portion of state fire insurance premium taxes.

Actuarial valuations are prepared annually for all systems. In the event, based upon the results of the actuarial valuation, present statutory contribution requirements are insufficient to accumulate assets to pay benefits when due, the Wyoming Retirement Board, Volunteer Firefighter, EMT, and Search & Rescue Board, after approval by the Legislature, would revise statutory contribution requirements to maintain the actuarial integrity of the applicable System. For the year ended December 31, 2021, contributions were made in accordance with statutorily determined contribution requirements.

Note 6. Commitments

At December 31, 2021, WRS was committed to the future purchase of investments at an aggregate cost of \$1,892,240,774. As of December 31, 2021, WRS has funded \$3,424,862,676 in commitments, cumulatively.

Sub Asset Class	Unfunded Commitments
Other Real Assets	\$823,449,189
Private Debt	339,424,181
Private Equity	662,320,161
Real Estate	2,720,907
Directional/Oppportunistic	34,326,336
Enhanced Fixed Income	30,000,000
Total	\$1,892,240,774

Notes to the Basic Financial Statements

Note 7. Master Trust

The System has entered into a master trust agreement with Northern Trust. In accordance with the terms of the agreement, in addition to holding System investments in custodian accounts, Northern Trust, as trustee, is authorized at the direction of the System or its investment managers to receive proceeds from investment sales and dividend and interest payments, to disburse funds for purchase of investments, to retire obligations upon maturity or redemption and to execute in the System's name whatever certification is necessary for other investment transactions. In March 2015, a master trust agreement transferred trustee responsibility to Northern Trust.

Note 8. Risk Management and Contingencies

The nature of the System's operations makes it susceptible to lawsuits, legal actions, and other judgments. The System mitigates its risk of material loss from these situations through participation in the State of Wyoming self-insurance program. Wyoming Statute 1-41-103 created the State self-insurance fund to handle liability insurance claims brought against the State. The range of losses financed includes general liability, automobile liability, policy liability, medical malpractice liability and civil rights. The System had no significant changes in coverage from the prior year.

The State generally does not maintain reserves; losses are covered by a combination of appropriations from the State's general fund in the year in which the payment occurs and by assessing State agencies a pro rata share of anticipated claims expenditures for the fiscal year. The Department of Administration and Information estimates a liability for claims against the State as a whole including incurred but not reported claims (IBNR's) but does not make the estimate for each individual department of the State including the System. Consequently, no liability for these claims is reflected in the financial statements of the System. Management believes that any claims that may exist would be immaterial to the System.

At various times, claims and lawsuits are pending against the System. The System is of the opinion that the liability, if any, arising from such claims will not have a materially adverse effect on its financial statements.

Note 9. Capital Assets

The following is a summary of changes in capital assets:

	Balance December 31, 2020	Additions	Deletions	Transfers	Balance December 31, 2021
Leasehold Improvements	\$106,205	\$-	\$-	\$-	\$106,205
Intangible-Internally Generated Software	5,086,740	-	-	-	5,086,740
Equipment	37,162	-	-	-	37,162
Total	5,230,107	-	-	-	5,230,107
Less accumulated depreciation	2,228,779	346,549	-	-	2,575,328
Capital asset, net	\$3,001,328	\$(346,549)	\$-	\$-	\$2,654,779

See the Statement of Fiduciary Net Position on pages 32 and 33, and the Statement of Changes in Fiduciary Net Position on pages 34 and 35. All disposals of Government Operations are completed at the state level. WRS is a division of the State.

Notes to the Basic Financial Statements

Note 10. Net Pension Liability

Actuarial valuation of the ongoing Systems involved estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include the single discount rate, schedule of contributions, changes in net pension liability, net pension liability multiyear, contributions multiyear, investment returns multiyear and schedule of agency contributions and percentage. The schedule of Employers Net Pension Liability presents multi-year trend information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the Required Supplementary information section. The Total Pension Liability as of December 31, 2021, is based on the results of an actuarial valuation date of January 1, 2021, and rolled-forward using generally accepted actuarial procedures.

The net pension liability (i.e., the retirement system's total pension liability determined in accordance with GASB 67 less the fiduciary net position) as of December 31, 2021, is as shown below.

Pension Plan	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability (Asset)	Plan Fiduciary Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
Public Employee	\$10,914,588,147	\$9,389,866,647	\$1,524,721,500	86.03%	\$1,819,927,957	83.78%
State Patrol, Game & Fish Warden and Criminal Investigator	209,629,644	190,045,699	19,583,945	90.66%	24,201,407	80.92%
Volunteer Firefighter, EMT, and Search & Rescue	121,271,309	108,686,819	12,584,490	89.62%	n/a	n/a
Paid Firemen's A	171,214,768	73,443,552	97,771,216	42.90%	65,621	148,993.79%
Paid Firemen's B	203,579,504	218,710,006	(15,130,502)	107.43%	29,973,443	(50.48%)
Judicial	40,750,703	43,795,214	(3,044,511)	107.47%	7,886,295	(38.61%)
Law Enforcement	1,166,890,833	882,352,248	284,538,585	75.62%	166,131,243	171.27%
Air Guard Firefighter	10,925,128	10,627,210	297,918	97.27%	2,157,801	13.81%

n/a - not applicable

Notes to the Basic Financial Statements

The table on this page is presented to show the actuarial methods and assumptions.

GASB 67 Actuarial Methods and Assumptions

Assumptions and Methods	Public Employees Pension Plan	State Patrol Game & Fish Warden and Criminal Investigators Pension Plan	Volunteer Firefighter, EMT, and Search & Rescue Pension Plan	Paid Firemen's Pension Plan A	Paid Firemen's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan
Valuation Date	1/1/2021	1/1/2021	1/1/2021	1/1/2021	1/1/2021	1/1/2021	1/1/2021	1/1/2021
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Amortization Method	Level Percentage of Payroll Closed	Level Percentage of Payroll Closed	Level Dollar Closed	Level Dollar Open	Level Percentage of Payroll Closed	Level Percentage of Payroll Closed	Level Percentage of Payroll Closed	Level Percentage of Payroll Closed
Remaining Amortization Period (Years)	26	27	27	10	24	13	24	27
Asset Valuation Method	5 Year smoothed market	5 Year smoothed market	5 Year smoothed market	5 Year smoothed market	5 Year smoothed market	5 Year smoothed market	5 Year smoothed market	5 Year smoothed market

Actual Assumptions:

Investment Rate of Return	6.80%	6.80%	6.80%	6.80%	6.80%	6.80%	6.80%	6.80%
Projected Salary Increases includes inflation	2.50% to 6.50%	2.50% to 8.50%	n/a	4.50%	4.50% to 7.50%	4.75% to 8.75%	4.75% to 8.75%	4.75% to 8.75%
Assumed Inflation Rate	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Mortality	*	*	*	**	*	*	*	*

* Mortality:

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%

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%

Note: Significant assumptions are based on an experience study that covered a five-year period ending December 31, 2020.

** Mortality:

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%

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%

Disabled Mortality:

RP-2014 Disabled 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%

Note: The mortality assumptions for the Paid Firemen's Pension Plan A are based on an experience study that covered a five-year period ending December 31, 2016. These assumptions were not updated at this time due to the plan changes occurring through legislation. These assumptions are still reasonable for this plan.

Notes to the Basic Financial Statements

Discount Rate

The Discount Rate for all plans with the exception of Law Enforcement Pension Plan was 6.80%. The Discount Rate for the Law Enforcement Pension Plan was 5.17%. The Long-Term Expected Rate of Return used to measure the total pension liability for all plans was 6.80%. The projection of cash flows used to determine the discount rate assumed contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates under Wyoming State Statutes. Based on those assumptions, the Systems' fiduciary net position was projected to be available to make all the 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 payment to determine the total pension liability.

Pension Plan	Single Discount Rate	Long-Term Expected Rate of Return	Long-Term Municipal Bond Rate*	Last year ending December 31 in the 2021 to 2120 projection period for which projected benefit payments are fully funded
Public Employee:	6.80%	6.80%	1.84%	2120
State Patrol, Game & Fish Warden and Criminal Investigator:	6.80%	6.80%	1.84%	2120
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue:	6.80%	6.80%	1.84%	2120
Paid Firemen's A:	6.80%	6.80%	1.84%	2120
Paid Firemen's B:	6.80%	6.80%	1.84%	2120
Judicial:	6.80%	6.80%	1.84%	2120
Law Enforcement:	5.17%	6.80%	1.84%	2063
Air Guard Firefighter:	6.80%	6.80%	1.84%	2120

*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.

In accordance with GASB 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the table below presents the net pension liability (asset) calculated using the discount rate as stated, as well as what the net pension liability (asset) would be if it were calculated using a discount rate that is 1.00% lower or 1.00% higher than the current rate.

Pension Plan	Current Single Discount Rate		
	1% Decrease	Assumption	1% Increase
Pension Plan	5.80%	6.80%	7.80%
Public Employee	\$2,813,092,405	\$1,524,721,500	\$456,735,193
State Patrol, Game & Fish Warden and Criminal Investigator	45,651,723	19,583,945	(2,013,702)
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue	27,264,241	12,584,490	488,308
Paid Firemen's A	112,803,724	97,771,216	84,826,960
Paid Firemen's B	13,032,131	(15,130,502)	(38,478,152)
Judicial	220,851	(3,044,511)	(6,588,037)
Air Guard Firefighter	1,725,901	297,918	(851,594)
	1% Decrease	Assumption	1% Increase
Pension Plan	4.17%	5.17%	6.17%
Law Enforcement	466,884,822	284,538,585	138,486,867

Notes to the Basic Financial Statements

The following table represents the investment return for the year ended December 31, 2021. The plans assumed a long-term investment rate of return of 6.80%. The long-term rate of return is determined through a 4.55% net real rate of return and an inflation rate of 2.25%. The following table represents a comparison of the annual money-weighted rate of return, net of investment expenses compared to the expected net real rate of return.

Pension Plan	Annual Money-Weighted Rate of Return, (net of investment expenses) for the Fiscal Year Ended December 31, 2021	Expected Rate of Return (net of investment expenses)
Public Employee:	17.19%	6.80%
State Patrol, Game & Fish Warden and Criminal Investigator:	17.19%	6.80%
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue:	17.19%	6.80%
Paid Firemen's Pension Plan A:	-0.45%	6.80%
Paid Firemen's Pension Plan B:	17.19%	6.80%
Judicial:	17.19%	6.80%
Law Enforcement:	17.19%	6.80%
Air Guard Firefighter:	17.19%	6.80%

The assumed asset allocation of the plan's portfolio, the long term expected rate of return for each asset class and the expected rate of return is presented arithmetically and geometrically below over a 20-year period.

Notes to the Basic Financial Statements

Schedule of Investment Returns

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate arithmetic expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each major asset class that is included in the pension plans target asset allocation as of January 1, 2021, these best estimates are summarized in the following table.

Schedule of Investment Returns	Target Allocation	Arithmetic Real Return	Arithmetic Nominal Return	Geometric Real Return	Geometric Nominal Return
Tactical Cash	2.00%	-0.50%	1.70%	-0.50%	1.71%
Fixed Income	21.00%	1.63%	3.83%	1.32%	3.52%
Core Plus	5.00%	0.27%	2.47%	0.20%	2.40%
US Government	9.00%	0.25%	2.45%	0.30%	2.50%
Opportunistic Credit	4.00%	2.60%	4.80%	2.05%	4.25%
Private Debt	3.00%	6.73%	8.93%	5.25%	7.45%
Equity	48.50%	7.54%	9.74%	5.63%	7.83%
US Equity	19.00%	5.99%	8.19%	4.60%	6.80%
Developed International	12.70%	6.84%	9.04%	5.30%	7.50%
Emerging Markets	7.80%	8.59%	10.79%	6.20%	8.40%
Private Equity	9.00%	10.91%	13.11%	7.76%	9.96%
Marketable Alternatives	19.00%	4.63%	6.83%	3.74%	5.94%
Private Real Assets	9.50%	5.99%	8.19%	4.84%	7.04%
Private Natural Resources	2.5-7.5%	8.71%	10.91%	6.32%	8.52%
Private Infrastructure	2.5-7.5%	5.95%	8.15%	5.10%	7.30%
Real Estate	2.5-7.5%	4.54%	6.74%	3.90%	6.10%
Total	100.00%	5.44%	7.64%	4.17%	6.37%

The assumed asset allocation of the plan's portfolio, the long-term expected rate of return for each asset class and the expected rate of return is presented arithmetically and geometrically above over a 20-year time frame.

The figures in the above table were supplied by Meketa Investment Group, the investment consulting firm for the Wyoming Retirement System.

Notes to the Basic Financial Statements

Note 11. Legislative Changes

Subsequent to the December 31, 2021 measurement date for this financial report, the Wyoming Legislature convened for their scheduled 2022 session. During this session the Legislature passed one bill which will impact the Wyoming Retirement System (WRS).

Senate File 0039 (Senate Enrolled Act 6) provided a solution to fund the Paid Firemen's Pension Plan A benefits for the remaining life of the Plan. The bill included an appropriation of \$75 million to a newly created Fire A legislative reserve account. In addition, 40% of the annual amount of fire insurance premium tax will be transferred to the Fire A legislative reserve account. WRS will invest the Fire A legislative reserve account with the existing commingled investment pool of the defined benefit plans. The Fire A legislative reserve account will be used to pay for Fire A pension plan benefits once the funds in the existing Paid Firemen's Pension Plan A are exhausted. Any remaining funds in the Fire A legislative reserve account will revert to the general fund when there are no longer any obligations. The bill also removed the 3% annual benefit increase (COLA) after April 1, 2022 and benefits to surviving spouses will only be paid for marriages occurring before April 1, 2022. The effective date of this legislation is April 1, 2022.

Note 12. Disclosure of Subsequent Event

With the passage of Senate File 0039, the Wyoming Retirement System Board (Board) decided to reinvest the assets of the closed Fire A pension plan account in the commingled investment pool of the defined benefit plans as of April 1, 2022. From January 1, 2021 to March 31, 2022, the Fire A pension plan was invested in a more conservative fixed income strategy. The new legislation provides a robust financial solution to the Fire A pension plan account, which was previously threatened with insolvency within 4 to 5 years. This solution was designed to ensure that pension benefits be paid through the remaining life of the plan. Therefore, as of April 1, 2022, the expected rate of return on assets for the Paid Firemen's Pension Plan A was increased from 1.00% to 6.80%.

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Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

Public Employee Pension Plan

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability								
Service Cost	\$214,075,814	\$198,288,435	\$194,455,298	\$195,575,014	\$201,824,345	\$219,893,113	\$217,488,957	\$213,059,299
Interest on the Total Pension Liability	709,100,401	699,015,173	676,902,286	658,459,157	641,429,003	664,368,366	638,943,600	614,848,444
Benefit Changes	-	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	2,186,282	55,560,847	(7,044,256)	(49,213,548)	(56,701,091)	(43,790,701)	(66,191,620)	-
Assumption Changes	173,419,980	-	-	-	290,801,601	-	-	-
Benefit Payments	(632,776,958)	(606,335,323)	(579,179,480)	(547,913,244)	(516,837,260)	(483,482,106)	(450,589,769)	(418,274,815)
Refunds	(19,019,015)	(19,412,612)	(21,308,205)	(18,114,423)	(18,654,997)	(18,127,974)	(19,365,045)	(17,821,799)
Net Change in Total Pension Liability	446,986,504	327,116,520	263,825,643	238,792,956	541,861,601	338,860,698	320,286,123	391,811,129
Total Pension Liability - Beginning	10,467,601,643	10,140,485,123	9,876,659,480	9,637,866,524	9,096,004,923	8,757,144,225	8,436,858,102	8,045,046,973
Total Pension Liability - Ending (a)	10,914,588,147	10,467,601,643	10,140,485,123	9,876,659,480	9,637,866,524	9,096,004,923	8,757,144,225	8,436,858,102
Plan Fiduciary Net Position								
Employer Contributions	\$170,676,891	\$165,984,825	\$157,385,096	\$147,632,510	\$148,746,669	\$151,488,715	\$144,622,373	\$127,929,930
Employee Contributions	169,867,368	165,086,190	157,610,787	151,130,515	149,752,251	152,422,538	153,529,134	137,144,565
Pension Plan Net Investment Income	1,414,900,342	805,893,355	1,251,518,669	(252,571,153)	923,878,089	454,712,993	(67,155,642)	318,184,952
Benefit Payments	(632,776,958)	(606,335,323)	(579,179,480)	(547,913,244)	(516,837,260)	(483,482,106)	(450,589,769)	(418,274,815)
Refunds	(19,019,015)	(19,412,612)	(21,308,205)	(18,114,423)	(18,654,997)	(18,127,974)	(19,365,045)	(17,821,799)
Pension Plan Administrative Expense	(7,725,813)	(7,238,487)	(6,527,091)	(7,033,951)	(6,551,109)	(5,993,529)	(5,097,818)	(5,182,863)
Other	(298,065)	(294,893)	(309,531)	(287,669)	(312,336)	(312,336)	(312,704)	5,539,339
Net Change in Plan Fiduciary Net Position	1,095,624,750	503,683,055	959,190,245	(527,157,415)	680,021,307	250,708,301	(244,369,471)	147,519,309
Plan Fiduciary Net Position - Beginning	8,294,241,897	7,790,558,842	6,831,368,597	7,358,526,012	6,678,504,705	6,427,796,404	6,672,165,875	6,524,646,566
Plan Fiduciary Net Position - Ending (b)	9,389,866,647	8,294,241,897	7,790,558,842	6,831,368,597	7,358,526,012	6,678,504,705	6,427,796,404	6,672,165,875
Net Pension Liability - Ending (a) - (b)	\$1,524,721,500	\$2,173,359,746	\$2,349,926,281	\$3,045,290,883	\$2,279,340,512	\$2,417,500,218	\$2,329,347,821	\$1,764,692,227
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	86.03%	79.24%	76.83%	69.17%	76.35%	73.42%	73.40%	79.08%
Covered Payroll	\$1,819,927,957	\$1,780,467,331	\$1,738,212,750	\$1,741,354,609	\$1,776,377,586	\$1,782,905,215	\$1,744,073,882	\$1,709,412,443
Projected Valuation Payroll	\$1,865,426,156	\$1,824,979,015	\$1,781,668,069	\$1,784,888,475	\$1,820,787,026	\$1,858,678,687	\$1,818,197,022	\$1,782,062,471
Net Pension Liability as a Percentage of Covered Payroll	83.78%	122.07%	135.19%	174.88%	128.31%	135.59%	133.56%	103.23%

Note: Information not available prior to 2014

Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

State Patrol, Game & Fish, Warden & Criminal Investigator Pension Plan

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability								
Service Cost	\$5,202,574	\$4,800,841	\$4,614,951	\$5,078,748	\$4,764,423	\$7,631,559	\$7,511,738	\$5,276,236
Interest on the Total Pension Liability	13,562,409	13,412,219	12,833,018	12,084,646	12,129,167	12,213,078	11,513,094	11,490,234
Benefit Changes	-	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	(2,876,961)	2,116,116	1,453,141	(2,017,522)	(4,722,830)	62,315	(1,821,706)	-
Assumption Changes	4,055,904	-	(15,224,856)	13,137,489	(22,946,444)	(5,188,326)	32,535,213	-
Benefit Payments	(11,744,509)	(11,270,238)	(10,843,842)	(10,260,821)	(9,795,108)	(9,396,540)	(8,926,088)	(8,364,762)
Refunds	(108,604)	(367,992)	(288,795)	(351,230)	(509,361)	(323,328)	(120,906)	(368,093)
Net Change in Total Pension Liability	8,090,813	8,690,946	(7,456,383)	17,671,310	(21,080,153)	4,998,758	40,691,345	8,033,615
Total Pension Liability - Beginning	201,538,831	192,847,885	200,304,268	182,632,958	203,713,111	198,714,353	158,023,008	149,989,393
Total Pension Liability - Ending (a)	209,629,644	201,538,831	192,847,885	200,304,268	182,632,958	203,713,111	198,714,353	158,023,008
Plan Fiduciary Net Position								
Employer Contributions	\$3,590,133	\$3,664,996	\$3,639,164	\$3,529,976	\$3,552,582	\$3,574,065	\$3,355,688	\$3,006,277
Employee Contributions	3,859,144	3,932,180	4,196,524	3,796,060	3,485,756	3,678,081	3,524,286	3,150,559
Pension Plan Net Investment Income	28,404,943	16,114,071	24,466,565	(4,908,329)	17,623,232	8,622,074	(1,199,475)	5,900,708
Benefit Payments	(11,744,509)	(11,270,238)	(10,843,842)	(10,260,821)	(9,795,108)	(9,396,540)	(8,926,088)	(8,364,762)
Refunds	(108,604)	(367,992)	(288,795)	(351,230)	(509,361)	(323,328)	(120,906)	(368,093)
Pension Plan Administrative Expense	(161,144)	(149,733)	(138,770)	(139,377)	(128,991)	(114,832)	(95,918)	(96,479)
Other	(5,973)	(5,841)	(6,039)	(5,536)	(5,897)	(5,897)	(5,850)	229,589
Net Change in Plan Fiduciary Net Position	23,833,990	11,917,443	21,024,807	(8,339,257)	14,222,213	6,033,623	(3,468,263)	3,457,799
Plan Fiduciary Net Position - Beginning	166,211,709	154,294,266	133,269,459	141,608,716	127,386,503	121,352,880	124,821,143	121,363,344
Plan Fiduciary Net Position - Ending (b)	190,045,699	166,211,709	154,294,266	133,269,459	141,608,716	127,386,503	121,352,880	124,821,143
Net Pension Liability - Ending (a) - (b)	\$19,583,945	\$35,327,122	\$38,553,619	\$67,034,809	\$41,024,242	\$76,326,608	\$77,361,473	\$33,201,865
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	90.66%	82.47%	80.01%	66.53%	77.54%	62.53%	61.07%	78.99%
Covered Payroll	\$24,201,407	\$24,074,484	\$23,118,850	\$23,063,176	\$23,641,495	\$23,636,482	\$22,196,930	\$21,817,686
Projected Valuation Payroll	\$24,806,442	\$24,676,346	\$23,696,821	\$23,639,756	\$24,646,258	\$24,641,033	\$23,140,300	\$22,744,938
Net Pension Liability as a Percentage of Covered Payroll	80.92%	146.74%	166.76%	290.66%	173.53%	322.92%	348.52%	152.18%

Note: Information not available prior to 2014

Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability							
Service Cost	\$1,805,233	\$1,501,573	\$1,432,649	\$1,426,154	\$1,412,440	\$1,285,552	\$1,253,883
Interest on the Total Pension Liability	7,891,422	7,885,554	7,685,536	7,474,042	7,372,254	7,761,646	7,520,888
Benefit Changes	-	-	-	-	-	-	21,809,884
Difference between Expected and Actual Experience	151,112	361,487	441,209	(1,397,503)	(3,538,907)	(479,308)	(211,035)
Assumption Changes	646,349	-	-	-	5,273,789	-	(472,252)
Benefit Payments	(7,027,915)	(6,757,505)	(6,466,593)	(6,101,659)	(5,780,647)	(5,506,699)	(4,832,911)
Refunds	(31,778)	(53,161)	(40,182)	(44,163)	(33,242)	(35,162)	(34,719)
Net Change in Total Pension Liability	3,434,423	2,937,948	3,052,619	1,356,871	4,705,687	3,026,029	25,033,738
Total Pension Liability - Beginning	117,836,886	114,898,938	111,846,318	110,489,447	105,783,760	102,757,731	77,723,993
Total Pension Liability - Ending (a)	121,271,309	117,836,886	114,898,938	111,846,318	110,489,447	105,783,760	102,757,731
Plan Fiduciary Net Position							
Fire Insurance Premium Tax and Employer Contributions	\$4,670,469	\$5,509,382	\$3,118,824	\$2,959,943	\$3,290,994	\$3,198,930	\$2,238,612
Employee Contributions	573,113	520,788	437,255	434,522	425,592	459,363	417,406
Pension Plan Net Investment Income	15,709,526	8,848,756	13,701,406	(2,782,682)	10,035,753	4,939,925	(675,297)
Benefit Payments	(7,027,915)	(6,757,505)	(6,466,593)	(6,101,659)	(5,780,647)	(5,506,699)	(4,832,911)
Refunds	(31,778)	(53,161)	(40,182)	(44,163)	(33,242)	(35,162)	(34,719)
Pension Plan Administrative Expense	(95,155)	(86,519)	(89,451)	(91,195)	(88,835)	(80,904)	(73,412)
Other*	(3,410)	(3,290)	(3,455)	(3,201)	(3,453)	(3,453)	(3,470)
Net Change in Plan Fiduciary Net Position	13,794,850	7,978,451	10,657,804	(5,628,435)	7,846,162	2,972,000	(2,963,791)
Plan Fiduciary Net Position - Beginning	94,891,969	86,913,518	76,255,713	81,884,148	74,037,986	71,065,986	74,029,777
Plan Fiduciary Net Position - Ending (b)	108,686,819	94,891,969	86,913,518	76,255,713	81,884,148	74,037,986	71,065,986
Net Pension Liability - Ending (a) - (b)	\$12,584,490	\$22,944,917	\$27,985,420	\$35,590,605	\$28,605,299	\$31,745,774	\$31,691,745
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	89.62%	80.53%	75.64%	68.18%	74.11%	69.99%	69.16%
Covered Payroll	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2
Net Pension Liability as a Percentage of Covered Payroll	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2	N/A See Note 2

*Other includes other funding sources and depreciation expenses.

Note: Information not available prior to 2015

Note 2: This plan is for volunteers and payroll is not applicable.

Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

Paid Firemen's Pension Plan A

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability								
Service Cost	\$54,935	\$65,959	\$40,886	\$61,278	\$122,812	\$147,314	\$162,541	\$188,951
Interest on the Total Pension Liability	11,422,459	8,068,467	10,996,219	12,801,237	12,582,433	12,906,407	12,910,372	13,337,846
Benefit Changes	(52,317,927)	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	(271,077)	(378,431)	(3,107,578)	(1,673,790)	1,188,594	(1,825,288)	(2,479,196)	-
Assumption Changes	(185,384,651)	63,922,039	42,477,504	(11,600,861)	41,599,453	(5,166,271)	9,056,601	99,327,064
Benefit Payments	(16,160,140)	(16,341,689)	(16,093,422)	(15,788,064)	(15,410,878)	(15,075,912)	(14,824,715)	(14,581,980)
Refunds	-	-	-	-	-	-	-	-
Net Change in Total Pension Liability	(242,656,401)	55,336,345	34,313,609	(16,200,200)	40,082,414	(9,013,750)	4,825,603	98,271,881
Total Pension Liability - Beginning	413,871,169	358,534,824	324,221,215	340,421,415	300,339,001	309,352,751	304,527,148	206,255,267
Total Pension Liability - Ending (a)	171,214,768	413,871,169	358,534,824	324,221,215	340,421,415	300,339,001	309,352,751	304,527,148
Plan Fiduciary Net Position								
Employer Contributions	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Employee Contributions	-	-	-	-	-	-	-	-
Pension Plan Net Investment Income	(370,823)	8,557,543	16,923,518	(3,580,279)	15,351,989	8,160,117	(1,107,007)	7,064,066
Benefit Payments	(16,160,140)	(16,341,689)	(16,093,422)	(15,788,064)	(15,410,878)	(15,075,912)	(14,824,715)	(14,581,980)
Refunds	-	-	-	-	-	-	-	-
Pension Plan Administrative Expense	(105,199)	(88,626)	(87,238)	(98,669)	(108,773)	(110,274)	(102,903)	(113,705)
Other	(3,237)	(3,708)	(4,405)	(4,562)	(6,020)	(6,019)	(6,559)	(1,701)
Net Change in Plan Fiduciary Net Position	(16,639,399)	(7,876,480)	738,453	(19,471,574)	(173,682)	(7,032,088)	(16,041,184)	(7,633,320)
Plan Fiduciary Net Position - Beginning	90,082,951	97,959,431	97,220,978	116,692,552	116,866,234	123,898,322	139,939,506	147,572,826
Plan Fiduciary Net Position - Ending (b)	73,443,552	90,082,951	97,959,431	97,220,978	116,692,552	116,866,234	123,898,322	139,939,506
Net Pension Liability - Ending (a) - (b)	\$97,771,216	\$323,788,218	\$260,575,393	\$227,000,237	\$223,728,863	\$183,472,767	\$185,454,429	\$164,587,642
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	42.90%	21.77%	27.32%	29.99%	34.28%	38.91%	40.05%	45.95%
Covered Payroll	\$65,621	\$65,621	\$65,621	\$134,155	\$195,221	\$195,221	\$179,486	\$198,404
Projected Valuation Payroll	\$65,621	\$65,621	\$65,621	\$134,155	\$195,221	\$195,221	\$179,486	\$198,404
Net Pension Liability as a Percentage of Covered Payroll	148,993.79%	493,421.65%	397,091.47%	169,207.64%	114,602.87%	93,982.30%	103,325.47%	82,955.64%

Note: Information not available prior to 2014

Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

Paid Firemen's Pension Plan B

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability								
Service Cost	\$7,168,972	\$6,738,176	\$6,563,232	\$6,259,734	\$8,912,364	\$7,422,919	\$7,421,040	\$5,367,034
Interest on the Total Pension Liability	12,955,679	12,013,695	11,411,054	10,593,553	9,917,806	9,744,190	8,937,063	8,194,197
Benefit Changes	-	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	(310,679)	(3,243,112)	419,684	(6,466,191)	(2,190,045)	(93,703)	120,064	-
Assumption Changes	6,964,448	-	-	(29,804,719)	16,738,920	(1,498,059)	20,165,038	-
Benefit Payments	(6,902,972)	(6,383,271)	(5,921,008)	(5,474,014)	(5,054,595)	(4,343,944)	(3,712,240)	(3,090,522)
Refunds	(70,926)	(85,314)	(35,091)	(64,091)	(120,137)	(71,599)	(75,062)	(62,762)
Net Change in Total Pension Liability	19,804,522	9,040,174	12,437,871	(24,955,728)	28,204,313	11,159,804	32,855,903	10,407,947
Total Pension Liability - Beginning	183,774,982	174,734,808	162,296,937	187,252,665	159,048,352	147,888,548	115,032,645	104,624,698
Total Pension Liability - Ending (a)	203,579,504	183,774,982	174,734,808	162,296,937	187,252,665	159,048,352	147,888,548	115,032,645
Plan Fiduciary Net Position								
Employer Contributions	\$4,508,405	\$4,034,135	\$3,516,198	\$3,356,547	\$3,230,196	\$3,370,961	\$3,273,668	\$3,184,045
Employee Contributions	3,261,693	3,053,576	2,787,467	2,821,872	2,773,651	2,858,418	2,924,752	2,414,435
Pension Plan Net Investment Income	31,992,426	18,023,704	26,111,099	(5,197,809)	17,838,337	8,477,077	(1,158,548)	5,303,618
Benefit Payments	(6,902,972)	(6,383,271)	(5,921,008)	(5,474,014)	(5,054,595)	(4,343,944)	(3,712,240)	(3,090,522)
Refunds	(70,926)	(85,314)	(35,091)	(64,091)	(120,137)	(71,599)	(75,062)	(62,762)
Pension Plan Administrative Expense	(176,943)	(158,826)	(138,634)	(140,922)	(130,931)	(112,132)	(90,438)	(87,431)
Other	(6,688)	(6,345)	(6,402)	(5,708)	(5,700)	(5,700)	(5,444)	264,234
Net Change in Plan Fiduciary Net Position	32,604,995	18,477,659	26,313,629	(4,704,125)	18,530,821	10,173,081	1,156,688	7,925,617
Plan Fiduciary Net Position - Beginning	186,105,011	167,627,352	141,313,723	146,017,848	127,487,027	117,313,946	116,157,258	108,231,641
Plan Fiduciary Net Position - Ending (b)	218,710,006	186,105,011	167,627,352	141,313,723	146,017,848	127,487,027	117,313,946	116,157,258
Net Pension Liability (Asset) - Ending (a) - (b)	\$(15,130,502)	\$(2,330,029)	\$7,107,456	\$20,983,214	\$41,234,817	\$31,561,325	\$30,574,602	\$(1,124,613)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	107.43%	101.27%	95.93%	87.07%	77.98%	80.16%	79.33%	100.98%
Covered Payroll	\$29,973,443	\$28,557,976	\$28,028,382	\$26,811,084	\$28,209,686	\$26,390,481	\$25,986,443	\$24,552,559
Projected Valuation Payroll	\$30,722,779	\$29,271,925	\$28,729,092	\$28,168,395	\$29,408,598	\$27,512,076	\$27,090,867	\$25,596,043
Net Pension Liability as a Percentage of Covered Payroll	-50.48%	-8.16%	25.36%	78.26%	146.17%	119.59%	117.66%	-4.58%

Note: Information not available prior to 2014

Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

Judicial Pension Plan

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
Benefit Changes	-	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	(147,370)	1,225,009	(112,158)	183,937	(620,955)	(229,282)	(372,108)	-
Assumption Changes	1,743,269	-	-	-	2,258,668	-	-	-
Benefit Payments	(1,943,586)	(1,878,084)	(1,720,417)	(1,454,953)	(1,166,423)	(981,321)	(931,621)	(775,805)
Refunds	-	-	-	-	-	-	-	-
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	3,612,443	5,224,148	(1,038,644)	3,549,526	1,679,033	(228,304)	1,038,134
Benefit Payments	(1,943,586)	(1,878,084)	(1,720,417)	(1,454,953)	(1,166,423)	(981,321)	(931,621)	(775,805)
Refunds	-	-	-	-	-	-	-	-
Pension Plan Administrative Expense	(35,804)	(32,231)	(27,764)	(28,405)	(25,315)	(22,090)	(17,833)	(17,117)
Other	(1,347)	(1,284)	(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 (Asset) - 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 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 Payroll	-38.61%	-13.10%	-13.12%	43.18%	-6.21%	-4.88%	0.50%	-21.03%

Note: Information not available prior to 2014

Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

Law Enforcement Pension Plan

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability								
Service Cost	\$40,282,611	\$23,499,547	\$22,866,557	\$26,657,347	\$23,241,982	\$23,339,214	\$22,790,835	\$22,432,708
Interest on the Total Pension Liability	57,437,879	55,065,772	51,970,908	47,238,165	47,200,725	45,945,359	43,444,727	40,636,242
Benefit Changes	-	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	7,679,619	7,869,329	19,861,777	(7,328,715)	(6,691,047)	(3,501,453)	1,710,375	-
Assumption Changes	271,664,329	-	(111,460,988)	94,255,216	51,421,521	-	-	-
Benefit Payments	(40,189,329)	(37,604,942)	(34,850,971)	(32,013,552)	(29,621,411)	(27,873,802)	(25,459,574)	(23,209,837)
Refunds	(3,117,493)	(2,781,885)	(2,425,983)	(3,970,912)	(4,041,082)	(3,491,089)	(4,659,711)	(4,110,605)
Net Change in Total Pension Liability	333,757,616	46,047,821	(54,038,700)	124,837,549	81,510,688	34,418,229	37,826,652	35,748,508
Total Pension Liability - Beginning	833,133,217	787,085,396	841,124,096	716,286,547	634,775,859	600,357,630	562,530,978	526,782,470
Total Pension Liability - Ending (a)	1,166,890,833	833,133,217	787,085,396	841,124,096	716,286,547	634,775,859	600,357,630	562,530,978
Plan Fiduciary Net Position								
Employer Contributions	\$14,567,813	\$14,893,512	\$14,270,844	\$13,781,011	\$13,614,406	\$13,730,305	\$12,706,883	\$13,308,281
Employee Contributions	15,246,586	15,860,478	14,671,686	13,846,377	13,691,494	14,442,190	15,397,475	13,314,132
Pension Plan Net Investment Income	131,614,933	74,478,955	110,793,173	(22,169,139)	77,946,645	37,782,650	(5,371,824)	24,853,352
Benefit Payments	(40,189,329)	(37,604,942)	(34,850,971)	(32,013,552)	(29,621,411)	(27,873,802)	(25,459,574)	(23,209,837)
Refunds	(3,117,493)	(2,781,885)	(2,425,983)	(3,970,912)	(4,041,082)	(3,491,089)	(4,659,711)	(4,110,605)
Pension Plan Administrative Expense	(753,782)	(695,251)	(596,769)	(639,428)	(580,221)	(518,486)	(417,893)	(408,470)
Other	(27,492)	(26,530)	(27,143)	(24,638)	(51,644)	(25,522)	(24,983)	797,291
Net Change in Plan Fiduciary Net Position	117,341,236	64,124,337	101,834,837	(31,190,281)	70,958,187	34,046,246	(7,829,627)	24,544,144
Plan Fiduciary Net Position - Beginning	765,011,012	700,886,675	599,051,838	630,242,119	559,283,932	525,237,686	533,067,313	508,523,169
Plan Fiduciary Net Position - Ending (b)	882,352,248	765,011,012	700,886,675	599,051,838	630,242,119	559,283,932	525,237,686	533,067,313
Net Pension Liability - Ending (a) - (b)	\$284,538,585	\$68,122,205	\$86,198,721	\$242,072,258	\$86,044,428	\$75,491,927	\$75,119,944	\$29,463,665
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	75.62%	91.82%	89.05%	71.22%	87.99%	88.11%	87.49%	94.76%
Covered Payroll	\$166,131,243	\$160,739,444	\$155,851,473	\$151,898,695	\$153,547,078	\$154,779,198	\$150,399,739	\$147,790,833
Projected Valuation Payroll	\$170,284,524	\$164,757,930	\$159,747,760	\$155,696,162	\$160,072,828	\$161,357,314	\$156,791,728	\$154,071,943
Net Pension Liability as a Percentage of Covered Payroll	171.27%	42.38%	55.31%	159.36%	56.04%	48.77%	49.95%	19.94%

Note: Information not available prior to 2014

Required Supplementary Information - Changes In Net Pension Liability

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS - Multiyear

Air Guard Firefighter Pension Plan

Fiscal year ending December 31,	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability								
Service Cost	\$344,841	\$312,751	\$317,202	\$294,146	\$272,169	\$337,474	\$331,123	\$276,305
Interest on the Total Pension Liability	711,065	667,446	624,153	599,634	563,514	554,448	517,889	455,677
Benefit Changes	-	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	193,673	186,135	1,751	161,615	272,060	65,370	201,096	-
Assumption Changes	391,181	-	-	-	311,427	-	-	-
Benefit Payments	(644,223)	(500,565)	(442,888)	(385,232)	(351,120)	(290,609)	(168,220)	(119,541)
Refunds	(178,314)	-	(69,971)	(213,647)	(39,723)	(411,989)	(20,849)	(6,886)
Net Change in Total Pension Liability	818,223	665,767	430,247	456,516	1,028,327	254,694	861,039	605,555
Total Pension Liability - Beginning	10,106,905	9,441,138	9,010,891	8,554,376	7,526,049	7,271,355	6,410,316	5,804,761
Total Pension Liability - Ending (a)	10,925,128	10,106,905	9,441,138	9,010,891	8,554,376	7,526,049	7,271,355	6,410,316
Plan Fiduciary Net Position								
Employer Contributions	\$155,959	\$141,013	\$158,176	\$159,583	\$156,263	\$136,768	\$158,319	\$142,437
Employee Contributions	364,707	329,758	369,907	445,101	367,485	376,685	405,026	335,763
Pension Plan Net Investment Income	1,567,665	897,557	1,300,461	(253,859)	902,109	431,043	(55,411)	260,772
Benefit Payments	(644,223)	(500,565)	(442,888)	(385,232)	(351,120)	(290,609)	(168,220)	(119,541)
Refunds	(178,314)	-	(69,971)	(213,647)	(39,723)	(411,989)	(20,849)	(6,886)
Pension Plan Administrative Expense	(12,936)	(8,048)	(6,972)	(7,141)	(6,431)	(5,731)	(4,637)	(4,312)
Other	(337)	(322)	(327)	(292)	(602)	(301)	(276)	1,085
Net Change in Plan Fiduciary Net Position	1,252,521	859,393	1,308,386	(255,487)	1,027,981	235,866	313,952	609,318
Plan Fiduciary Net Position - Beginning	9,374,689	8,515,296	7,206,910	7,462,397	6,434,416	6,198,550	5,884,598	5,275,280
Plan Fiduciary Net Position - Ending (b)	10,627,210	9,374,689	8,515,296	7,206,910	7,462,397	6,434,416	6,198,550	5,884,598
Net Pension Liability - Ending (a) - (b)	\$297,918	\$732,216	\$925,842	\$1,803,981	\$1,091,979	\$1,091,633	\$1,072,805	\$525,718
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	97.27%	92.76%	90.19%	79.98%	87.23%	85.50%	85.25%	91.80%
Covered Payroll	\$2,157,801	\$2,316,140	\$2,341,404	\$2,154,544	\$1,975,631	\$2,151,997	\$2,124,296	\$1,731,731
Projected Valuation Payroll	\$2,211,746	\$2,374,043	\$2,399,940	\$2,208,407	\$2,059,595	\$2,243,456	\$2,214,578	\$1,805,329
Net Pension Liability as a Percentage of Covered Payroll	13.81%	31.61%	39.54%	83.73%	55.27%	50.73%	50.50%	30.36%

Note: Information not available prior to 2014

Required Supplementary Information - Investment Returns, Contributions

Required Supplementary Information - Investment Returns, Contributions

WRS's success in achieving the 6.80% assumed investment return objective is evaluated on an ongoing basis over reasonably long periods of time (5 to 7 years). The reason for the long-term focus on the return objective is to preclude the temptation towards overreaction to short-term market events that have little to no bearing on long-term asset/liability management. The Board must reconcile its need to evaluate investment policy implementation decisions over shorter periods while maintaining longer-term focus on managing and measuring the portfolio's overall performance relative to the long-term return objective.

Asset Class	Target Allocation	Long-Term Expected Geometric Real Rate of Return	Long-Term Expected Arithmetic Real Rate of Return
Cash	2.00%	-0.50%	-0.50%
Fixed Income	21.00%	1.32%	1.63%
Equity	48.50%	5.63%	7.54%
Marketable Alternatives	19.00%	3.74%	4.63%
Private Real Assets	9.50%	4.84%	5.99%
Total	100.00%	4.17%	5.44%

Schedule of Investment Returns

Last 10 Fiscal (Calendar) Years

	2021	2020	2019	2018	2017	2016	2015	2014
Annual Money-Weighted Rate of Return, Net of Investment Expenses	17.19%	11.03%	18.72%	-3.52%	14.20%	7.53%	-0.44%	4.74%

*This schedule is presented to illustrate the requirement to show information for 10 years.

However, until a full 10-year trend is compiled, WRS will present information for those years for which information is available.

Changes in Actuarial Assumptions and Methods

The assumptions used in the actuarial valuation were adopted at the November 17, 2021 and the February 17, 2022 meetings and were first utilized with the actuarial valuation report for the year beginning January 1, 2021. The new assumptions are reflected in these valuation results. In general, the new assumptions reflect an update to the mortality tables, adjustments to the demographic and salary scale, as well as a lower long-term investment return. The expected rate of return on assets for all plans, except the Fire A pension plan, was decreased from 7.00% to 6.80%. With the decision to reinvest the assets of the Fire A pension plan in the commingled investment pool of the defined benefit plans as of April 1, 2022, the expected rate of return on assets was increased from 1.00% to 6.80%. Other than the changes mentioned above, there have been no actuarial assumption changes or methods since the prior valuation for all plans.

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Required Supplementary Information - Schedule of Contributions

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
Public Employee Pension Plan					
2014	\$183,086,430	\$129,627,747	\$53,458,683	\$1,709,412,443	7.58%
2015	168,411,742	144,622,373	53,789,369	1,744,073,882	8.29%
2016	174,211,753	151,488,715	22,723,038	1,782,905,215	8.50%
2017	167,125,230	148,746,669	18,378,561	1,776,377,586	8.37%
2018	191,677,662	147,632,510	44,045,152	1,741,354,609	8.48%
2019	207,518,684	157,385,096	50,133,588	1,738,212,750	9.05%
2020	219,815,919	165,984,825	53,831,094	1,780,467,331	9.32%
2021	212,378,768	170,676,891	41,701,877	1,819,927,957	9.38%
State Patrol, Game & Fish, Warden & Criminal Investigator Pension Plan					
2014	\$4,037,681	\$3,077,515	\$960,166	\$21,817,686	14.11%
2015	3,784,380	3,355,688	428,692	22,196,930	15.12%
2016	4,097,473	3,574,065	523,408	23,636,482	15.12%
2017	4,041,445	3,552,582	488,863	23,641,495	15.03%
2018	3,607,303	3,529,976	77,327	23,063,176	15.31%
2019	3,997,559	3,639,164	358,395	23,118,850	15.74%
2020	4,345,242	3,664,996	680,246	24,074,484	15.22%
2021	4,026,853	3,590,133	436,720	24,201,407	14.83%
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan					
2015	\$1,139,454	\$2,238,612	\$(1,099,158)	N/A	N/A
2016	3,128,272	3,198,930	(70,658)	N/A	N/A
2017	2,923,585	3,290,994	(367,409)	N/A	N/A
2018	3,275,465	2,959,943	315,522	N/A	N/A
2019	3,543,372	3,118,824	424,548	N/A	N/A
2020	3,669,138	5,509,382	(1,840,244)	N/A	N/A
2021	3,318,686	4,670,469	(1,351,783)	N/A	N/A
Paid Firemen's Pension Plan A					
2014	\$9,458,093	\$-	\$9,458,093	\$198,404	0.00%
2015	9,714,697	-	9,714,697	179,486	0.00%
2016	10,663,740	-	10,663,740	195,221	0.00%
2017	11,734,389	-	11,734,389	195,221	0.00%
2018	15,597,369	-	15,597,369	134,155	0.00%
2019	16,974,397	-	16,974,397	65,621	0.00%
2020	18,379,604	-	18,379,604	65,621	0.00%
2021	41,595,929	-	41,595,929	65,621	0.00%

* Includes other funding sources but excludes member redeposits and member service purchase contributions.

In addition, the actual contribution equals the contractually required contribution.

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

Note: Information is not available before 2014.

Required Supplementary Information - Schedule of Contributions

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
Paid Firemen's Pension Plan B					
2014	\$3,273,329	\$3,184,045	\$89,284	\$24,552,559	12.97%
2015	3,275,448	3,273,668	1,780	25,986,443	12.60%
2016	3,420,716	3,370,961	19,755	26,390,481	12.77%
2017	3,496,053	3,230,196	265,857	28,209,686	11.45%
2018	4,221,146	3,356,547	864,599	26,811,084	12.52%
2019	4,760,014	3,516,198	1,243,816	28,028,382	12.55%
2020	4,694,424	4,034,134	660,290	28,557,976	14.13%
2021	4,547,521	4,508,405	39,116	29,973,443	15.04%
Judicial Pension Plan					
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%
Law Enforcement Pension Plan					
2014	\$11,812,078	\$13,308,281	\$(1,496,203)	\$147,790,833	9.00%
2015	11,708,248	12,706,883	(998,635)	150,399,739	8.45%
2016	12,063,684	13,730,305	(1,666,621)	154,779,198	8.87%
2017	11,623,441	13,614,406	(1,990,965)	153,547,078	8.87%
2018	14,493,422	13,781,011	712,411	151,898,695	9.07%
2019	16,754,321	14,270,844	2,483,477	155,851,473	9.16%
2020	18,231,644	14,893,512	3,338,132	160,739,444	9.27%
2021	18,309,732	14,567,813	3,741,919	166,131,243	8.77%
Air Guard Firefighter Pension Plan					
2014	\$13,694	\$143,582	\$(129,888)	\$1,731,731	8.29%
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%

* Includes other funding sources but excludes member redeposits and member service purchase contributions.

In addition, the actual contribution equals the contractually required contribution.

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

Note: Information is not available before 2014.

Other Supplementary Information - Administrative & Investment Expense

OTHER SUPPLEMENTARY INFORMATION

SCHEDULE OF ADMINISTRATIVE AND INVESTMENT EXPENSES

Year Ending December 31, 2021

	Defined Benefit Plans	457 Plan	Total
Personnel Services:			
Staff & Board Salaries	\$3,671,633	\$317,327	\$3,988,960
Employer Paid Benefits	1,501,343	133,398	1,634,741
Total Personnel Services	5,172,976	450,725	5,623,701
Miscellaneous:			
Utilities	6,306	799	7,105
Postage and Shipping	29,704	7,695	37,399
Dues and Licenses	275,764	6,264	282,028
Advertising-Promotional	10,576	1,330	11,906
Travel	25,729	18,591	44,320
Board Travel	8,045	606	8,651
Office Supplies	26,412	5,045	31,457
Real Property Rental	575	43	618
Equipment Rental	4,849	-	4,849
External Maintenance Contracts	97,410	6,027	103,437
Total Miscellaneous	485,370	46,400	531,770
Communication:			
Data Services	319,511	-	319,511
Telecommunications	48,709	6,490	55,199
Total Communication	368,220	6,490	374,710

Other Supplementary Information - Administrative & Investment Expense

OTHER SUPPLEMENTARY INFORMATION (Continued)			
SCHEDULE OF ADMINISTRATIVE AND INVESTMENT EXPENSES			
Year Ending December 31, 2021			
Professional Services:			
Advisory Services	34,738	-	34,738
Auditing Services	80,073	6,027	86,100
Actuarial Services	313,143	-	313,143
Information Services	39,021	1,445	40,466
Disability Claims Services	76,675	-	76,675
Investment Consulting Services	285,000	123,600	408,600
IT Project Services	1,038,885	4,970	1,043,855
Legal Services	88,722	-	88,722
Printing Services	15,808	4,860	20,668
Temporary Employment Services	1,858	19,592	21,450
Other Contracted Services	400	438	838
Space Rental	348,883	26,260	375,143
State of Wyoming - Cost Allocation	717,004	53,968	770,972
Total Professional Services	3,040,210	241,160	3,281,370
Total Administration Expenses	9,066,776	744,775	9,811,551
Total Depreciation Expense	346,549	-	346,549
Investment Fees:*			
Investment Advisor Fees	1,598,101	-	1,598,101
Custodial Service Fees	1,166,444	-	1,166,444
Record Keeping Fees	-	730,111	730,111
Security Lending Agent Fees	167,709	-	167,709
Total Investment Fees	2,932,254	730,111	3,662,365
Total Administrative Expenses & Investment Fees	\$12,345,579	\$1,474,886	\$13,820,465

* Investment Manager Fees are not included in this schedule. See Schedule of Fees and Commissions by Investment Type located within the Investment Section on page 100.

Other Supplementary Information - Deferred Compensation Net Position

OTHER SUPPLEMENTARY INFORMATION

DEFINED CONTRIBUTION PLAN

COMBINING SCHEDULE OF PARTICIPANT AND ADMINISTRATIVE NET POSITION

December 31, 2021

	Administrative Account	Plan Participant Balances	Eliminations	Total
Assets				
Cash and Short-Term Investments:				
Cash with State Treasurer	\$456,295	\$-	\$-	\$456,295
Domestic Liquidity - Outside Banks	2,520,203	13,913,586	-	16,433,789
	<u>2,976,498</u>	<u>13,913,586</u>	<u>-</u>	<u>16,890,084</u>
Receivables				
Employee Contributions	-	383,624	-	383,624
Participant Fee Receivable	396,875	-	396,875	-
Rebate and Fee Income Receivable	1,895,895	-	-	1,895,895
	<u>2,292,770</u>	<u>383,624</u>	<u>396,875</u>	<u>2,279,519</u>
Investments, at Fair Value				
Fixed Income	-	342,973,909	-	342,973,909
Equities	-	670,756,193	-	670,756,193
Alternatives	-	19,205,838	-	19,205,838
Investment Contracts	-	6,676	-	6,676
Self Directed Brokerage Investments	-	5,010,995	-	5,010,995
	<u>-</u>	<u>1,037,953,611</u>	<u>-</u>	<u>1,037,953,611</u>
Total Assets	5,269,268	1,052,250,821	396,875	1,057,123,214
Liabilities				
Participant Fee Payable	-	396,875	396,875	-
Administrative & Consulting Fees Payable	5,828	-	-	5,828
Total Liabilities	5,828	396,875	396,875	5,828
Net Position Held in Trust for Pension Benefits	\$5,263,440	\$1,051,853,946	\$-	\$1,057,117,386

Other Supplementary Information - Deferred Compensation Change in Net Position

OTHER SUPPLEMENTARY INFORMATION

(Continued)

DEFINED CONTRIBUTION PLAN

COMBINING SCHEDULE OF CHANGES IN PARTICIPANT AND ADMINISTRATIVE NET POSITION

Year Ended December 31, 2021

	Administrative Account	Plan Participant Balances	Eliminations	Total
Additions				
Member Contributions	\$-	\$54,167,789	\$-	\$54,167,789
Administrative Revenue	1,507,161	-	1,507,161	-
Investment Income:				
Net Appreciation in Fair Value of Investments	-	123,950,900	-	123,950,900
Interest and Dividends	212,327	2,872,278	-	3,084,605
Total Investment Income	1,719,488	180,990,967	1,507,161	181,203,294
Deductions				
Benefits Paid/Distributions	-	48,000,402	-	48,000,402
Administrative Expenses	744,775	-	-	744,775
Record Keeping	730,111	-	-	730,111
Participant Fees Assessed	-	1,507,161	1,507,161	-
Total Expenditures	1,474,886	49,507,563	1,507,161	49,475,288
Net Increase	244,602	131,483,404	-	131,728,006
Net Position Held in Trust for Pension Benefits				
Beginning of Year	5,018,838	920,370,542	-	925,389,380
End of Year	\$5,263,440	\$1,051,853,946	\$-	\$1,057,117,386

Independent Auditor's Report on Internal Control and Compliance



Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Board of Trustees
Wyoming Retirement System
Cheyenne, Wyoming

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Wyoming Retirement System (WRS), a fiduciary fund of the state of Wyoming as of and for the year ended December 31, 2021, and the related notes to the financial statements, which collectively comprise WRS's basic financial statements, and have issued our report thereon dated June 21, 2022.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered WRS's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of WRS's internal control. Accordingly, we do not express an opinion on the effectiveness of WRS's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that have not been identified.

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Independent Auditor's Report on Internal Control and Compliance

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether WRS's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

The image shows a handwritten signature in black ink that reads "Eide Bailly LLP". The signature is written in a cursive, professional style.

Boise, Idaho
June 21, 2022

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Annual Comprehensive Financial Report 2021

INVESTMENT SECTION

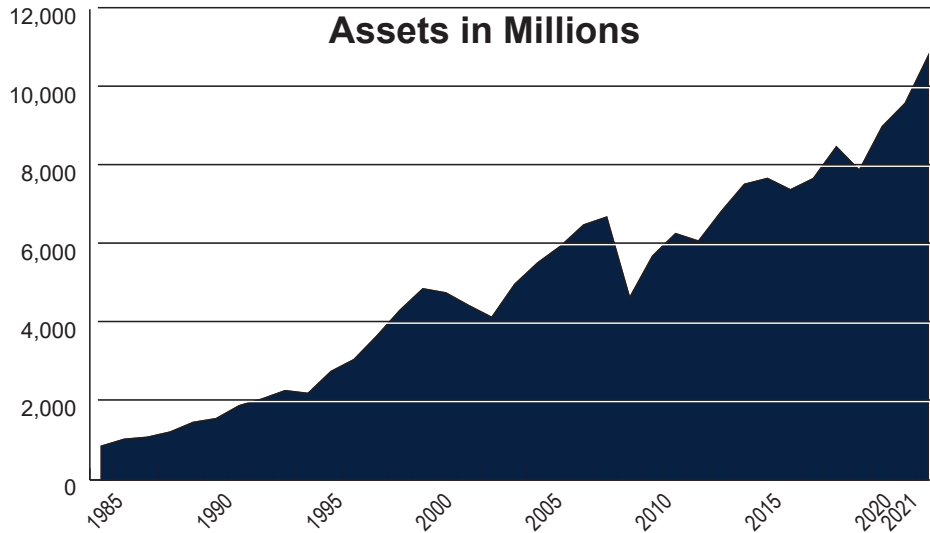


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Total Plan Investments

The following section has been compiled by staff using reports supplied by Northern Trust, Meketa Investment Group, and internally generated documents for investment activities through December 31, 2021. The investment performance is a time-weighted rate of return methodology based upon fair value.

Total Plan investments as of December 31, 2021 were \$10,806,493,792, up \$1,202 million for the calendar year.



Assets (\$ Million)

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
4,143.5	4,987.7	5,534.7	5,961.7	6,500.0	6,700.0	4,643.1	5,707.0	6,278.1	6,088.2
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
6,849.0	7,536.6	7,685.5	7,395.4	7,683.0	8,490.7	7,894.0	9,009.0	9,604.0	10,806.0

Investment Performance

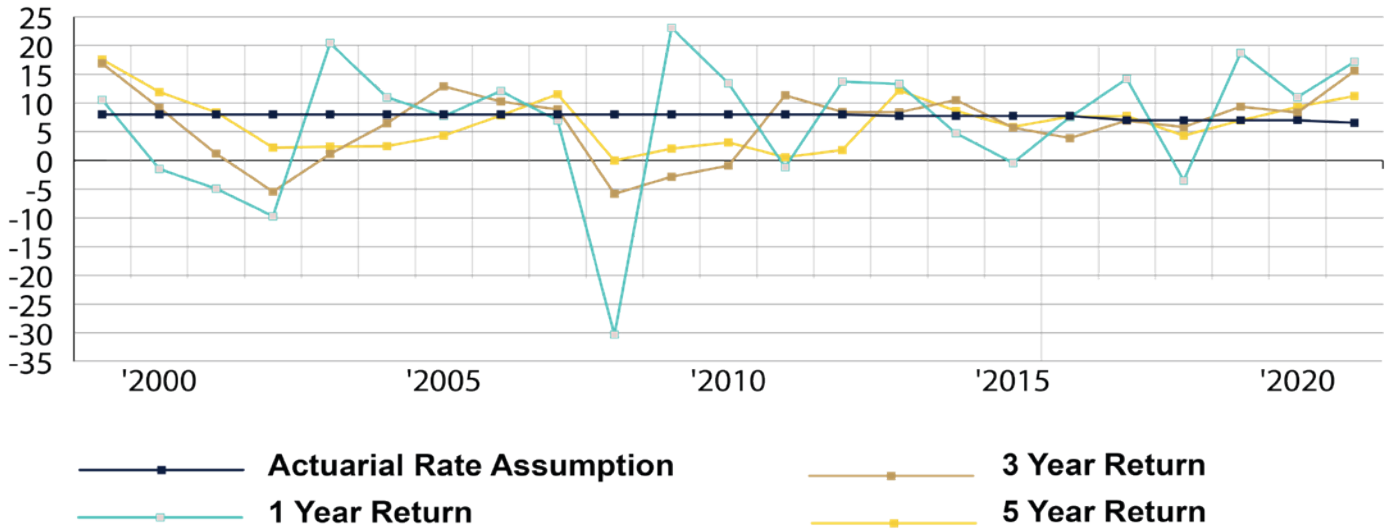
The WRS investment portfolio generated a one-year return for the year ended December 31, 2021 of 17.19% (net of fees). This compares to a return of 14.57% for the blended benchmark (described in the Management Discussion and Analysis section) and 8.86 % for a 60% MSCI ACWI Net Equity/40% Barclays Multiverse Index. The WRS portfolio ranked in the 18th percentile for 2021 as measured against its peer group. WRS's assumed investment rate of return was 6.80% in 2021.

For the three-year period ending December 31, 2021, the portfolio generated an annualized net return of 15.60%. Over that same period, the investment return of the benchmark was 13.77% and the peer group median return was 14.69%. For the five-year period ending December 31, 2021, WRS generated an annualized return of 11.22%, compared to a benchmark return of 10.12% and a peer group median return of 10.94%.

Total Return - Net of Fees

Asset allocation represents the selection of a course of action for the investment portfolio based on an estimate of future returns and risks associated with investment objectives.

Total Return - Net of Fees



Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Actuarial Rate Assumption	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
1 Year Return	-9.70%	20.41%	11.00%	7.71%	12.09%	6.94%	-30.30%	23.10%	13.43%	-1.17%
3 Year Return	-5.42%	1.12%	6.47%	12.91%	10.25%	8.89%	-5.82%	-2.83%	-0.90%	11.33%
5 Year Return	2.23%	2.40%	2.49%	4.33%	7.82%	11.53%	-0.02%	2.07%	3.13%	0.57%
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Actuarial Rate Assumption	8.00%	7.75%	7.75%	7.75%	7.75%	7.00%	7.00%	7.00%	7.00%	6.80%
1 Year Return	13.73%	13.30%	4.74%	-0.44%	7.53%	14.20%	-3.52%	18.72%	11.03%	17.19%
3 Year Return	8.43%	8.39%	10.51%	5.72%	3.89%	6.93%	5.81%	9.36%	8.34%	15.60%
5 Year Return	1.81%	12.20%	8.63%	5.84%	7.64%	7.73%	4.32%	6.97%	9.32%	11.22%

Strategic Asset Allocation

The asset allocation of the WRS investment portfolio begins with the Strategic Asset Allocation decisions made by the Wyoming Retirement Board of Trustees (Board). The Board analyzes, selects, and reviews the Strategic Allocation every three years. Although establishing the Strategic Allocation is a continuous process, at least once per year - normally early in the calendar - the Board reviews asset class return and volatility assumptions with the goal of adjusting expectations for both the upcoming three-year period and a longer-term view. The Strategic Asset Allocation reflects the Board's view of the asset classes that will position the portfolio to best meet the Board's long-term return objectives within a reasonable degree of risk.

The Board's Strategic Asset Allocation decisions are considered one of the primary drivers - perhaps the single most important driver - of portfolio investment performance. There is a preponderance of evidence suggesting that a portfolio's investment policy, or long-term asset allocation, is the primary determinant of return variability over time. The Strategic Allocation is designed to provide the portfolio with a broadly diversified mix of assets that together creates return streams and risk patterns consistent with the Board's unique risk tolerance and investment objectives. In determining the optimum mix of assets, the Board considers several variables, including:

- The expected rate of return for each asset class;
- The expected risk (standard deviation) of each asset class;
- The correlation between the various rates of return of the asset classes;
- The underlying factors considered to be the primary drivers of asset class performance; and
- The investment objectives and risk constraints of the portfolio.

In addition, the Board considers WRS's ability to practically implement meaningful investment dollars in an asset class in a cost-effective manner. The Board assigns relevant benchmarks to each asset class, thereby creating an atmosphere in which staff can implement Tactical Asset Allocation decisions regarding active and passive implementation. The custom benchmarks for the Board's Strategic Asset Allocation decisions, effective 5/19/2021, are as follows:

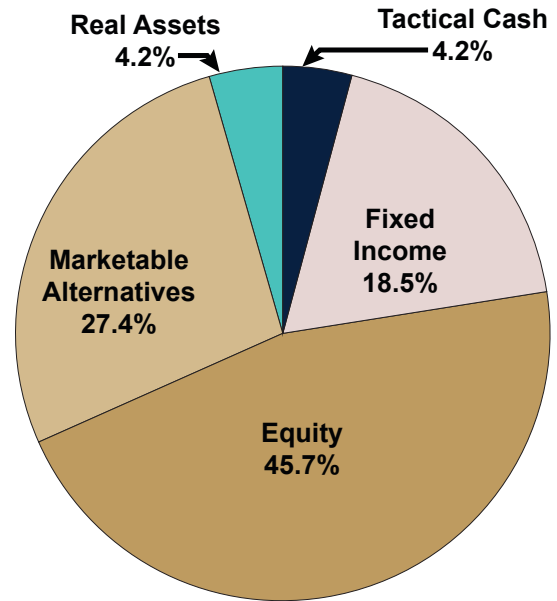
Investment Asset Class	Strategic Asset Allocation Weight	Custom Benchmarks	Weights	Blended composition
Tactical Cash	2.00%	Custom Total Tactical Cash		Barclays Short Treasury
Fixed Income	21.00%	Custom Total Fixed Income Benchmark	23.8%	Bloomberg Barclays U.S. Aggregate
			42.9%	Bloomberg Barclays Government
			19.0%	50% Credit Suisse Leveraged Loan/ 50% Bloomberg Barclays High Yield
			14.3%	Cambridge Associates Vintage Year Blend (Quarter Lag)
Equity	48.50%	Total Return of Custom Blended Equity Index	39.2%	Russell 3000 Total Return Index
			26.2%	MSCI EAFE IMI, Net Dividend (65% Hedged to USD)
			16.1%	MSCI EM IMI, Net Dividend
			18.6%	Cambridge Associates Global All Private Equity (Quarter Lag)
Marketable Alternatives	19.00%	HFRI Fund of Funds Composite Index		
Real Assets	9.50%	Vintage Year Blended Benchmark		
Total Investment Assets	100.00%	Target Asset Allocation Return		

Asset Allocation

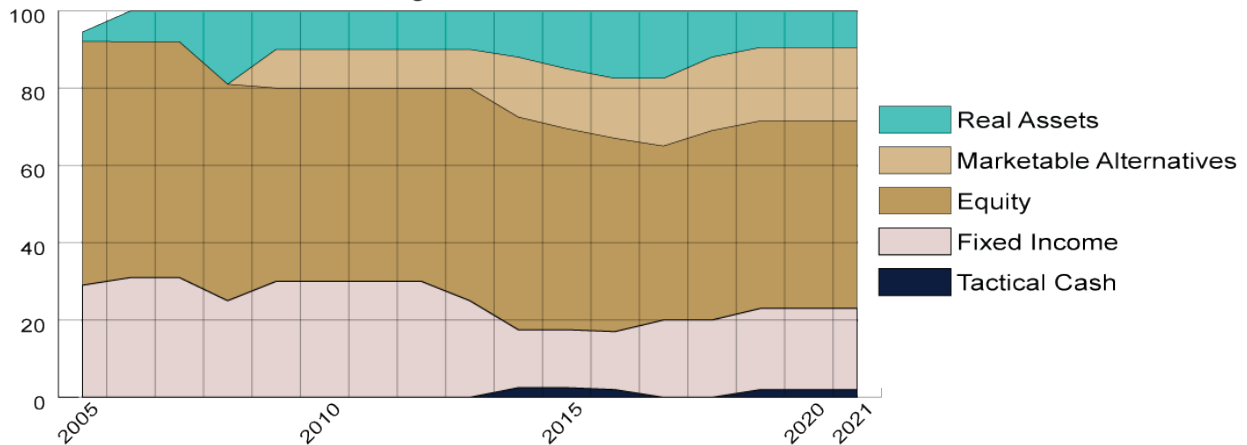
Asset Allocation

Asset allocation is neither simple nor static. It exists in an evolving marketplace. But, to a significant degree, the decisions made by the Board dictate the amount of risk assumed by the portfolio and the associated investment return expected over the long-term. The Board must understand the basis for its decisions to invest in certain asset classes and disinvest from others. Systematic approaches to asset allocation can be useful, but in the final analysis, asset allocation decisions reflect the institutional beliefs of the Board. The Board must understand that asset allocation decisions are long-term in nature and therefore give WRS the ability to hold a higher level of risk bearing assets. By assuming more risk, it is expected that long-term returns will be considerably higher than if the focus is strictly on short-term capital preservation. Generating higher long-term returns enables WRS to reduce the amount of money needed from participant contributions to properly fund the system. The accompanying pie chart illustrates the Strategic Asset Allocation of the WRS investment portfolio through December 31, 2021.

Strategic Asset Allocation Weight



Strategic Asset Allocation



Strategic Asset Class	2013	2014	2015	2016	2017	2018	2019	2020	2021
Tactical Cash	0.00%	2.50%	2.50%	2.00%	0.00%	0.00%	2.00%	2.00%	2.00%
Fixed Income	25.00%	15.00%	15.00%	15.00%	20.00%	20.00%	21.00%	21.00%	21.00%
Equity	55.00%	55.00%	52.00%	50.00%	45.00%	49.00%	48.50%	48.50%	48.50%
Marketable Alternatives	10.00%	15.50%	15.50%	15.50%	17.50%	19.00%	19.00%	19.00%	19.00%
Real Assets	10.00%	12.00%	15.00%	17.50%	17.50%	12.00%	9.50%	9.50%	9.50%

Strategic Asset Class	2005	2006	2007	2008	2009	2010	2011	2012
Tactical Cash	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fixed Income	29.00%	31.00%	31.00%	25.00%	30.00%	30.00%	30.00%	30.00%
Equity	63.10%	61.00%	61.00%	56.00%	50.00%	50.00%	50.00%	50.00%
Marketable Alternatives	0.00%	0.00%	0.00%	0.00%	10.00%	10.00%	10.00%	10.00%
Real Assets	2.40%	8.00%	8.00%	19.00%	10.00%	10.00%	10.00%	10.00%

*Note: Numbers may not total 100.0% due to rounding.

Tactical Asset Allocation

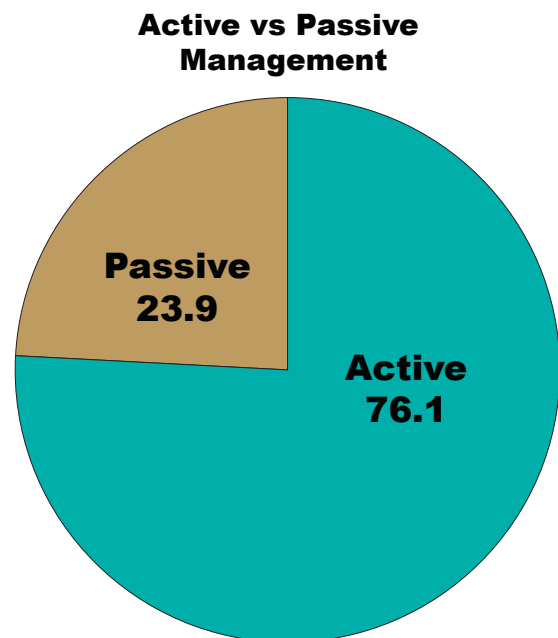
Short-term decisions determine the most efficient way to implement portfolio investments within the construct of the long-term Strategic Asset Allocation determined by the Board. The Tactical Allocation is necessary given that we are unable to immediately allocate to private markets to meet our long-term strategic goals. Private markets rely on capital being drawn over multiple years, which makes it impractical to reach our long-term goals immediately. It forces us to have realistic short-term targets as we build towards our long-term goals.

The Board has delegated to WRS staff the authority for making tactical, short-term asset allocation decisions on behalf of the portfolio within broad ranges approved by the Board. The Board has established these ranges to maintain appropriate risk controls. The delegation includes the authority for staff to hire and fire investment managers and to adjust the portfolio for the purpose of taking advantage of market opportunities as they emerge. In compliance with the Board's Investment Policy Statement (IPS), the Chief Investment Officer makes Tactical Allocation decisions away from the long-term Strategic Allocation in consultation with the external investment consultant (Meketa) and upon approval of the Executive Director. These decisions involve two distinct steps:

Tactical Decisions - decisions made to alter an asset allocation of the portfolio away from the passive benchmark of the long-term Strategic Asset Allocation class adopted by the Board within pre-approved ranges. For example, if staff had a favorable view on Fixed Income, staff may decide to overweight the targeted 21% of assets, which would by default underweight one of the other asset classes.

Implementation Decisions - decisions involving active vs. passive management and, in the case of active management, the selection of specific managers whose performance is then measured relative to appropriate benchmarks. For example, staff may elect to implement Fixed Income investments through active management instead of passive management. Staff is authorized to then select the appropriate active manager(s). WRS has traditionally relied heavily on active management. Over the past year, WRS has transitioned to holding more active allocations in both the equity and fixed income asset classes. The pie chart to the below highlights WRS's exposure to active and passive management within the portfolio through December 31, 2021.

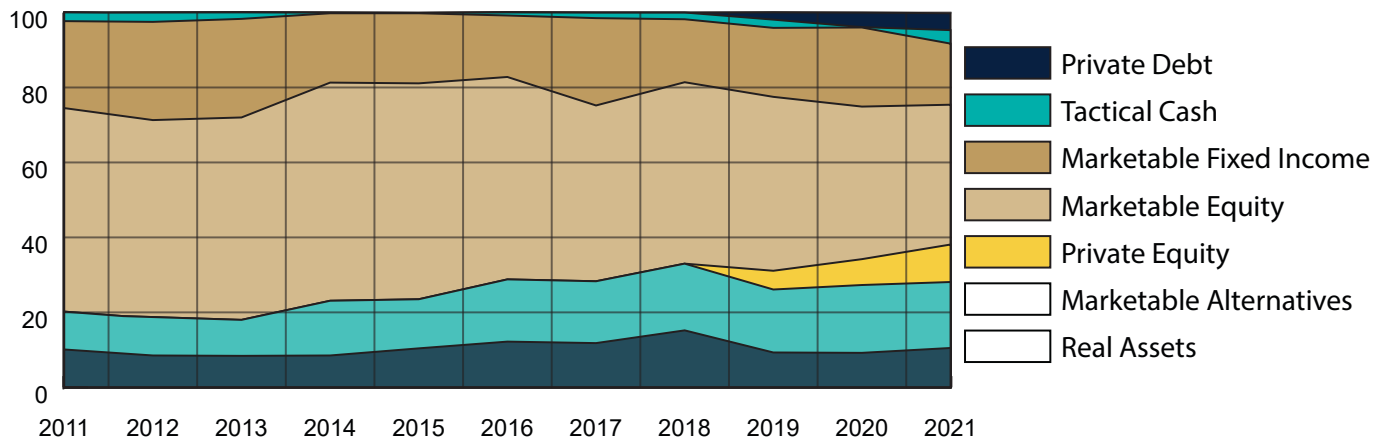
Tactical Allocation decisions also include sub-asset class allocation choices made by the Chief Investment Officer with the approval of the Executive Director to deviate from the Strategic Allocation weight. The value added by staff decisions to overweight or underweight these sub-asset classes is measured by the difference between the relative returns of the benchmarks for the Strategic Allocation and the Tactical Allocation. Tactical Allocation returns that exceed the returns associated with the Strategic Allocation reflect value added through tactical decisions. Tactical Allocation returns less than the Strategic Allocation returns reflect losses to the portfolio's performance based upon tactical decisions. Tactical decisions should be measured over all periods of time, with majority weight placed on outcomes that have occurred over a full market cycle (5 to 7 years).



Asset Allocation

Tactical Allocations as of December 31, 2021, are included in the graph below

Tactical Allocation



Note: Prior to 2019, Private Debt and Private Equity were included with Real Assets and named Private Markets.

Actual Asset Class Exposure	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Tactical Cash	2.4%	2.5%	1.8%	0.2%	0.1%	0.9%	1.5%	1.8%	2.2%	0.1%	3.6%
Marketable Fixed Income	23.2%	26.2%	26.3%	18.5%	18.7%	16.4%	23.3%	16.8%	18.4%	21.1%	16.3%
Private Debt	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	3.9%	4.5%
Marketable Equity	54.3%	52.3%	54.0%	58.2%	57.6%	54.0%	46.9%	48.4%	46.4%	40.7%	37.3%
Private Equity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	6.9%	10.0%
Marketable Alternatives	10.1%	10.5%	9.6%	14.6%	13.1%	16.6%	16.5%	17.8%	16.8%	18.1%	17.6%
Real Assets	10.1%	8.5%	8.4%	8.5%	10.4%	12.2%	11.8%	15.2%	9.3%	9.2%	10.5%

Implementation Decisions / Manager Selection

Implementation Decisions are investment manager selection choices made by the Chief Investment Officer with the approval of the Executive Director. The value added through these manager selection decisions is measured by the difference between the actual manager returns and the Strategic Asset Allocation return. This difference captures the value added through manager selection decisions. Portfolio returns that exceed the benchmarks associated with the Strategic Asset Allocation reflect value added through manager selection decisions. Actual portfolio returns that under-perform the Strategic Asset Allocation benchmarks reflect losses to the portfolio's performance based upon implementation decisions. Implementation decisions should be measured over all periods of time, with a majority weight placed on outcomes that have occurred over a full market cycle (5 to 7 years).

The Board receives performance data and other information on a quarterly basis to help ensure adequate monitoring of the portfolio's overall performance objectives.

APPENDIX I - Strategic Asset Allocation

Adopted December 4, 2009, Revised: April 22, 2011; May 25, 2012; February 22, 2013; February 28, 2014; May 22, 2014; February 25, 2015; February 25, 2016; February 16, 2017; February 15, 2018; September 10, 2018; February 7, 2019; May 16, 2019; May 19, 2020, May 19, 2021

Asset Class	Target Asset Allocation Weight (%)	Target Asset Allocation Range (%) ^{1,2}	Asset Class Benchmark Index
Tactical Cash	2	0.0 – 5.0	Barclays Short Treasury
Total Fixed Income	21		Blended Benchmark
Marketable Fixed Income	18	13.0 – 25.5 ³	Blended Benchmark
Core Plus	5		Bloomberg Barclays U.S. Aggregate
US Government Debt	9		Bloomberg Barclays Government
Opportunistic Credit	4		50% Credit Suisse Leveraged Loan/ 50% Bloomberg Barclays High Yield
Private Debt	3	2.5 – 7.5	Cambridge Associates Vintage Year Blend (Quarter Lag)
Total Equity	48.5		Blended Benchmark
Marketable Equity	39.5	34.5 – 44.5 ³	Blended Benchmark
Domestic Equity	19		Russell 3000 Total Return Index
International Developed Equity	12.7		MSCI EAFE IMI, Net Dividend (65% Hedged to USD)
Emerging Markets Equity	7.8		MSCI EM IMI, Net
Private Equity	9	2.5 – 12.5	Cambridge Associates Global All Private Equity (Quarter Lag)
Marketable Alternatives	19	14.0 – 24.0	HFRI FoF Index
Opportunistic/Directional		0.0 – 10.0	
Absolute Return		5.0 – 15.0	
Enhanced Fixed Income		0.0 – 10.0	
Global Asset Alloc. (GAA)		2.5 – 12.0	
Private Real Assets	9.5	7.0 – 13.0	Cambridge Associates Vintage Year Blend (Quarter Lag)
Natural Resources		2.5 – 7.5	Cambridge Associates Vintage Year (Quarter Lag)
Infrastructure		2.5 – 7.5	MSCI World Infrastructure (Quarter Lag)
Real Estate	3.5	2.5 – 7.5	NCREIF ODCE

1 All ranges for Private Markets are long-term ranges.

2 Range based on a percentage of total assets.

3 Strategic ranges for subcategories within Marketable Equity and Marketable Fixed Income are calculated as +/- 50% of Target Asset Allocation Weight with a maximum adjustment of 5.0% in either direction, unless otherwise noted.

Return Objective: 6.80% net of expenses

Investment Policy Summary

Investment Policy Summary

The Board adopted a revised Investment Policy Statement (IPS) on February 15, 2018 that amended the policy originally approved December 4, 2009. The IPS defines the desired investment outcomes of the portfolio. The Board's responsibilities under the IPS are as follows:

Develop a Return Objective designed to:

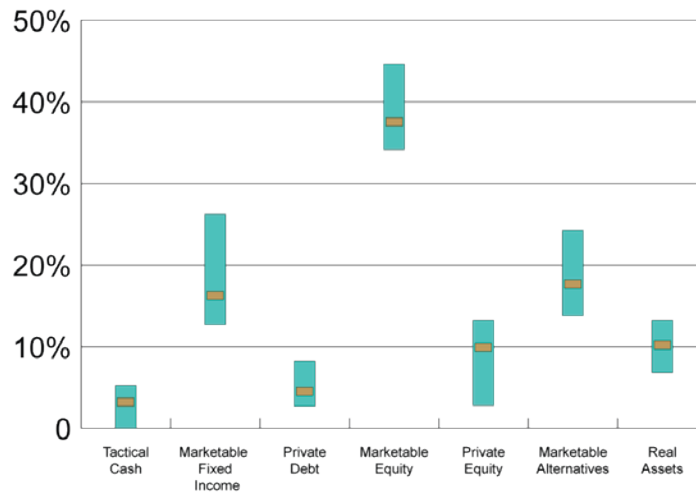
- 1 Keep contribution rates reasonably level over long periods of time, subject to and recognizing that changes made to the law, actuarial assumptions and benefit levels will impact contribution rates; and
- 2 Adequately fund aggregate liabilities of the system.

Establish a Strategic Asset Allocation that is expected to meet the Return Objective while minimizing the potential impact that volatility in the portfolio will have on the contribution rate.

The statutory requirements for WRS's investments are outlined in W. S. 9-3-408.

W. S. 9-3-408(b) states in part "...In investing and managing the monies in the retirement account, the board, or its designee, shall exercise the judgment and care that a prudent investor would, in light of the purposes, terms, distribution requirements and all other circumstances surrounding the monies in the retirement account, including risk and return objectives established by the board..."

Current Exposures Relative to Min/Max Allowable



The Board's investment policies are outlined in detail in Note 3 to the Basic Financial Statements section of this ACFR. WRS's success in achieving the 6.80% assumed investment return objective is evaluated on an ongoing basis over reasonably long periods of time (5 to 7 years). The reason for the long-term focus on the return objective is to preclude the temptation towards overreaction to short-term market events that have little to no bearing on long-term asset/liability management. The Board must reconcile its need to evaluate investment policy implementation decisions over shorter time frames while maintaining longer-term focus on managing and measuring the portfolio's overall performance relative to the long-term return objective.

To address this issue, the Board evaluates performance relative to Strategic Asset Allocation and Tactical Asset Allocation benchmarks which help to evaluate the Board's broad Strategic Asset Allocation decisions and the staff's Tactical Asset Allocation and implementation decisions.

Total Fund Review

Actual Asset Class Exposure	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Tactical Cash	2.5%	1.8%	0.2%	0.1%	0.9%	1.5%	1.8%	2.2%	0.1%	3.6%
Marketable Fixed Income	26.2%	26.3%	18.5%	18.7%	16.4%	23.3%	16.8%	18.4%	21.1%	16.3%
Private Debt	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	3.9%	4.5%
Marketable Equity	52.3%	54.0%	58.2%	57.6%	54.0%	46.9%	48.4%	46.4%	40.7%	37.3%
Private Equity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	6.9%	10.0%
Marketable Alternatives	10.5%	9.6%	14.6%	13.1%	16.6%	16.5%	17.8%	16.8%	18.1%	17.6%
Real Assets	8.5%	8.4%	8.5%	10.4%	12.2%	11.8%	15.2%	9.3%	9.2%	10.5%

Cash

The Board has provided a target of 2.0% for this asset class with a strategic range of 0.0% to 5.0%, recognizing a cash allocation for liquidity purposes can provide needed flexibility during times of market stress. In addition, WRS typically holds between 3 to 6 months of estimated benefit payments in cash and cash equivalents. Investments in this category will be focused primarily on preservation of capital with a secondary focus on yield.

As of December 31, 2021, the Cash allocation was \$394,228,737, or 3.65% of the total portfolio after accounting for the overlay program. Cash includes Short Term Investment Funds (STIF). WRS had contracts with one external investment manager who manages a portfolio related to cash including the overlay.

Fixed Income with Private Debt

Effective May 16, 2019, the WRS Governance Policy was amended to include Private Debt in the Fixed Income Category.

The Board has provided a target of 18.0% for Marketable Fixed Income with a strategic range of 13.0%-25.5%. The Private Debt sub-asset class has a target of 3% and with a strategic range of 2.5% - 7.5%. The blended benchmark for marketable fixed income consists of 23.8% Barclays U.S. Aggregate, 42.9% Barclays Government, and 19.0% is a 50/50 blend of Bloomberg Barclays High Yield Index and Credit Suisse Leveraged Loan Index. The Private Debt benchmark is Cambridge Associates Vintage Year Blend (Quarter Lag). Private Debt strategies can include Sr. lending, Mezzanine Finance, Distressed debt, and Real Estate debt among others.

The top holdings within the Marketable Fixed Income portfolio as of December 31, 2021, are illustrated in the table below:

Top Marketable Fixed Income Portfolios						
Holdings	Start Date	Rate	Due		Percent of WRS Marketable Fixed Income Portfolio	Fair Value
UNITED STATES TREAS BDS		2.250%	5/15/2051	REG	1.88%	28,400,000.00
UNITED STATES TREAS BDS		2.250%	5/15/2041	REG	1.61%	24,232,656.25
UNITED STATES TREAS NTS		2.875%	5/15/2028		1.21%	18,218,684.22
UNITED STATES TREAS NTS DTD		2.375%	8/15/2024	REG	1.08%	16,200,310.75
UNITED STATES TREAS NTS DTD	5/15/2014	2.500%	5/15/2024	REG	1.05%	15,845,107.46
UNITED STATES TREAS NTS DTD	5/15/2021	1.625%	5/15/2031		1.02%	15,409,000.00
UNITED STATES OF AMER TREAS NOTES DTD	8/2/2021	0.125%	7/31/2023		0.99%	14,883,398.40
UNITED STATES TREAS NTS		1.250%	3/31/2028		0.99%	14,878,710.90
UNITED STATES TREAS NTS DTD	4/30/2021	1.250%	4/30/2028		0.99%	14,875,781.25
UNITED STATES TREAS NTS DTD	6/15/2021	0.250%	6/15/2024		0.98%	14,782,031.25

Note: Please contact the Wyoming Retirement System for a complete list of portfolio holdings.

Asset Class Summaries

As of December 31, 2021, the Marketable Fixed Income allocation was \$1,763,039,756, or 16.32% of the total portfolio, after accounting for the overlay program. WRS had contracts with eight (8) external investment managers. In addition, WRS employs Russell Investments as an overlay manager. No managers were hired during calendar 2021 for Marketable Fixed Income.

The Top Organizations Marketable Fixed Income

Organization	Style	Percent of WRS Marketable Fixed Income Portfolio
ALLIANCE BERNSTEIN	Core Plus	7.63%
ALTUM	Credit	8.58%
BEACH POINT	Opportunistic Credit	9.10%
DIMENSIONAL	U.S. Government Debt	11.27%
DOUBLELINE	U.S. Government Debt	13.40%
PIMCO CLO	Corporate Bonds	16.32%
RUSSELL OVERLAY	Overlay	0.00%
STATE STREET GLOBAL ADVISORS	U.S. Government Debt	29.25%
WESTERN ASSET MANAGEMENT	Core Plus	4.45%

WRS has 13 external managers who manage 16 portfolio strategies for its allocations to Private Debt. As of December 31, 2021, Private Debt strategies allocation was \$490,233,305, or 4.54% of the total portfolio. Kennedy Lewis Capital Partners had an additional portfolio named as Fund III in the Private Debt Funds during the year. The new manager hired to manage the Private Debt portfolio in 2021 was Pathlight.

Private Debts

Organization	Style	Percent of WRS Private Debt Portfolio
AGL CLO DISLOCATION FND	Private Debt	13.76%
BENEFIT STREET PTRS DISL	Private Debt	4.36%
CARL MARKS ST OPPS III LP	Private Debt	3.12%
CARL MARKS STRATEGIC O	Private Debt	1.34%
CENTERBRIDGE CREDIT PT	Private Debt	8.17%
KAYNE ANDERSON MEZZANI	Private Debt	0.04%
KENNEDY LEWIS CAPTL PRTS	Private Debt	9.42%
KLCP DOMESTIC FD III LP	Private Debt	0.97%
KSL-COF II	Private Debt	4.22%
MEADOWLARK FUND, L.P.	Private Debt	32.14%
OAKTREE REAL ESTATE DE	Private Debt	0.02%
PATHLIGHT CAP FUND II LP	Private Debt	5.81%
SILVER ROCK ONSHORE TAF	Private Debt	6.23%
TCI REP III	Private Debt	1.45%
TENNENBAUM DEBT OPP FD	Private Debt	2.97%
TENNENBAUM SR LOAN III	Private Debt	5.97%

Equity with Private Equity

Effective May 16, 2019, the WRS Governance Policy was amended to include Private Equity in the Equity Category.

The Board has provided a target of 39.5% for the total Marketable Equity asset class with a strategic range of 34.5% to 44.5%. The WRS Equity asset class is, in aggregate, benchmarked against a blend of indices that reflect strategic regional weightings and the strategic allocation to Private Equity. The Private Equity sub asset class has a target of 9.0% and a strategic range of 2.5% - 12.5 %. The Marketable Equity blended benchmarks consists of 39.2% Russell 3000 Total Return Index, 26.2 % MSCI EAFE IMI, Net Dividend (65% Hedged to USD), and 16.1% MSCI EM IMI, Net Dividend. The Private Equity benchmark is Cambridge Associates Global All Private Equity (Quarter Lag). Private Equity are investments in buyout and venture equity not traded in public markets.

The Board has given staff the flexibility to invest in all sectors and geographies.

The top 10 holdings within the Marketable Equity portfolio as of December 31, 2021, are illustrated in the table below:

Holdings	Percent of WRS Marketable Equity Portfolio	Fair Value
MICROSOFT CORP COM	1.29%	54,002,229.76
APPLE INC COM STK	1.24%	51,764,673.69
AMAZON COM INC COM	0.64%	26,874,780.40
S&P GLOBAL INC COM	0.43%	18,098,987.43
ALPHABET INC CAPITAL STOCK USD0.001 CL A	0.37%	15,461,502.48
BROADCOM INC COM	0.30%	12,327,385.66
NVIDIA CORP COM	0.26%	10,836,188.84
EQUIFAX INC COM	0.26%	10,663,411.80
THERMO FISHER CORP	0.25%	10,297,514.92
ANALOG DEVICES INC COM	0.25%	10,256,003.73

Note: Please contact the Wyoming Retirement System for a complete list of portfolio holdings.

Asset Class Summaries

As of December 31, 2021, the Marketable Equity allocation was \$4,034,243,617, or 37.34% of the total portfolio, after accounting for the overlay program. WRS has contracts with fifteen (15) external investment managers who manage nineteen (19) portfolio strategies. The existing manager, Alliance Bernstein, had an additional portfolio mandate called US Quality Tilt in the Domestic Equity asset class in 2021.

Marketable Equity		
Organization	Style	Percent of WRS Marketable Equity Portfolio
ACADIAN EM MANAGED VOL	Emerging Market	0.03%
ALLIANCE BERNSTEIN - EAFE 100% USD HEDGED	Developed Market	1.12%
ALLIANCE BERNSTEIN - INTERNATIONAL DEVELOPED MARKET	Developed Market	6.74%
ALLIANCE BERNSTEIN - MSCI QUALITY TILT	US Equity	9.40%
ALLIANCE BERNSTEIN - MSCI US LARGE CAP	US Equity	6.73%
ALLIANCE BERNSTEIN MSCI US	US Equity	11.63%
AQR INTERNATIONAL EQUITY	Developed Market	0.00%
BURGUNDY EQUITY	US Equity	9.00%
CANTILLON	US Equity	8.63%
CEVIAN CAP II	Developed Market	5.57%
GOLD ETF	Emerging Market	7.01%
HARDING LOEVNER EM	Emerging Market	4.33%
HIGHCLERE	Developed Market	3.18%
NIKKO INTL EQUITY	Developed Market	1.98%
POLUNIN EMERGING MARKE	Emerging Market	4.36%
RESIDUAL	N/A	0.01%
RS SMALL CAP GROWTH	US Equity	3.07%
RUSSELL OVERLAY	Futures	0.00%
SANDERSON INTL EQTY VALUE	Developed Market	4.68%
SSGA MSCI EM	Emerging Market	3.32%
VALUEACT CAPITAL	US Equity	5.43%
WELLINGTON EMSCSE	Emerging Market	3.79%

Within Private Equity, existing managers, Hillhouse and Abbott Capital had additional portfolios named Hillhouse Healthcare Fund and Abbott Opportunities Fund III, respectively, in 2021. The fair value of the Private Equity assets as of December 31, 2021 was \$1,079,769,126, or 9.99% of the portfolio. The style for the Abbott Opportunities Fund III is Growth and Buyout. The style for the Hillhouse Healthcare Fund is Venture Capital, Growth and Buyout. The Private Equity Portfolio has five (5) external managers who manage eight (8) strategies.

Private Equity		
Organization	Style	Percent of WRS Private Equity Portfolio
ABBOTT II	Private Equity	23.24%
ABBOTT PRIVATE EQUITY	Private Equity	44.87%
ADAMS STREET CO	Private Equity	4.01%
GROVE STREET CLOUDVEIL	Private Equity	25.66%
HILLHOUSE CAPITAL HEALTH	Private Equity	0.07%
HILLHOUSE FC GRW FD V LP	Private Equity	0.94%
HILLHOUSE FUND V LP	Private Equity	0.41%
OPPORTUNITIES FD III LLC	Private Equity	0.80%

Marketable Alternatives

The Board has provided a target of 19.0% for this asset class with a strategic range of 14.0% to 24.0%. The WRS Marketable Alternatives asset class is, in aggregate, benchmarked against HFRI FoF Index.

As of December 31, 2021, the Marketable Alternatives allocation was \$1,903,206,695, or 17.62% of the total portfolio. In the calendar year 2021, WRS had positions with fourteen (14) external investment managers who manage seventeen (17) unique mandates.

One manager, HighVista, was hired to manage WindRiver Fund during the year. The style for the new Marketable Alternatives manager, HighVista, is Healthcare Equity. The existing manager, Janchor, also had an additional mandate named Janchor Partners Pan-Asian U.S. Feeder Fund with an Asia Pacific Public Equity style in 2021.

Marketable Alternatives		
Organization	Style	Percent of WRS Marketable Alternatives Portfolio
ACADIAN EM SC	Emerging Market	0.05%
AQR GLOBAL RISK PREMIU	Global Asset Allocation	8.54%
BRIDGEWATER-PURE ALPH	Absolute Return	18.90%
DIAMETER DISLOCATION FND	Distressed Debt	3.49%
DORSAL CAPITAL PARTNERS	Absolute Return	5.59%
DORSAL DOSF	Absolute Return	1.82%
GMO GAAR	Global Asset Allocation	8.29%
GMO SYSTEMATIC GM	Absolute Return	4.84%
HILLHOUSE HHLR	Equity L/S	4.28%
JANCHOR MASTER FUND	Equity L/S	3.34%
JANCHOR PARTNERS OPP. US	Equity L/S	3.08%
LFL ADVISERS	Equity L/S	2.59%
NAYA FUND	Equity L/S	6.59%
PERSHING SQUARE	Equity L/S	7.44%
SPROTT PHYSICAL URANIUM TRUST	Equity L/S	2.72%
TCI - CHILDREN'S INV FUND	Equity L/S	11.09%
WIND RIVER FUND	Equity L/S	7.35%

Asset Class Summaries

Private Real Assets

The Board has provided a target of 9.5% for this asset class with a strategic range of 7.0% to 13.0%. Natural Resources, Infrastructure and Real Estate make up the Private Real Asset asset class, which was previously referred to as Private Markets. The subcategories are listed below:

- 1 Real Estate Private real estate funds (not publicly traded); can be core, value-add or opportunistic.
- 2 Other Real Assets Private funds where pricing and value is derived from holding Real assets other than real estate. Some holdings in this category would include metals and mining funds, energy funds, or infrastructure investments.

The WRS Private Markets asset class is, in aggregate, benchmarked against a blend of vintage year funds matching our internal holdings.

As of December 31, 2021, the allocation to Private Real Assets was \$1,138,569,861 or 10.54% of the total portfolio. WRS had contracts with 9 external investment managers who manage thirteen (13) portfolios. No managers were terminated in 2021. The existing manager, HL Moran GP LLC, had an additional portfolio named Moran Real Assets Fund III in 2021.

Organization	Style	Percent of WRS Real Assets Portfolio
ALINDA INFRASTRUCTURE	Infrastructure	1.12%
BLACKSTONE BREP VIII	Real Estate	2.10%
CENTERSQUARE REIT FUND	Real Estate	14.96%
KAYNE ANDERSON KAREP II	Real Estate	0.00%
KAYNE ANDERSON KAREP III	Real Estate	0.08%
MACQUARIE INFRA PARTNE	Infrastructure	0.02%
MORAN II	Real Assets	23.27%
MORAN REAL ASSET FD III	Real Assets	2.08%
MORAN REAL ASSET FUND	Real Assets	35.37%
MS PRIME PROPERTY	Real Estate	12.54%
ORION NATURAL RESOURCE	Nature Resources	2.57%
RIDGEWOOD ENERGY FUND	Nature Resources	2.41%
RIDGEWOOD ENERGY II	Nature Resources	3.49%

Overlay

WRS employs Russell Investments to provide an overlay program to ensure the portfolio's major asset classes remain within a certain percentage of their targeted weights. Market movements can lead to significant implicit tilts within the portfolio. For example, a sharp decline in equities will many times be accompanied by stability within fixed income. Consequently, the equity position will decrease as a percentage of assets while fixed income will increase. This causes an implicit tilt towards fixed income. The overlay program brings these implicit tilts back within an acceptable band.

Asset Class Summaries

Schedule of Investment Portfolios by Asset Class

As of December 31, 2021

Overlay		
Asset Class	Fair Value (in USD)	Percentage of Investments at Fair Value
Tactical Cash		
Cash & Cash Equivalents	510,440,504	4.72%
Russell Overlay Program	(116,211,767)	-1.08%
Total Tactical Cash	394,228,737	3.65%
FIXED INCOME		
Corporate Bonds/Credit	573,328,133	5.31%
Emerging Markets Debt	18,180,938	0.17%
Mortgages/ABS	36,244,656	0.34%
Private Debt	490,233,305	4.54%
TIPS	2,965,896	0.03%
Treasury/Agencies/Governments	876,075,789	8.11%
Russell Overlay Program	256,244,345	2.37%
Total Fixed Income	2,253,273,061	20.86%
EQUITY		
Domestic	2,315,799,329	21.44%
Emerging Markets	712,865,945	6.60%
International Developed	1,145,610,921	10.60%
Private Equity	1,079,769,126	9.99%
Russell Overlay (MSCI US)	(74,045,740)	-0.69%
Russell Overlay (MSCI EM)	27,285,175	0.25%
Russell Overlay (MSCI World ex-US)	(93,272,013)	-0.86%
Total Equity	5,114,012,743	47.34%
Marketable Alternatives		
Absolute Return	651,462,651	6.03%
Enhanced Fixed Income	67,061,214	0.62%
GAA	323,728,473	3.00%
Opportunistic/Directional	860,954,357	7.97%
Total Marketable Alternatives	1,903,206,695	17.62%
Private Real Assets		
Other Real Assets	800,297,438	7.41%
Real Estate	338,272,423	3.13%
Total Private Real Assets	1,138,569,861	10.54%
Total Securities & Cash	10,803,291,097	100.00%

Due to rounding, numbers may not total exactly.

Schedule of Fees

Schedule of Investment Fees

Total of Defined Benefit Pension Plans				
Investment Managers	Assets Under Management	Total Management Fees	Basis Points	
Cash	510,440,504	-	-	
Fixed Income Manager	1,997,028,717	8,626,118	43 bp	
Equity Manager	5,254,045,321	20,918,345	40 bp	
Marketable Alternatives Manager	1,903,206,695	19,355,648	102 bp	
Private Markets Manager	1,138,569,861	5,564,248	49 bp	
Total Net Receivables/Payables	3,202,695	N/A	N/A	
Total Investment Manager Fees	10,806,493,792	54,464,359	50bp	
Other Investment Service Fees				
Overlay Manager	433,566		N/A	
Security Lending Fees	167,709		N/A	
Custodian Services	1,166,444		N/A	
Investment Consultant Fees	1,449,535		N/A	
Total Other Service Fees	3,217,253		N/A	

Note 1: Incentive fees, estimated at \$90,837,633 for the year are not included in the above table.

Note2: Incentive fees are mostly based on an accrual. Many funds don't crystallize fees every year and are subject to "clawbacks" so these are just estimates on the current year accrual. They are variable in nature based on performance so in years which returns are high, it's expected these fees will be large.

Schedule of Administrative and Investment Fees						
Fiscal Year	2021	2020	2019	2018	2017	2016
Administrative and Depreciation Expense	9,413,325	8,799,934	7,971,274	8,511,839	8,008,568	7,318,335
Investment Fees	2,932,254	4,942,085	13,992,118	12,375,829	6,379,843	1,565,229
Manager Fees	54,464,359	47,991,177	50,218,069	52,745,561	47,559,030	34,660,846
Total Expenses & Fees	66,809,938	61,733,196	72,181,461	73,633,229	61,947,441	43,544,410
Fair Value of Assets	10,806,493,792	9,604,086,411	9,009,222,485	7,893,605,593	8,490,710,733	7,683,410,886
Total Expenses & Fees as a Percentage of Fair Value of Assets	0.62%	0.64%	0.80%	0.93%	0.73%	0.57%

Schedule of Investment Returns

Schedule of Investment Returns

The following table compare the actual, based on fair value return, for investment categories to the corresponding benchmark time weighted returns.

Schedule of Investment Returns				
The following tables compare the actual, based on fair value return, for investment categories to the corresponding benchmark time weighted returns.				
	2021	3 Year	5 Year	10 Year
Fixed Income Returns				
Total Marketable Fixed Income Portfolio (Net of fees)	0.84%	6.20%	4.47%	4.43%
Custom Marketable Fixed Income Benchmark*	-0.41%	4.91%	3.64%	3.39%
Total Private Debt Portfolio (Net of fees)	33.51%	11.27%	9.10%	10.96%
Cambridge Associates Vintage Year Blended Private Debt Benchmark	21.06%	10.02%	10.13%	n/a
Equity Returns				
Total Marketable Equity Portfolio (Net of fees)	15.29%	19.25%	13.27%	11.13%
Custom Marketable Equity Benchmark*	17.27%	19.21%	13.58%	11.62%
Total Private Equity Portfolio (Net of fees)	59.77%	30.19%	24.06%	n/a
Cambridge Associates Global All PE	47.73%	22.29%	19.72%	n/a
Marketable Alternatives Returns				
Total MA Portfolio (Net of fees)	11.08%	14.22%	10.35%	n/a
HFRI FOF Composite	6.00%	8.42%	5.68%	n/a
Private Market Returns				
Total Real Estate Portfolio (Net of fees)	31.39%	10.12%	9.68%	9.34%
Vintage Year Blend Benchmark	29.41%	8.32%	9.23%	9.49%
TOTAL PORTFOLIO Returns				
Total Portfolio (Net of fees)	17.19%	15.60%	11.22%	9.42%
Strategic Blended Benchmark*	14.57%	13.77%	10.12%	8.69%

*See WRS Investment Policy Statement Appendix 1 for benchmark composition.

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Annual Comprehensive Financial Report 2021

ACTUARIAL SECTION



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June 3, 2022

Board of Trustees
State of Wyoming Retirement System
 6101 Yellowstone Road
 Suite 500
 Cheyenne, WY 82002

Subject: Wyoming Retirement System – Actuarial Valuation Certification

Dear Board of Trustees:

The Governmental Accounting Standards Board (GASB) has issued statement No. 67 which sets forth the requirements for plan reporting for each of the Wyoming Retirement System's Retirement Plans. For reporting purposes, the valuation date used is one year prior to the measurement date of December 31, 2021, and roll-forward procedures are used to update the actuarial liabilities and costs from the valuation date to the measurement date.

For purposes of reporting the financial information under GASB 68, the dates of the valuations are:

Retirement Plan	GASB 67 Actuarial Valuation Date
State of Wyoming Retirement System	January 1, 2021
Wyoming Law Enforcement Retirement Fund	January 1, 2021
Wyoming Paid Firemen's Retirement Fund Plan A	January 1, 2021
Wyoming Paid Firemen's Retirement Fund Plan B	January 1, 2021
Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund	January 1, 2021
Wyoming Judicial Retirement System	January 1, 2021
Wyoming Air Guard Firefighter Retirement System	January 1, 2021
Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Fund	January 1, 2021

Wyoming Retirement System
June 3, 2022

Roll-forward procedures were then applied to each set of valuation results in order to provide the actuarial information as of the December 31, 2021 measurement date. Assets for the GASB 67 calculations were based on the fair value of assets as of the measurement date. Separate actuarial valuations are performed for each of the plans as the assets of each plan are only available to pay the benefits for that plan. Actuarial assumptions and methods for each plan are set by the Board of Trustees, based upon recommendations made by the plan's actuary. The current actuarial assumptions and methods were adopted by the Board effective November 17, 2021 and February 17, 2022 based on an experience study performed as of December 31, 2020.

The following schedules in this section were prepared by GRS:

- Schedule of Active Member Valuation Data
- Schedule of Retirees & Beneficiaries Added to & Removed from Rolls
- Solvency Test
- Gains & Losses in Accrued Liabilities during the Year Ended 12/31/2021
- Schedule of Funding Progress

Financing Objectives of the WRS Plans

GASB reporting is separate and distinct from the financing of the plans. The basic financing objective in determining the funding requirements of the Wyoming Retirement System is to establish contribution requirements which will remain approximately level with any unfunded actuarial accrued liability paid off over a finite number of years. For plans whose benefits are based on each employee's compensation, these contribution requirements are expressed as a level percent of covered payroll. Otherwise, these contribution requirements are expressed as a level dollar amount.

Progress toward this financing objective is measured by actuarial valuations which determine the present financial position and test the adequacy of established contribution rates. The actuarial valuations are performed annually for all plans. The most recent funding valuations were performed as of January 1, 2022.

Differences between assumptions and actual experience since the prior valuation are identified as actuarial gains and losses. These gains and losses impact the unfunded actuarial accrued liability and future funding requirements determined in subsequent valuations.

Member data for retired, active and inactive members was supplied as of January 1, 2021 by the System's staff. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. Asset and financial information as of December 31, 2021, was supplied to us by the Wyoming Retirement System. The staff of the Wyoming Retirement System prepared the other supporting schedules in this section and the trend tables in the financial section based on information supplied in our reports.



Wyoming Retirement System
June 3, 2022

The reports were 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.

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. Furthermore, the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice.

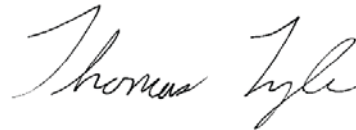
The undersigned are independent actuaries and consultants.

Thomas Lyle and Dana Woolfrey are Enrolled Actuaries and Paul Wood, Thomas Lyle, and Dana Woolfrey are Members of the American Academy of Actuaries and all three meet their Qualification Standards. All signing actuaries are experienced in performing valuations for large public retirement systems.

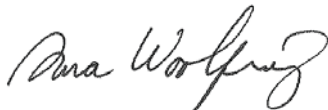
Respectfully submitted,
Gabriel, Roeder, Smith & Company



Paul Wood, ASA, FCA, MAAA
Senior Consultant



Thomas Lyle, FSA, FCA, EA, MAAA
Consultant



Dana Woolfrey, FSA, FCA, EA, MAAA
Senior Consultant



Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System Public Employees Plan Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 percentage 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 accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. Amortization bases are established each year and amortized based on the Board's policy. 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.

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System Public Employees Plan Actuarial Assumptions and Methods

3. Actuarial Value of Assets

The actuarial value of assets is based on the fair value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the fair value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of investment expenses. An adjustment is made if the actuarial value is not within 20% of the Fair Value. For any year following a year in which the 20% of fair 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	Service	Rate
1	6.50%	14	3.25%
2	6.50%	15	3.00%
3	6.50%	16	3.00%
4	6.00%	17	2.75%
5	5.25%	18	2.75%
6	4.75%	19	2.75%
7	4.25%	20	2.75%
8	4.00%	21	2.50%
9	4.00%	22	2.50%
10	3.50%	23	2.50%
11	3.50%	24	2.50%
12	3.50%	25	2.50%
13	3.50%	25+	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.

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System Public Employees Plan Actuarial Assumptions and Methods

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 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 2022 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%	0.34%
40	0.06%	0.03%	0.06%	0.03%	0.55%	0.53%
45	0.08%	0.05%	0.09%	0.06%	0.86%	0.84%
50	0.13%	0.07%	0.25%	0.19%	1.36%	1.26%
55	0.19%	0.10%	0.37%	0.25%	1.80%	1.48%
60	0.27%	0.16%	0.52%	0.34%	2.13%	1.66%
65	0.40%	0.25%	0.78%	0.54%	2.60%	1.93%
70	0.61%	0.42%	1.31%	0.94%	3.36%	2.46%
75			2.32%	1.68%	4.51%	3.48%
80			4.18%	3.03%	6.43%	5.26%
85			7.74%	5.75%	9.74%	8.40%
90			13.60%	10.97%	15.07%	12.67%
95			21.81%	18.48%	22.51%	18.39%
100			31.45%	27.98%	31.45%	27.16%

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System Public Employees Plan Actuarial Assumptions and Methods

b. Disability, Withdrawal, and Retirement

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	0.02%	0.02%
50	0.12%	0.05%
55	0.24%	0.12%
60	0.24%	0.24%

Service	Withdrawal	
	Male	Female
1	13.00%	14.00%
2	13.00%	14.00%
3	13.00%	14.00%
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%
20+	3.00%	6.00%

Age	Retirement	
	Unreduced	Reduced
<50	15.00%	0.20%
50	15.00%	0.20%
51	15.00%	0.20%
52	15.00%	0.30%
53	15.00%	0.50%
54	15.00%	0.50%
55	17.00%	1.00%
56	17.00%	1.00%
57	17.00%	1.00%
58	17.00%	1.50%
59	17.00%	2.00%
60	13.00%	2.50%
61	13.00%	2.50%
62	18.00%	2.50%
63	15.00%	2.50%
64	15.00%	2.50%
65	30.00%	
66	35.00%	
67	28.00%	
68	25.00%	
69	25.00%	
70	25.00%	
71	20.00%	
72	20.00%	
73	20.00%	
74	15.00%	
75	15.00%	
76	15.00%	
77	15.00%	
78	15.00%	
79	15.00%	
80+	100.00%	

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System Public Employees Plan Actuarial Assumptions and Methods

6. Other Assumptions

- a. Percent married: 85% 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 the active members will elect the maximum value of the refund or deferred benefit when they terminate.
- 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 (65 for Tier 2).
- 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 disabled 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

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System Public Employees Plan Changes in Plan Provisions, Actuarial Assumptions and Methods

Changes in Plan Provisions

There have been no changes to the Plan Provisions since the prior valuation.

Changes in Actuarial Assumptions and Methods

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.

Exhibit II

Wyoming Law Enforcement Retirement Fund

Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 percentage 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 accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. Amortization bases are established each year and amortized based on the Board's policy. 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.

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II

Wyoming Law Enforcement Retirement Fund Actuarial Assumptions and Methods

3. Actuarial Value of Assets

The actuarial value of assets is based on the fair 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 fair 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 Fair Value. For any year following a year in which the 20% of fair 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

Age	Rate
20	7.00%
25	6.50%
30	5.00%
35	4.25%
40	4.25%
45	4.00%
50	3.50%
55	3.25%
60	3.00%

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.

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II Wyoming Law Enforcement Retirement Fund Actuarial Assumptions and Methods

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Pre-Retirement Mortality:

Pub-2010 Safety 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 Safety 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 100%

Disabled Mortality:

Pub-2010 Safety 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	
	Male	Female	Male	Female	Male	Female
	Projected to 2022 using the MP-2020 Ultimate Scale					
20	0.03%	0.01%	0.03%	0.01%	0.10%	0.05%
25	0.03%	0.02%	0.03%	0.02%	0.09%	0.06%
30	0.03%	0.02%	0.03%	0.02%	0.10%	0.08%
35	0.04%	0.03%	0.04%	0.03%	0.12%	0.10%
40	0.05%	0.04%	0.05%	0.04%	0.15%	0.14%
45	0.07%	0.06%	0.10%	0.07%	0.21%	0.19%
50	0.10%	0.08%	0.16%	0.13%	0.30%	0.26%
55	0.15%	0.10%	0.26%	0.22%	0.41%	0.39%
60	0.22%	0.14%	0.43%	0.38%	0.62%	0.59%
65	0.35%	0.19%	0.75%	0.66%	1.01%	0.91%
70	0.66%	0.39%	1.35%	1.14%	1.64%	1.39%
75			2.45%	1.99%	2.81%	2.12%
80			4.47%	3.47%	4.90%	3.47%
85			8.23%	6.16%	8.30%	6.16%
90			14.70%	10.95%	14.70%	10.95%
95			22.73%	18.07%	22.73%	18.07%
100			31.45%	27.16%	31.45%	27.16%

30% of active deaths are assumed to be duty-related

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II Wyoming Law Enforcement Retirement Fund Actuarial Assumptions and Methods

b. Disability and Withdrawal

Age	Disability	
	Non-Duty	Duty
20	0.03%	0.02%
25	0.03%	0.02%
30	0.03%	0.02%
35	0.04%	0.02%
40	0.09%	0.05%
45	0.19%	0.12%
50	0.33%	0.20%
55	0.57%	0.34%
60	1.11%	0.67%
65	1.53%	0.92%
70	1.53%	0.92%
75	1.53%	0.92%

30% of active disabilities are assumed to be duty-related

Service	Withdrawal	
	Male	Female
1	12.00%	18.00%
2-4	12.00%	16.00%
5	12.00%	14.00%
6	10.00%	14.00%
7	10.00%	12.00%
8	9.00%	11.00%
9	7.00%	8.00%
10-11	6.00%	8.00%
12	5.00%	7.00%
13	4.00%	6.00%
14	4.00%	5.00%
15	3.00%	4.00%
16	3.00%	3.00%
17-18	2.00%	2.00%
19-20	1.00%	1.00%
21+	0.00%	0.00%

c. Retirement Rates

Age	Normal	Early
50	25.00%	2.00%
51-56	18.00%	2.00%
57-60	20.00%	2.00%
61-62	17.00%	
63-64	20.00%	
65-69	50.00%	
70+	100.00%	

15% is assumed for members with at least 20 years of service before age 50

Exhibit II Wyoming Law Enforcement Retirement Fund Actuarial Assumptions and Methods

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: It is assumed that 45% of active members who terminate with a vested deferred 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 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 children are assumed for purposes of valuing the ordinary death benefit.
- 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. 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.
- n. Benefit Service: All members are assumed to accrue one year of service each year.

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II

Wyoming Law Enforcement Retirement Fund

Changes in Plan Provisions, Actuarial Assumptions and Methods

Changes in Plan Provisions

There have been no changes in the benefit provisions since the prior valuation.

Changes in Actuarial Assumptions and Methods

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.

Actuarial Assumptions and Methods - Paid Firemen's Pension Plan A

Exhibit III

Wyoming Paid Firemen's Retirement Fund Plan A Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 percentage 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. 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 10 years from the valuation date, as a level dollar amount.

3. Actuarial Value of Assets

The actuarial value of assets is based on the fair 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 fair 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 Fair Value. For any year following a year in which the 20% of fair

Exhibit III Wyoming Paid Firemen's Retirement Fund Plan A Actuarial Assumptions and Methods

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. This rate represents the assumed return, net of investment expenses.

b. Salary increase rate

4.50% per year

c. Payroll growth rate

In the amortization of the unfunded actuarial accrued liability, payroll is not assumed to increase. The assumed payroll growth in a closed plan is 0%.

5. Demographic Assumptions

a. Mortality

Healthy Pre-Retirement Mortality:

RP-2014 Mortality Table for Healthy Employees 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%

Healthy Post-Retirement Mortality:

RP-2014 Mortality Table for Healthy Annuitants 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%

Disabled Mortality

RP-2014 Disabled 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%

Actuarial Assumptions and Methods - Paid Firemen's Pension Plan A

Exhibit III

Wyoming Paid Firemen's Retirement Fund Plan A Actuarial Assumptions and Methods

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2022 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.04%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.19%	0.09%
30	0.05%	0.02%	0.08%	0.05%	0.49%	0.23%
35	0.06%	0.03%	0.13%	0.09%	0.92%	0.45%
40	0.07%	0.04%	0.19%	0.14%	1.32%	0.68%
45	0.09%	0.06%	0.26%	0.18%	1.62%	0.90%
50	0.16%	0.10%	0.37%	0.23%	1.88%	1.13%
55	0.26%	0.16%	0.54%	0.31%	2.19%	1.42%
60	0.46%	0.25%	0.76%	0.46%	2.61%	1.71%
65	0.82%	0.36%	1.09%	0.69%	3.14%	2.04%
70	1.33%	0.59%	1.61%	1.06%	3.87%	2.63%
75			2.50%	1.70%	5.06%	3.80%
80			4.15%	2.87%	7.10%	5.72%
85			7.23%	5.06%	10.57%	8.58%
90			12.80%	9.02%	16.29%	12.69%
95			20.57%	15.05%	23.26%	18.71%
100			30.00%	23.03%	31.22%	26.88%

b. Disability and Withdrawal

Age	Disability	Withdrawal
20	0.03%	12.00%
25	0.03%	8.00%
30	0.03%	5.00%
35	0.19%	3.00%
40	0.42%	1.00%
45	0.65%	1.00%
50	0.82%	1.00%
55	1.81%	0.50%
60	2.00%	0.50%

c. Retirement Rates

Age	Rate	Age	Rate
50	20%	57	25%
51	25%	58	25%
52	25%	59	25%
53	25%	60	100%
54	25%	61	100%
55	25%	62	100%
56	25%		

Exhibit III Wyoming Paid Firemen's Retirement Fund Plan A Actuarial Assumptions and Methods

6. Other Assumptions

- a. Percent married: 100.00% 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 20 years after hire date.
- f. No benefit amount data is available for members entitled to deferred benefits. The present value of benefits expected to be paid to vested inactive non-retired members is approximated using the data provided.
- g. There will be no recoveries once disabled. We assume all disabled members are totally disabled.
- h. Administrative expenses: Assumed to be the average of the prior two years, with each year projected at 2.50% to the valuation date.
- i. 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.
- j. Decrement timing: Decrements of all types are assumed to occur mid-year.
- k. 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.
- l. 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.
- m. Benefit Service: All members are assumed to accrue one year of service each year.

Exhibit III

Wyoming Paid Firemen's Retirement Fund Plan A

Changes in Plan Provisions, Actuarial Assumptions and Methods

Changes in Plan Provisions

The plan provisions have been updated since the prior valuation to reflect Enrolled Act No. 6, effective April 1, 2022, which ends the 3.00% cost-of-living adjustment and states that there will not be any cost-of-living adjustments going forward.

Changes in Actuarial Assumptions and Methods

The discount rate was increased from 1.00% as of January 1, 2021 to 6.80% as of January 1, 2022.

Actuarial Assumptions and Methods - Paid Firemen's Pension Plan B

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 percentage 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) or the surplus amount.

- 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 accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. Amortization bases are established each year and amortized based on the Board's policy. 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 fair value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Expected

Actuarial Assumptions and Methods - Paid Firemen's Pension Plan B

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B Actuarial Assumptions and Methods

investment income is determined using the assumed investment return rate and the fair value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of investment expenses. An adjustment is made if the actuarial value is not within 20% of the Fair Value. For any year following a year in which the 20% of fair 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

Age	Rate
< 20	7.50%
20-25	7.50%
25-29	7.00%
30-35	5.50%
35 +	4.50%

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. Rates Before Retirement

Healthy Pre-Retirement Mortality:

Pub-2010 Safety 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 Safety 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 100%

Actuarial Assumptions and Methods - Paid Firemen's Pension Plan B

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B Actuarial Assumptions and Methods

Disabled Mortality

Pub-2010 Safety 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 2022 using the Scale MP-2020 Ultimate Scale					
	Male	Female	Male	Female	Male	Female
20	0.03%	0.01%	0.03%	0.01%	0.10%	0.05%
25	0.03%	0.02%	0.03%	0.02%	0.09%	0.06%
30	0.03%	0.02%	0.03%	0.02%	0.10%	0.08%
35	0.04%	0.03%	0.04%	0.03%	0.12%	0.10%
40	0.05%	0.04%	0.05%	0.04%	0.15%	0.14%
45	0.07%	0.06%	0.10%	0.07%	0.21%	0.19%
50	0.10%	0.08%	0.16%	0.13%	0.30%	0.26%
55	0.15%	0.10%	0.26%	0.22%	0.41%	0.39%
60	0.22%	0.14%	0.43%	0.38%	0.62%	0.59%
65	0.35%	0.19%	0.75%	0.66%	1.01%	0.91%
70	0.66%	0.39%	1.35%	1.14%	1.64%	1.39%
75			2.45%	1.99%	2.81%	2.12%
80			4.47%	3.47%	4.90%	3.47%
85			8.23%	6.16%	8.30%	6.16%
90			14.70%	10.95%	14.70%	10.95%
95			22.73%	18.07%	22.73%	18.07%
100			31.45%	27.16%	31.45%	27.16%

100% of active deaths and disabilities are assumed to be duty-related.

b. Disability and Withdrawal

Age	Disability	Withdrawal
20	0.02%	10.00%
25	0.02%	6.00%
30	0.02%	4.00%
35	0.15%	2.50%
40	0.34%	2.00%
45	0.52%	1.50%
50	0.66%	1.50%
55	1.45%	0.50%
60	1.60%	0.50%

Actuarial Assumptions and Methods - Paid Firemen's Pension Plan B

Exhibit IV Wyoming Paid Firemen's Retirement Fund Plan B Actuarial Assumptions and Methods

c. Retirement Rates

Age	Rate
50	25.00%
51	10.00%
52	10.00%
53	10.00%
54	10.00%
55	25.00%
56	25.00%
57	25.00%
58	15.00%
59	15.00%
60	25.00%
61	50.00%
62	100.00%

Exhibit IV Wyoming Paid Firemen's Retirement Fund Plan B Actuarial Assumptions and Methods

6. Other Assumptions

- a. Percent married: 100.00% 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 50.
- f. No benefit amount data is available for members entitled to deferred benefits. The present value of benefits expected to be paid to vested inactive non-retired members is approximated using the data provided.
- g. There will be no recoveries once disabled. We assume all disabled members are totally disabled.
- h. Administrative expenses: Assumed to be the average of the prior two years, with each year projected at 2.50% to the valuation date.
- i. 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.
- j. Decrement timing: Decrements of all types are assumed to occur mid-year.
- k. 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.
- l. 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.
- m. Benefit Service: All members are assumed to accrue one year of service each year.

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B

Changes in Plan Provisions, Actuarial Assumptions and Methods

Changes in Plan Provisions

Effective July 1, 2022 the employee contribution rate will increase from 10.745% to an ultimate rate of 11.245% and the employer contribution rate will increase from 15.00% to an ultimate rate of 16.00%.

There have been no other changes in the benefit provisions since the prior valuation.

Changes in Actuarial Assumptions and Methods

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.

Exhibit V

Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund

Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 percentage 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 accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. Amortization bases are established each year and amortized based on the Board's policy. 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.

Exhibit V Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund Actuarial Assumptions and Methods

3. Actuarial Value of Assets

The actuarial value of assets is based on the fair 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 fair 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 Fair Value. For any year following a year in which the 20% of fair 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

Age	Rate
20	8.50%
25	8.00%
30	5.75%
35	4.00%
40	3.00%
45	3.00%
50	3.00%
55	2.50%
60	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.

Exhibit V Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund Actuarial Assumptions and Methods

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Pre-Retirement Mortality:

Pub-2010 Safety 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 Safety 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 100%

Disabled Mortality:

Pub-2010 Safety 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 2022 using the MP-2020 Ultimate Scale					
	Male	Female	Male	Female	Male	Female
20	0.03%	0.01%	0.03%	0.01%	0.10%	0.05%
25	0.03%	0.02%	0.03%	0.02%	0.09%	0.06%
30	0.03%	0.02%	0.03%	0.02%	0.10%	0.08%
35	0.04%	0.03%	0.04%	0.03%	0.12%	0.10%
40	0.05%	0.04%	0.05%	0.04%	0.15%	0.14%
45	0.07%	0.06%	0.10%	0.07%	0.21%	0.19%
50	0.10%	0.08%	0.16%	0.13%	0.30%	0.26%
55	0.15%	0.10%	0.26%	0.22%	0.41%	0.39%
60	0.22%	0.14%	0.43%	0.38%	0.62%	0.59%
65	0.35%	0.19%	0.75%	0.66%	1.01%	0.91%
70	0.66%	0.39%	1.35%	1.14%	1.64%	1.39%
75			2.45%	1.99%	2.81%	2.12%
80			4.47%	3.47%	4.90%	3.47%
85			8.23%	6.16%	8.30%	6.16%
90			14.70%	10.95%	14.70%	10.95%
95			22.73%	18.07%	22.73%	18.07%
100			31.45%	27.16%	31.45%	27.16%

100% of active deaths are assumed to be duty-related

Exhibit V
Wyoming State Highway Patrol, Game & Fish Warden and Criminal
Investigator Retirement Fund
Actuarial Assumptions and Methods

b. Disability and Withdrawal

Age	Disability	Withdrawal
20	0.10%	4.50%
25	0.10%	4.50%
30	0.23%	4.50%
35	0.39%	4.50%
40	0.57%	3.00%
45	0.73%	3.00%
50	0.75%	1.00%
55	0.75%	1.00%
60	0.75%	1.00%

100% of active disabilities are assumed to be duty-related

c. Retirement Rates

Age	Rate
50	15.00%
51	5.00%
52	5.00%
53	5.00%
54	10.00%
55	10.00%
56	10.00%
57	15.00%
58	15.00%
59	15.00%
60	35.00%
61	40.00%
62	100.00%

Exhibit V Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund Actuarial Assumptions and Methods

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 50.
- 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. Administrative expenses: Average of actual expenses for the prior two years, with each year projected at 2.50% to the valuation date.
- i. 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.
- j. Decrement timing: Decrements of all types are assumed to occur mid-year.
- k. 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.
- l. 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.
- m. Benefit service: All members are assumed to accrue one year of service each year.

Exhibit V
Wyoming State Highway Patrol, Game & Fish Warden and Criminal
Investigator Retirement Fund
Changes in Plan Provisions, Actuarial Assumptions and Methods

Changes in Plan Provisions

There have been no changes in the benefit provisions since the prior valuation.

Changes in Actuarial Assumptions and Methods

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.

Exhibit VI

Wyoming Judicial Retirement System

Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 expected. 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 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.

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

3. Actuarial Value of Assets

The actuarial value of assets is based on the fair 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 fair 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 Fair Value. For any year following a year in which the 20% of fair 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%

Actuarial Assumptions and Methods - Judicial Plan

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

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 2022 using Scale MP-2017					
	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%	0.34%
40	0.06%	0.03%	0.06%	0.03%	0.55%	0.53%
45	0.08%	0.05%	0.09%	0.06%	0.86%	0.84%
50	0.13%	0.07%	0.25%	0.19%	1.36%	1.26%
55	0.19%	0.10%	0.37%	0.25%	1.80%	1.48%
60	0.27%	0.16%	0.52%	0.34%	2.13%	1.66%
65	0.40%	0.25%	0.78%	0.54%	2.60%	1.93%
70	0.61%	0.42%	1.31%	0.94%	3.36%	2.46%
75			2.32%	1.68%	4.51%	3.48%
80			4.18%	3.03%	6.43%	5.26%
85			7.74%	5.75%	9.74%	8.40%
90			13.60%	10.97%	15.07%	12.67%
95			21.81%	18.48%	22.51%	18.39%
100			31.45%	27.98%	31.45%	27.16%

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.

Actuarial Assumptions and Methods - Judicial Plan

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

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%

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

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 disabled 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.

Actuarial Assumptions and Methods - Judicial Plan

Exhibit VI

Wyoming Judicial Retirement System

Changes in Plan Provisions, Actuarial Assumptions and Methods

Changes in Plan Provisions

There have been no changes to plan provisions since the prior valuation.

Changes in Actuarial Assumptions and Methods

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.

Actuarial Assumptions and Methods - Air Guard Firefighter Plan

Exhibit VII Wyoming Air Guard Firefighter Retirement System Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. Amortization bases are established each year and amortized based on the Board's policy. 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.

Actuarial Assumptions and Methods - Air Guard Firefighter Plan

Exhibit VII

Wyoming Air Guard Firefighter Retirement System Actuarial Assumptions and Methods

3. Actuarial Value of Assets

The actuarial value of assets is based on the fair 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 fair 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 Fair Value. For any year following a year in which the 20% of fair 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	Service	Rate
1	6.50%	14	3.25%
2	6.50%	15	3.00%
3	6.50%	16	3.00%
4	6.00%	17	2.75%
5	5.25%	18	2.75%
6	4.75%	19	2.75%
7	4.25%	20	2.75%
8	4.00%	21	2.50%
9	4.00%	22	2.50%
10	3.50%	23	2.50%
11	3.50%	24	2.50%
12	3.50%	25	2.50%
13	3.50%	25+	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.

Actuarial Assumptions and Methods - Air Guard Firefighter Plan

Exhibit VII Wyoming Air Guard Firefighter Retirement System Actuarial Assumptions and Methods

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 2022 using Scale MP-2020					
	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%	0.34%
40	0.06%	0.03%	0.06%	0.03%	0.55%	0.53%
45	0.08%	0.05%	0.09%	0.06%	0.86%	0.84%
50	0.13%	0.07%	0.25%	0.19%	1.36%	1.26%
55	0.19%	0.10%	0.37%	0.25%	1.80%	1.48%
60	0.27%	0.16%	0.52%	0.34%	2.13%	1.66%
65	0.40%	0.25%	0.78%	0.54%	2.60%	1.93%
70	0.61%	0.42%	1.31%	0.94%	3.36%	2.46%
75			2.32%	1.68%	4.51%	3.48%
80			4.18%	3.03%	6.43%	5.26%
85			7.74%	5.75%	9.74%	8.40%
90			13.60%	10.97%	15.07%	12.67%
95			21.81%	18.48%	22.51%	18.39%
100			31.45%	27.98%	31.45%	27.16%

Actuarial Assumptions and Methods - Air Guard Firefighter Plan

Exhibit VII Wyoming Air Guard Firefighter Retirement System Actuarial Assumptions and Methods

b. Disability and Withdrawal

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	0.03%	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

Withdrawal		
Service	Male	Female
1	13.00%	14.00%
2	13.00%	14.00%
3	13.00%	14.00%
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%
20+	3.00%	6.00%

Actuarial Assumptions and Methods - Air Guard Firefighter Plan

Exhibit VII

Wyoming Air Guard Firefighter Retirement System Actuarial Assumptions and Methods

c. Retirement Rates

Age	Retirement	
	Unreduced	Reduced
<50	15.0%	0.2%
50	15.0%	0.2%
51	15.0%	0.2%
52	15.0%	0.3%
53	15.0%	0.5%
54	15.0%	0.5%
55	17.0%	1.0%
56	17.0%	1.0%
57	17.0%	1.0%
58	17.0%	1.5%
59	17.0%	2.0%
60	13.0%	2.5%
61	13.0%	2.5%
62	18.0%	2.5%
63	15.0%	2.5%
64	15.0%	2.5%
65	30.0%	2.5%
66	35.0%	2.5%
67	28.0%	2.5%
68	25.0%	2.5%
69	25.0%	2.5%
70	25.0%	2.5%
71	20.0%	2.5%
72	20.0%	2.5%
73	20.0%	2.5%
74	15.0%	2.5%
75	15.0%	2.5%
76	15.0%	2.5%
77	15.0%	2.5%
78	15.0%	2.5%
79	15.0%	2.5%
80+	100.0%	100.0%

Actuarial Assumptions and Methods - Air Guard Firefighter Plan

Exhibit VII Wyoming Air Guard Firefighter Retirement System Actuarial Assumptions and Methods

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 present value of benefits expected to be paid to vested inactive non-retired members is approximated using the data provided.
- g. There will be no recoveries once disabled.
- h. 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.
- i. 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.
- j. Decrement timing: Decrements of all types are assumed to occur mid-year.
- k. 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.
- l. 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.
- m. 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.

Actuarial Assumptions and Methods - Air Guard Firefighter Plan

Exhibit VII

Wyoming Air Guard Firefighter Retirement System Changes in Plan Provisions, Actuarial Assumptions and Methods

Changes in Plan Provisions

There have been no changes to plan provisions since the prior valuation.

Changes in Actuarial Assumptions and Methods

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.

Exhibit VIII Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Fund Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2022 actuarial valuation report.

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 dollar amount. Under this method, the employer contribution amount is the sum of (i) the employer normal cost amount, and (ii) the amount 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, and sex. 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, or survivor's benefit. 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 employer contribution amount which, if applied to 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 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 fair 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 fair value of assets

Exhibit VIII Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Fund Actuarial Assumptions and Methods

(adjusted for receipts and disbursements during the year). The returns are computed net of investment expenses. An adjustment is made if the actuarial value is not within 20% of the Fair Value. For any year following a year in which the 20% of fair value adjustment was applied, the actuarial value is determined as if the adjustment was not applied in the previous year.

4. Economic Assumptions

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.

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Pre-Retirement Mortality:

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

Males: No set back with a multiplier of 100%

Females: No set back with a multiplier of 103%

Age	Pre-Retirement		Post-Retirement	
	Projected to 2022 using the MP-2020 Ultimate Scale			
	Male	Female	Male	Female
20	0.03%	0.01%	0.03%	0.01%
25	0.02%	0.01%	0.02%	0.01%
30	0.03%	0.01%	0.03%	0.01%
35	0.04%	0.02%	0.04%	0.02%
40	0.06%	0.03%	0.06%	0.03%
45	0.08%	0.05%	0.09%	0.06%
50	0.13%	0.07%	0.25%	0.19%
55	0.19%	0.10%	0.37%	0.25%
60	0.27%	0.16%	0.52%	0.34%
65	0.40%	0.25%	0.78%	0.54%
70	0.61%	0.42%	1.31%	0.94%
75			2.32%	1.68%
80			4.18%	3.03%
85			7.74%	5.75%
90			13.60%	10.97%
95			21.81%	18.48%
100			31.45%	27.98%

Exhibit VIII Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Fund Actuarial Assumptions and Methods

b. Withdrawal Rates

Age	Withdrawal	
	Male	Female
20	10.00%	10.00%
25	6.00%	6.00%
30	5.00%	5.00%
35	4.00%	4.00%
40	4.00%	4.00%
45	3.00%	3.00%
50	2.50%	2.50%
55	1.50%	1.50%
60	1.00%	1.00%

c. Retirement Rates

Age	Rates
<60	0.0%
60	55.0%
61	25.0%
62	15.0%
63	15.0%
64	15.0%
65	25.0%
66	30.0%
67	20.0%
68	20.0%
69	20.0%
70	100.0%

Exhibit VIII Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Fund Actuarial Assumptions and Methods

6. Other Assumptions

- a. Percent married: 85% 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. Administrative expenses: Average of actual expenses for the prior two years, with each year projected at 2.50% to the valuation date.
- e. Decrement timing: Decrements of all types are assumed to occur mid-year.
- f. 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.
- g. Incidence of contributions: Contributions are assumed to be received continuously throughout the year.
- h. Benefit service: All members are assumed to accrue one year of service each year.
- i. Premium tax allocation: Provided by staff and based on booked total premium taxes.
- j. Percent of eligible deferred vested members electing a refund: 25% of all future deferred vested members are assumed to leave their contributions in the fund and elect a deferred vested annuity payable commencing at age 60.
- k. No benefit data is available for members entitled to deferred benefits. The benefit is estimated using the final average compensation and service provided by WRS.

Exhibit VIII Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Fund

Changes in Plan Provisions, Actuarial Assumptions and Methods

Merger of the Volunteer Plans

Effective July 1, 2015, the Volunteer Firemen's Pension Fund and the Volunteer Emergency Medical Technician Pension Fund were merged into one plan, the Volunteer Firefighter and Emergency Medical Technician Pension Fund.

Changes in Plan Provisions

There have been no changes to plan provisions since the prior valuation.

Changes in Actuarial Assumptions and Methods

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.

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Actuarial Summary

Assets

As shown in the Statement of Fiduciary Net Position (located in the Financial Section) as of December 31, 2021, net position totaled \$10,917,527,395 at fair value; compared to \$9,643,388,656 the prior year. This represents an increase of 13.21%.

For the Public Employee Pension Plan, there is a difference of approximately \$1 billion between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$8,389,355,255, which is \$562 million higher than last year's actuarial value of \$7,827,625,526.

For the Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Pension Plan, there is an approximate difference of \$20.0 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$170,067,180 which is 8.33% higher than last year's value of \$156,996,868.

For the Volunteer Firefighter, EMT, and Search & Rescue Pension Plan, there is an approximate difference of \$10.7 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$97,999,632, which is 8.81% higher than last year's value of \$90,065,676.

For the Paid Firemen's Pension Plan A, there is an approximate difference of \$2.4 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$71,006,860, which is 16.43% lower than last year's value of \$84,969,035.

For the Paid Firemen's Pension Plan B, there is an approximate difference of \$22.3 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$196,392,646, which is 11.62% higher than last year's value of \$175,946,438.

For the Wyoming Judicial Pension Plan, there is an approximate difference of \$4.4 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$39,362,946, which is 11.00% higher than last year's value of \$35,463,586.

For the Wyoming Law Enforcement Pension Plan, there is an approximate difference of \$92.8 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$789,572,141, which is 9.31% higher than last year's value of \$722,308,507.

For the Air Guard Firefighter Pension Plan, there is an approximate difference of \$1.1 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$9,544,656, which is 7.42% higher than last year's value of \$8,885,761.

Results of Actuarial Valuation

An actuarial cost procedure, known as the individual entry age normal actuarial cost method, for funding all benefits has been utilized. This method is used in situations where a cost is desired which will remain relatively level as a percentage of the participating payroll.

Under the individual entry age normal actuarial method, the total contribution requirement has three components: an annual normal cost, an allowance for administrative expenses, and a payment with respect to the unfunded actuarial accrued liability (UAAL).

The annual normal cost is calculated as the level percentage of pay required over each employee's period of covered employment to fund the total expected benefits. If the average entry age remains stable, the total normal cost rate should remain a level percentage of payrolls.

The normal cost payments are not sufficient to finance the benefit program when there is an unfunded actuarial liability. An unfunded actuarial liability may be created by changes in the benefits, actuarial assumptions, or funding method and by experience, which differs from that projected by the actuarial assumptions. When plan assets exceed the actuarial liability, there is a negative unfunded liability indicating that past changes and experience have been favorable.

The cost of funding (or amortizing) the unfunded actuarial accrued liability (UAAL) was calculated over an open period. This methodology was adopted by the Retirement Board effective January 1, 2008. This amortization is added to the normal cost with administrative expenses to determine the total cost.

Schedule of Active Member Valuation Data

Funding Status

It is the responsibility of the WRS Board to develop and maintain funding policy.

One measure of the progress of funding a retirement plan is by funding ratios. The funding ratio represents the percentage of plan assets to plan liabilities, which are both measured as of a point in time. See schedule of funding progress included at the end of this section of the report.

Funding Basis –Actuarial Accrued Liability

This measure of liabilities is used in calculating pension costs. It uses the Entry Age Normal Actuarial Cost method that spreads costs as a level percentage of payrolls over a participant's working career.

For determining plan costs, a smoothed value of assets (called actuarial value) is used. Hence, for this ratio, the actuarial value of assets is used.

Public Employee Pension Plan						
Valuation Date	Reporting Agencies	Current Employees	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2013	481	36,444	\$1,782,069	\$48,899	0.4%	\$4,075
1/1/2014	485	36,354	\$1,782,062	\$49,020	0.2%	\$4,085
1/1/2015	478	36,489	\$1,818,197	\$49,829	1.7%	\$4,152
1/1/2016	479	36,577	\$1,858,678	\$50,816	2.0%	\$4,235
1/1/2017	479	35,892	\$1,851,874	\$51,596	1.5%	\$4,300
1/1/2018	476	35,013	\$1,784,888	\$50,978	-1.2%	\$4,248
1/1/2019	477	34,873	\$1,781,668	\$51,090	0.2%	\$4,258
1/1/2020	485	35,206	\$1,824,979	\$51,837	1.5%	\$4,320
1/1/2021	490	35,110	\$1,865,426	\$53,131	2.5%	\$4,428
1/1/2022	489	34,533	\$1,850,671	\$53,591	0.9%	\$4,466

*Annual Payroll in Thousands

Wyoming State Highway Patrol, Game & Fish, and Criminal Investigator Pension Plan						
Valuation Date	Reporting Agencies	Current Employees	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2013	3	322	\$24,425	\$75,854	-1.1%	\$6,321
1/1/2014	3	303	\$22,745	\$75,066	-1.0%	\$6,256
1/1/2015	3	304	\$23,140	\$76,119	1.4%	\$6,343
1/1/2016	3	317	\$24,641	\$77,732	2.1%	\$6,478
1/1/2017	3	315	\$24,646	\$78,242	0.7%	\$6,520
1/1/2018	3	304	\$23,640	\$77,762	-0.6%	\$6,480
1/1/2019	3	304	\$23,697	\$77,950	0.2%	\$6,496
1/1/2020	3	312	\$24,676	\$79,091	1.5%	\$6,591
1/1/2021	3	315	\$24,806	\$78,751	-0.4%	\$6,563
1/1/2022	3	298	\$24,083	\$80,814	2.6%	\$6,735

*Annual Payroll in Thousands

Schedule of Active Member Valuation Data

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan						
Valuation Date	Reporting Agencies	Current Employees	Average Contribution*	Average Age	Average Years of Service	
1/1/2016	128	2,379	\$5,370	45	11	
1/1/2017	125	2,320	\$5,468	45	11	
1/1/2018	122	2,318	\$5,545	45	11	
1/1/2019	122	2,347	\$5,543	44	11	
1/1/2020	121	2,417	\$5,604	44	11	
1/1/2021	121	2,391	\$5,660	45	11	
1/1/2022	123	2,366	\$5,754	45	11	

*Average Contribution in Thousands

Note: The statutes that govern this Pension Plan specifies that contributions are to be a fixed amount per month.

Paid Firemen's Pension Plan A						
Valuation Date	Reporting Agencies	Current Employees	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2013	4	7	\$486	\$69,467	1.0%	\$5,789
1/1/2014	2	3	\$198	\$66,135	-4.8%	\$5,511
1/1/2015	2	3	\$179	\$59,829	-9.5%	\$4,986
1/1/2016	2	3	\$195	\$65,074	8.8%	\$5,423
1/1/2017	2	3	\$195	\$65,074	0.0%	\$5,423
1/1/2018	2	2	\$134	\$67,077	3.1%	\$5,590
1/1/2019	2	1	\$66	\$65,621	-2.2%	\$5,468
1/1/2020	1	1	\$66	\$65,621	0.0%	\$5,468
1/1/2021	1	1	\$66	\$65,621	0.0%	\$5,468
1/1/2022	0	0	\$-	\$-	-100.0%	\$-

*Annual Payroll in Thousands

Paid Firemen's Pension Plan B						
Valuation Date	Reporting Agencies	Current Employees	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2013	16	356	\$24,211	\$68,008	-1.6%	\$5,667
1/1/2014	16	368	\$25,596	\$69,554	2.3%	\$5,796
1/1/2015	16	369	\$27,091	\$73,417	5.6%	\$6,118
1/1/2016	16	372	\$27,512	\$73,957	0.7%	\$6,163
1/1/2017	16	371	\$29,409	\$79,268	7.2%	\$6,606
1/1/2018	16	363	\$27,481	\$75,706	-4.5%	\$6,309
1/1/2019	16	365	\$28,729	\$78,710	4.0%	\$6,559
1/1/2020	16	374	\$29,272	\$78,267	-0.6%	\$6,522
1/1/2021	16	376	\$30,723	\$81,710	4.4%	\$6,809
1/1/2022	16	386	\$32,033	\$82,987	1.6%	\$6,916

*Annual Payroll in Thousands

Schedule of Active Member Valuation Data

Judicial Pension Plan						
Valuation Date	Reporting Agencies	Current Employees	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2013	1	41	\$5,411	\$131,967	8.6%	\$10,997
1/1/2014	1	44	\$6,214	\$141,222	7.0%	\$11,769
1/1/2015	1	46	\$6,602	\$143,514	1.6%	\$11,960
1/1/2016	1	46	\$6,624	\$144,001	0.3%	\$12,000
1/1/2017	1	46	\$6,625	\$144,032	0.0%	\$12,003
1/1/2018	1	47	\$6,820	\$145,114	0.8%	\$12,093
1/1/2019	1	47	\$6,866	\$146,094	0.7%	\$12,175
1/1/2020	1	50	\$7,707	\$154,139	5.5%	\$12,845
1/1/2021	1	51	\$8,202	\$160,819	4.3%	\$13,402
1/1/2022	1	53	\$8,502	\$160,410	-0.3%	\$13,368

*Annual Payroll in Thousands

Law Enforcement Pension Plan						
Valuation Date	Reporting Agencies	Current Employees	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2013	80	2,834	\$157,764	\$55,668	1.9%	\$4,639
1/1/2014	80	2,808	\$154,072	\$54,869	-1.4%	\$4,572
1/1/2015	78	2,755	\$156,792	\$56,912	3.7%	\$4,743
1/1/2016	78	2,761	\$161,357	\$58,442	2.7%	\$4,870
1/1/2017	78	2,719	\$160,073	\$58,872	0.7%	\$4,906
1/1/2018	78	2,661	\$155,696	\$58,510	-0.6%	\$4,876
1/1/2019	81	2,662	\$159,748	\$60,010	2.6%	\$5,001
1/1/2020	81	2,660	\$164,758	\$61,939	3.2%	\$5,162
1/1/2021	81	2,646	\$170,285	\$64,355	3.9%	\$5,363
1/1/2022	78	2,579	\$165,441	\$64,149	-0.3%	\$5,346

*Annual Payroll in Thousands

Air Guard Firefighter Pension Plan						
Valuation Date	Reporting Agencies	Current Employees	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2013	1	31	\$1,866	\$60,206	-5.1%	\$5,017
1/1/2014	1	31	\$1,805	\$58,236	-3.3%	\$4,853
1/1/2015	1	38	\$2,215	\$58,278	0.1%	\$4,857
1/1/2016	1	36	\$2,243	\$62,318	6.9%	\$5,193
1/1/2017	1	35	\$2,060	\$58,846	-5.6%	\$4,904
1/1/2018	1	38	\$2,208	\$58,116	-1.2%	\$4,843
1/1/2019	1	41	\$2,400	\$58,535	0.7%	\$4,878
1/1/2020	1	41	\$2,374	\$57,903	-1.1%	\$4,825
1/1/2021	1	38	\$2,212	\$58,204	0.5%	\$4,850
1/1/2022	1	38	\$2,199	\$57,870	-0.6%	\$4,823

*Annual Payroll in Thousands

Schedule of Retirees & Beneficiaries Added to & Removed from Rolls

Public Employee Pension Plan								
Added to Rolls			Removed from Rolls					
Fiscal Year	Number	Annual Pension Benefits* (\$)	Number	Annual Pension Benefits* (\$)	Rolls-End of Year Number	Annual Pension Benefits** (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
2012	1,497	\$35,647	(585)	\$(6,920)	21,600	\$368	8.5	\$17,020
2013	1,745	39,634	(614)	(8,228)	22,731	399	8.5	17,555
2014	1,755	42,076	(726)	(9,207)	23,760	432	8.2	18,178
2015	1,657	38,446	(689)	(9,453)	24,728	461	6.7	18,639
2016	1,768	43,328	(728)	(9,191)	25,768	495	7.4	19,211
2017	1,806	43,470	(766)	(10,396)	26,808	528	6.7	19,700
2018	1,786	41,353	(812)	(10,936)	27,782	559	5.8	20,104
2019	1,773	42,281	(805)	(11,779)	28,750	589	5.5	20,488
2020	1,585	36,819	(928)	(13,759)	29,407	612	3.9	20,815
2021	1,843	45,101	(1,024)	(14,783)	30,226	642	5.0	21,254

* Amounts in Thousands ** Amounts in Millions

Wyoming State Highway Patrol, Game & Fish, and Criminal Investigator Pension Plan								
Added to Rolls			Removed from Rolls					
Fiscal Year	Number	Annual Pension Benefits (\$)	Number	Annual Pension Benefits* (\$)	Rolls-End of Year Number	Annual Pension Benefits (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
2012	14	\$442,263	(10)	\$(164,287)	284	\$7,691,502	3.8	\$27,083
2013	12	524,215	(6)	(150,013)	290	8,065,703	4.9	27,813
2014	29	835,107	(11)	(292,130)	308	8,608,680	6.7	27,950
2015	20	714,877	(8)	(176,195)	320	9,147,362	6.3	28,586
2016	15	467,619	(12)	(191,375)	323	9,523,606	4.1	29,485
2017	19	715,125	(12)	(232,044)	330	10,006,686	5.1	30,323
2018	14	493,355	(4)	(54,193)	340	10,445,848	4.4	30,723
2019	18	732,241	(7)	(137,131)	351	11,040,958	5.7	31,456
2020	13	572,957	(10)	(318,889)	354	11,295,026	2.3	31,907
2021	25	923,856	(14)	(326,654)	365	11,892,228	5.3	32,581

Volunteer Firefighter, EMT, and Search & Rescue Pension Plan								
Added to Rolls			Removed from Rolls					
Fiscal Year	Number	Annual Pension Benefits (\$)	Number	Annual Pension Benefits (\$)	Rolls-End of Year Number	Annual Pension Benefits (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
2014	106	\$368,168	(35)	\$(114,448)	1,251	\$4,250,343	N/A	\$3,398
2015*	81	1,113,515	(25)	(74,858)	1,307	5,289,000	24.4	4,047
2016*	108	461,121	(40)	(130,252)	1,375	5,619,869	6.3	4,087
2017	99	414,899	(41)	(139,273)	1,433	5,895,495	4.9	4,114
2018	101	459,658	(39)	(123,709)	1,495	6,231,444	5.7	4,168
2019	92	379,616	(32)	(109,286)	1,555	6,501,774	4.3	4,181
2020	107	527,633	(54)	(185,445)	1,608	6,843,962	5.3	4,256
2021	94	416,106	(56)	(190,996)	1,646	7,069,072	3.3	4,295

* Added to amounts include increased benefit amounts under the provisions of the new plan.

Note: Information not available before 2014.

Schedule of Retirees & Beneficiaries Added to & Removed from Rolls

Paid Firemen's Pension Plan A

Fiscal Year	Added to Rolls		Removed from Rolls		Rolls-End of Year Number	Annual Pension Benefits (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
	Number	Annual Pension Benefits (\$)	Number	Annual Pension Benefits (\$)				
2012	3	\$481,949	(7)	\$(308,184)	295	\$14,176,304	1.2	\$48,055
2013	10	935,977	(13)	(635,129)	292	14,477,152	2.1	49,579
2014	4	578,284	(7)	(351,046)	289	14,704,390	1.6	50,880
2015	7	820,788	(14)	(665,571)	282	14,859,607	1.1	52,694
2016	3	618,031	(3)	(180,254)	282	15,297,384	3.0	54,246
2017	6	737,535	(7)	(376,512)	281	15,658,407	2.4	55,724
2018	4	698,064	(9)	(455,714)	276	15,900,757	1.6	57,611
2019	3	698,898	(6)	(422,589)	273	16,177,066	1.7	59,257
2020	5	758,253	(14)	(840,476)	264	16,094,843	-0.5	60,965
2021	13	1,075,026	(18)	(1,073,712)	259	16,096,157	0.0	62,147

Paid Firemen's Pension Plans B

Fiscal Year	Added to Rolls		Removed from Rolls		Rolls-End of Year Number	Annual Pension Benefits (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
	Number	Annual Pension Benefits (\$)	Number	Annual Pension Benefits (\$)				
2012	7	\$278,412	-	\$-	74	\$2,635,354	11.8	\$35,613
2013	7	274,075	-	-	81	2,909,429	10.4	35,919
2014	11	481,088	(2)	(71,846)	90	3,318,671	14.1	36,874
2015	11	631,130	(1)	(13,610)	100	3,936,191	18.6	39,362
2016	15	726,211	-	-	115	4,662,401	18.5	40,543
2017	14	587,654	(1)	(12,361)	128	5,237,694	12.3	40,919
2018	12	475,307	(3)	(60,290)	137	5,652,712	7.9	41,261
2019	14	494,827	-	-	151	6,147,539	8.8	40,712
2020	10	521,170	(2)	(71,597)	159	6,597,112	7.3	41,491
2021	13	595,282	(1)	(21,714)	171	7,170,680	8.7	41,934

Judicial Pension Plan

Fiscal Year	Added to Rolls		Removed from Rolls		Rolls-End of Year Number	Annual Pension Benefits (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
	Number	Annual Pension Benefits (\$)	Number	Annual Pension Benefits (\$)				
2012	0	\$-	-	\$-	11	\$610,572	0.0	\$55,507
2013	2	113,010	-	-	13	723,582	18.5	55,660
2014	3	107,248	-	-	16	830,830	14.8	51,927
2015	2	150,491	-	-	18	981,321	18.1	54,518
2016	0	-	-	-	18	981,321	0.0	54,518
2017	4	307,625	-	-	22	1,288,946	31.4	58,588
2018	5	364,563	(1)	(67,372)	26	1,586,136	23.1	61,005
2019	4	279,699	-	-	30	1,865,835	17.6	62,195
2020	4	239,344	(3)	(144,876)	31	1,960,303	5.1	63,236
2021	1	85,754	-	-	32	2,046,057	4.4	63,939

Schedule of Retirees & Beneficiaries Added to & Removed from Rolls

Law Enforcement Pension Plan								
Added to Rolls			Removed from Rolls					
Fiscal Year	Number	Annual Pension Benefits (\$)	Number	Annual Pension Benefits (\$)	Rolls-End of Year Number	Annual Pension Benefits (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
2012	54	\$1,418,567	(7)	\$(62,989)	852	\$20,052,893	7.3	\$23,536
2013	77	2,048,141	(12)	(155,942)	917	21,945,092	9.4	23,931
2014	98	2,598,158	(14)	(250,849)	1,001	24,292,401	10.7	24,268
2015	83	2,229,651	(14)	(234,679)	1,070	26,287,373	8.2	24,568
2016	91	2,618,016	(14)	(239,572)	1,147	28,665,817	9.1	24,992
2017	83	2,325,313	(28)	(478,242)	1,202	30,512,888	6.4	25,385
2018	89	2,817,707	(17)	(254,449)	1,274	33,076,146	8.4	25,962
2019	111	3,086,125	(22)	(461,992)	1,363	35,700,279	7.9	26,192
2020	106	3,212,958	(27)	(487,974)	1,442	38,425,263	7.6	26,647
2021	114	3,265,415	(34)	(515,154)	1,522	41,175,524	7.2	27,054

Air Guard Firefighter Pension Plan								
Added to Rolls			Removed from Rolls					
Fiscal Year	Number	Annual Pension Benefits (\$)	Number	Annual Pension Benefits (\$)	Rolls-End of Year Number	Annual Pension Benefits (\$)	% Change in Annual Pension Benefit	Average Annual Pension Benefit (\$)
2012	0	\$-	-	\$-	2	\$40,129	0.0	\$20,065
2013	1	46,109	-	-	3	86,238	114.9	28,746
2014	2	66,242	-	-	5	152,480	76.8	30,496
2015	1	40,663	-	-	6	193,143	26.7	32,191
2016	3	138,890	-	-	9	332,033	71.9	36,893
2017	1	32,744	-	-	10	364,776	9.9	36,478
2018	1	27,581	-	-	11	392,357	7.6	35,669
2019	2	71,764	-	-	13	464,121	18.3	35,702
2020	2	74,397	-	-	15	538,518	16.0	35,901
2021	4	139,797	-	-	19	678,315	26.0	35,701

Solvency Test

Testing the financial solvency of a retirement system can be done in several ways. The funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the system are level in concept and soundly executed, and if the system continues its present operations pattern for the indefinite future, the system will pay all promised benefits when due, the ultimate test of financial soundness.

A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's present assets (cash and investments) are compared with:

1. Active members' contributions on deposit;
2. Liabilities for future benefits to present retired members;
3. Liabilities for service already rendered by active members.

In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired members (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. Generally, if the system has been using level cost financing, the funded portion of liability 3 will increase over time. Liability 3 being fully funded is very rare.

The tables that follow illustrate the progress of funding liability (3) of Wyoming Retirements System's nine plans, and is indicative of each plans' policy to follow the discipline of level contribution rate funding.

Public Employees Pension Plan							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2013	\$1,286,010	\$3,724,948	\$2,308,247	\$5,749,968	100%	100%	32.0%
1/1/2014	1,333,533	4,251,120	2,460,394	6,244,502	100%	100%	26.8%
1/1/2015	1,394,083	4,600,840	2,375,744	6,609,612	100%	100%	25.9%
1/1/2016	1,472,112	4,897,375	2,343,866	6,814,920	100%	100%	19.0%
1/1/2017	1,491,205	5,255,364	2,292,735	7,063,052	100%	100%	13.8%
1/1/2018	1,504,862	5,994,582	2,089,209	7,314,683	100%	97.0%	0.0%
1/1/2019	1,527,497	6,322,069	2,020,049	7,318,380	100%	92.0%	0.0%
1/1/2020	1,549,304	6,649,767	1,996,975	7,459,696	100%	89.0%	0.0%
1/1/2021	1,601,638	6,887,288	1,980,863	7,827,626	100%	90.0%	0.0%
1/1/2022	1,610,077	7,240,299	2,039,482	8,389,355	100%	94.0%	0.0%

* Amounts in Thousands

Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Pension Plan							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2013	\$27,760	\$79,144	\$28,676	\$106,038	100%	96.0%	0.0%
1/1/2014	31,224	87,447	31,318	116,151	100%	97.0%	0.0%
1/1/2015	32,458	93,060	30,684	123,681	100%	98.0%	0.0%
1/1/2016	33,664	100,994	29,864	128,598	100%	94.0%	0.0%
1/1/2017	25,855	103,925	29,471	134,609	100%	95.0%	0.0%
1/1/2018	36,388	119,189	25,035	140,712	100%	88.0%	0.0%
1/1/2019	37,280	124,477	24,776	142,735	100%	85.0%	0.0%
1/1/2020	37,807	131,970	25,186	147,896	100%	83.0%	0.0%
1/1/2021	38,487	136,502	23,674	156,997	100%	87.0%	0.0%
1/1/2022	37,913	145,970	25,222	170,067	100%	91.0%	0.0%

* Amounts in Thousands

Solvency Test

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2016	\$5,370	\$60,710	\$36,199	\$76,098	100%	100%	27.7%
1/1/2017	5,468	61,195	35,583	78,177	100%	100%	32.4%
1/1/2018	5,545	67,352	36,195	81,169	100%	100%	22.9%
1/1/2019	5,543	71,401	35,344	81,801	100%	100%	13.7%
1/1/2020	5,604	74,093	35,563	83,528	100%	100%	10.8%
1/1/2021	5,660	78,099	34,229	90,066	100%	100%	18.4%
1/1/2022	5,754	81,311	33,481	98,000	100%	100%	32.7%

The Volunteer Firefighter & Emergency Medical Technician Plans were consolidated on July 1, 2015. Search & Rescue Volunteers were added to the plan July 1, 2019.

* Amounts in Thousands

Paid Firemen's Pension Plan A							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2013	\$226	\$188,733	\$6,240	\$139,181	100%	73.6%	0.0%
1/1/2014	96	203,199	2,960	140,917	100%	69.3%	0.0%
1/1/2015	96	202,385	2,735	138,088	100%	68.2%	0.0%
1/1/2016	96	201,512	3,081	30,776	100%	64.8%	0.0%
1/1/2017	79	202,702	3,171	124,435	100%	61.3%	0.0%
1/1/2018	47	226,793	2,487	117,019	100%	51.6%	0.0%
1/1/2019	19	225,859	1,223	104,674	100%	46.3%	0.0%
1/1/2020	19	225,042	1,221	93,559	100%	41.6%	0.0%
1/1/2021	19	475,736	3,020	84,969	100%	17.9%	0.0%
1/1/2022	0	169,135	0	71,007	100%	42.0%	0.0%

*Amounts in Thousands

Paid Firemen's Pension Plan B							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2013	\$12,909	\$32,551	\$50,005	\$91,248	100%	100%	114.5%
1/1/2014	14,398	36,923	53,304	103,693	100%	100%	98.3%
1/1/2015	16,382	41,354	57,416	115,323	100%	100%	100.3%
1/1/2016	17,298	50,930	57,713	124,496	100%	100%	97.5%
1/1/2017	18,890	57,946	58,399	134,451	100%	100%	98.7%
1/1/2018	20,129	70,763	60,090	144,816	100%	100%	89.7%
1/1/2019	21,031	77,830	63,856	151,225	100%	100%	82.0%
1/1/2020	22,429	84,280	64,783	160,882	100%	100%	83.6%
1/1/2021	24,211	90,097	69,156	175,946	100%	100%	89.1%
1/1/2022	25,626	101,211	75,515	196,393	100%	100%	92.1%

* Amounts in Thousands

Wyoming Judicial Pension Plan							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2013	\$4,846	\$5,300	\$6,780	\$17,549	100%	100%	100.0%
1/1/2014	5,203	6,682	7,780	20,261	100%	100%	100.0%
1/1/2015	5,800	7,659	7,784	22,728	100%	100%	100.0%
1/1/2016	6,235	9,046	7,724	24,634	100%	100%	100.0%
1/1/2017	7,019	8,860	8,581	26,773	100%	100%	100.0%
1/1/2018	6,833	12,686	9,567	29,063	100%	100%	99.7%
1/1/2019	6,491	15,689	8,888	30,341	100%	100%	91.8%
1/1/2020	6,722	18,452	9,096	32,585	100%	100%	81.5%
1/1/2021	6,768	19,523	10,061	35,464	100%	100%	91.2%
1/1/2022	7,380	20,108	12,604	39,363	100%	100%	94.2%

* Amounts in Thousands

Wyoming Law Enforcement Pension Plan							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2013	\$116,003	\$229,727	\$127,815	\$437,235	100%	100%	71.6%
1/1/2014	121,916	260,467	144,399	486,818	100%	100%	72.3%
1/1/2015	128,199	286,400	149,643	528,543	100%	100%	76.1%
1/1/2016	133,912	309,474	153,470	557,126	100%	100%	74.1%
1/1/2017	137,265	335,397	155,423	590,466	100%	100%	75.8%
1/1/2018	140,029	389,302	179,627	625,562	100%	100%	53.6%
1/1/2019	140,664	421,539	187,322	641,342	100%	100%	42.2%
1/1/2020	142,464	453,526	198,964	671,747	100%	100%	38.1%
1/1/2021	146,445	485,588	208,780	722,309	100%	100%	43.2%
1/1/2022	147,981	531,045	253,528	789,572	100%	100%	43.6%

* Amounts in Thousands

Air Guard Firefighter Pension Plan							
Valuation Date	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members* (Employer Financed Portion)	Valuation Assets*	Portion of Accrued Liabilities Covered by Assets		
					-1	-2	-3
1/1/2013	\$3,102	\$554	\$1,196	\$4,450	100%	100%	66.3%
1/1/2014	3,290	1,003	1,512	5,175	100%	100%	58.3%
1/1/2015	3,551	1,876	1,185	5,929	100%	100%	42.4%
1/1/2016	3,716	2,494	1,137	6,617	100%	100%	36.7%
1/1/2017	2,973	4,093	732	6,801	100%	94.0%	0.0%
1/1/2018	3,141	4,840	735	7,411	100%	88.0%	0.0%
1/1/2019	3,388	4,980	646	7,711	100%	87.0%	0.0%
1/1/2020	3,254	5,922	451	8,193	100%	83.0%	0.0%
1/1/2021	2,719	7,258	324	8,886	100%	85.0%	0.0%
1/1/2022	2,074	9,248	301	9,545	100%	81.0%	0.0%

* Amounts in Thousands

Analysis of Financial Experience

Summary of Unfunded Actuarial Accrued Liabilities

Unfunded actuarial accrued liabilities (UAAL) are the difference between actuarially calculated liabilities for service already rendered and the assets of the retirement fund. It is natural for unfunded liabilities to exist for the System's nine retirement plans.

The statutes governing the Wyoming Retirement System's plans requires that these liabilities be financed systematically over future years.

Benefits to retirees are "fully funded," that is, assets reserved for benefits currently being paid equal liabilities for those benefits. Liabilities for members are based on service rendered toward their retirement benefits which will be payable in the future. Unfunded actuarial accrued liabilities exist because liabilities for such service by members exceed assets currently on hand for such future benefits.

In an inflationary economy, the value of dollars is decreasing. Looking at just the dollar amounts of unfunded accrued liabilities can be misleading. Unfunded accrued liabilities dollars divided by active employee payroll dollars provide a meaningful index, which helps understanding. The smaller the ratio of unfunded liabilities compared to active member payroll the stronger the system.

Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

Gains & Losses in Accrued Liabilities during the Year Ended 12/31/2021				
Resulting from Differences between Assumed Experience & Actual Experience				
Type of Activity	Public Employees Pension Plan	State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan	Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan	Paid Firemen's Pension Plan A
Age & Service Retirements	(\$26,945,016)	(\$669,822)	\$191,431	\$79,907
If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, there is a loss.				
Disability Retirements	(41,183)	510,715	-	-
If disability claims are less than assumed, there is a gain. If there are more disability claims, there is a loss.				
Death-In-Service Benefits	(227,555)	70,910	(11,916)	-
If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.				
Withdrawal From Employment	(3,988,393)	(41,378)	(206,200)	-
If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, there is a loss.				
Rehires and New Hires	(636,881)	-	(169,806)	-
New employees entering the plan will create a loss. If less new employees enter the plan than assumed, there is a gain.				
Pay Increases	42,706,874	526,371	-	-
If there are smaller pay increases than assumed, there is a gain. If greater increases, there is a loss.				
Contribution Income*	(44,189,991)	(242,281)	1,410,965	(41,816,392)
If more contributions are received than expected, there is a gain. If less, there is a loss.				
Investment Income	343,720,578	6,808,761	3,609,915	1,537,851
If there is greater investment income than assumed, there is a gain. If less, there is a loss.				
Death After Retirement	8,775,816	364,202	176,258	3,320,318
If retirees live longer than assumed, there is a loss. If not as long, there is a gain.				
Service Purchases	(4,944,176)	(372,506)	(16,561)	-
This loss is offset by the employee contribution to the plan for the service purchase. The net effect of service purchases is zero.				
Other	1,781,520	(237,333)	579,228	(112,924)
Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.				
Gain (Loss) During Year From Financial Experience	\$316,011,593	\$6,717,639	\$5,563,314	(\$36,991,240)

*Contribution Income includes the additional employee contributions for service purchases. These additional contributions offset the liability loss due to service purchases.

Analysis of Financial Experience

Gains & Losses in Accrued Liabilities during the Year Ended 12/31/2021

Resulting from Differences between Assumed Experience & Actual Experience

Type of Activity	Paid Firemen's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan
Age & Service Retirements	(\$313,506)	\$32,145	(\$1,975,983)	(\$244,352)
If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, there is a loss.				
Disability Retirements	147,528	1,188	(405,769)	(255,210)
If disability claims are less than assumed, there is a gain. If there are more disability claims, there is a loss.				
Death-In-Service Benefits	106,107	14,642	2,025,975	1,972
If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.				
Withdrawal From Employment	(554,858)	(26,684)	(3,199,268)	(82,441)
If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, there is a loss.				
Rehires and New Hires	(4,907)	(6,305)	(326,849)	(21,747)
New employees entering the plan will create a loss.				
Pay Increases	1,936,760	738,328	11,887,824	(64,498)
If there are smaller pay increases than assumed, there is a gain. If greater increases, there is a loss.				
Contribution Income*	(25,457)	(44,338)	(3,334,286)	132,109
If more contributions are received than expected, there is a gain. If less, there is a loss.				
Investment Income	7,496,311	1,483,023	31,466,865	362,531
If there is greater investment income than assumed, there is a gain. If less, there is a loss.				
Death After Retirement	(197,291)	(239,420)	(557,685)	(10,453)
If retirees live longer than assumed, there is a loss. If not as long, there is a gain.				
Service Purchases	-	-	(1,086,036)	-
This loss is offset by the employee contribution to the plan for the service purchase. The net effect of service purchases is zero.				
Other	289,014	41,662	(1,758,411)	(74,749)
Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.				
Gain (Loss) During Year From Financial Experience	\$8,879,701	\$1,994,241	\$32,736,377	(\$256,838)

*Contribution Income includes the additional employee contributions for service purchases. These additional contributions offset the liability loss due to service purchases.

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL)(b-a)	Funded Ratio as a Percentage (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
Public Employees Pension Plan:						
January 1, 2013	\$5,749,967,972	\$7,319,204,726	\$1,569,236,754	78.6%	\$1,782,069,208	88.1%
January 1, 2014	6,244,501,550	8,045,046,972	1,800,545,422	77.6%	1,782,062,471	101.0%
January 1, 2015	6,609,612,342	8,370,666,482	1,761,054,140	79.0%	1,818,197,022	96.9%
January 1, 2016	6,814,919,591	8,713,353,524	1,898,433,933	78.2%	1,858,678,687	102.1%
January 1, 2017	7,063,051,856	9,039,303,831	1,976,251,975	78.1%	1,851,873,634	106.7%
January 1, 2018	7,314,683,343	9,588,652,976	2,273,969,633	76.3%	1,784,888,475	127.4%
January 1, 2019	7,318,379,669	9,869,615,224	2,551,235,555	74.2%	1,781,668,069	143.2%
January 1, 2020	7,459,695,656	10,196,045,970	2,736,350,314	73.2%	1,824,979,015	149.9%
January 1, 2021	7,827,625,526	10,469,787,925	2,642,162,399	74.8%	1,865,426,156	141.6%
January 1, 2022	8,389,355,255	10,889,858,029	2,500,502,774	77.0%	1,850,670,904	135.1%
State Patrol, Game & Fish Warden and Criminal Investigator Pension Plan:						
January 1, 2013	\$106,067,552	\$137,580,636	\$31,513,084	77.1%	\$24,424,919	129.0%
January 1, 2014	116,151,164	149,989,392	33,838,229	77.4%	22,744,938	148.8%
January 1, 2015	123,680,718	156,201,302	32,520,584	79.2%	23,140,300	140.5%
January 1, 2016	128,597,582	164,522,386	35,924,804	78.2%	24,641,033	145.8%
January 1, 2017	134,609,253	169,251,572	34,642,319	79.5%	24,646,258	140.6%
January 1, 2018	140,712,382	180,615,436	39,903,054	77.9%	23,639,756	168.8%
January 1, 2019	142,734,809	186,532,553	43,797,744	76.5%	23,696,821	184.8%
January 1, 2020	147,895,921	194,964,001	47,068,080	75.9%	24,676,346	190.7%
January 1, 2021	156,996,868	198,661,870	41,665,002	79.0%	24,806,442	168.0%
January 1, 2022	170,067,180	209,104,885	39,037,705	81.3%	24,082,634	162.1%
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan:						
January 1, 2016	\$76,097,619	\$102,278,423	\$26,180,804	74.4%	n/a	n/a
January 1, 2017	78,176,796	102,244,853	24,068,057	76.5%	n/a	n/a
January 1, 2018	81,168,922	109,091,945	27,923,023	74.4%	n/a	n/a
January 1, 2019	81,800,847	112,287,528	30,486,681	72.8%	n/a	n/a
January 1, 2020	83,527,771	115,260,425	31,732,654	72.5%	n/a	n/a
January 1, 2021	90,065,676	117,987,998	27,922,322	76.3%	n/a	n/a
January 1, 2022	97,999,632	120,546,184	22,546,552	81.3%	n/a	n/a

Note: The Volunteer Firefighter and Emergency Medical Technician Pension Plan was consolidated into one plan on July 1, 2015. Search and Rescue Volunteers were added to the plan on July 1, 2019.

n/a - not applicable

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL)(b-a)	Funded Ratio as a Percentage (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
Paid Firemen's Pension Plan A:						
January 1, 2013	\$139,181,449	\$195,199,195	\$56,017,746	71.3%	\$486,270	11,519.9%
January 1, 2014	140,917,231	206,255,267	65,338,036	68.3%	198,404	32,931.8%
January 1, 2015	138,087,746	205,216,099	67,128,353	67.3%	179,486	37,400.3%
January 1, 2016	130,776,292	204,689,787	73,912,495	63.9%	195,221	37,860.9%
January 1, 2017	124,435,245	205,952,912	81,517,667	60.4%	195,221	41,756.6%
January 1, 2018	117,019,469	229,327,120	112,307,651	51.0%	134,155	83,714.8%
January 1, 2019	104,673,993	227,100,614	122,426,621	46.1%	65,621	186,566.2%
January 1, 2020	93,559,404	226,282,373	132,722,969	41.4%	65,621	202,256.9%
January 1, 2021	84,969,035	478,774,655	393,805,620	17.7%	65,621	600,121.3%
January 1, 2022	71,006,860	169,135,151	98,128,291	42.0%	0	n/a
Paid Firemen's Pension Plan B:						
January 1, 2013	\$91,248,379	\$85,464,453	\$(5,783,926)	106.8%	\$24,210,827	-23.9%
January 1, 2014	103,693,169	104,624,698	931,529	99.1%	25,596,043	3.6%
January 1, 2015	115,323,104	115,152,708	(170,396)	100.1%	27,090,867	-0.6%
January 1, 2016	124,496,124	125,941,369	1,445,245	98.9%	27,512,076	5.3%
January 1, 2017	134,450,595	135,234,856	784,261	99.4%	29,408,598	2.7%
January 1, 2018	144,816,308	150,981,756	6,165,448	95.9%	27,481,361	22.4%
January 1, 2019	151,224,958	162,716,621	11,491,663	92.9%	28,729,092	40.0%
January 1, 2020	160,882,389	171,491,696	10,609,307	93.8%	29,271,925	36.2%
January 1, 2021	175,946,438	183,464,303	7,517,865	95.9%	30,722,779	24.5%
January 1, 2022	196,392,646	202,351,470	5,958,824	97.1%	32,032,911	18.6%
Judicial Pension Plan:						
January 1, 2013	\$17,549,360	\$16,925,219	\$(624,141)	103.7%	\$5,410,651	-11.5%
January 1, 2014	20,260,811	19,664,408	(596,403)	103.0%	6,213,775	-9.6%
January 1, 2015	22,728,268	21,243,000	(1,485,268)	107.0%	6,601,641	-22.5%
January 1, 2016	24,633,859	23,004,559	(1,629,300)	107.1%	6,624,052	-24.6%
January 1, 2017	26,773,208	24,459,333	(2,313,875)	109.5%	6,625,476	-34.9%
January 1, 2018	29,062,780	29,087,091	24,311	99.9%	6,820,351	0.4%
January 1, 2019	30,341,215	31,067,933	726,718	97.7%	6,866,395	10.6%
January 1, 2020	32,585,154	34,270,621	1,685,467	95.1%	7,706,958	21.9%
January 1, 2021	35,463,586	36,351,609	888,023	97.6%	8,201,747	10.8%
January 1, 2022	39,362,946	40,092,215	729,269	98.2%	8,501,713	8.6%

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL)(b-a)	Funded Ratio as a Percentage (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
Law Enforcement Pension Plan:						
January 1, 2013	\$437,235,498	\$473,544,657	\$36,309,158	92.3%	\$157,764,488	23.0%
January 1, 2014	486,817,860	526,782,470	39,964,610	92.4%	154,071,943	25.9%
January 1, 2015	528,542,864	564,241,353	35,698,489	93.7%	156,791,728	22.8%
January 1, 2016	557,125,768	596,856,177	39,730,409	93.3%	161,357,314	24.6%
January 1, 2017	590,466,391	628,084,812	37,618,421	94.0%	160,072,828	23.5%
January 1, 2018	625,562,038	708,957,832	83,395,794	88.2%	155,696,162	53.6%
January 1, 2019	641,342,345	749,524,885	108,182,540	85.6%	159,747,760	67.7%
January 1, 2020	671,746,944	794,954,725	123,207,781	84.5%	164,757,930	74.8%
January 1, 2021	722,308,507	840,812,836	118,504,329	85.9%	170,284,524	69.6%
January 1, 2022	789,572,141	932,553,503	142,981,362	84.7%	165,440,506	86.4%
Air Guard Firefighter Pension Plan:						
January 1, 2013	\$4,449,572	\$4,852,245	\$402,673	91.7%	\$1,866,393	21.6%
January 1, 2014	5,174,861	5,804,761	629,900	89.1%	1,805,329	34.9%
January 1, 2015	5,929,006	6,611,411	682,405	89.7%	2,214,578	30.8%
January 1, 2016	6,616,954	7,336,724	719,770	90.2%	2,243,456	32.1%
January 1, 2017	6,800,719	7,798,108	997,389	87.2%	2,059,595	48.4%
January 1, 2018	7,411,093	8,715,990	1,304,897	85.0%	2,208,407	59.1%
January 1, 2019	7,710,523	9,012,642	1,302,119	85.6%	2,399,940	54.3%
January 1, 2020	8,193,354	9,627,272	1,433,918	85.1%	2,374,043	60.4%
January 1, 2021	8,885,761	10,300,578	1,414,817	86.3%	2,211,746	64.0%
January 1, 2022	9,544,656	11,623,613	2,078,957	82.1%	2,199,066	94.5%



Annual Comprehensive Financial Report 2021

STATISTICAL SECTION



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The Statistical Section contains schedules, as described below, which are derived from information in the annual actuarial valuation. These Schedules provide detailed information on both financial and census information on each plan. The Wyoming Retirement System acts as Administrator to eight defined benefit pension plans. The major features of each plan are discussed in the Management Discussion and Analysis Section and Note 2 to the Basic Financial Statements.

Changes in Fiduciary Net Position:

The Changes in Net Position 2012 – 2021 statements are provided to present comparative information on 10 years of historical financial information on each plan for additions and deductions. Significant fluctuations and/or trends for the current year have been discussed in the Management Discussion and Analysis.

Schedule of Average Monthly Benefit Payments:

This schedule outlines the number of retirees and their average benefit by years of service for the last 10 years.

Pensions in Force:

The Pensions in Force schedule for the Public Employees Pension Plan shows the benefit by option selected (male & female), as well as census data for 2021 of the total number of pensions awarded by amount range and option. A synopsis of the pension options available to the retirees is presented at the end of this section.

The Pensions in Force schedule for the other seven plans stratify the number of retirees receiving a pension by their age and the monthly amount of benefit received. Disability census information is also presented as a part of this schedule.

Member and Benefit Recipients Statistics:

This schedule is intended to show by plan both the active members in the plans as of December 31, 2021, and a reconciliation of the number of retirees for the year ended December 31, 2021. It also shows the average monthly benefit of the retirees for the year then ended.

Active Membership:

Information presented in the two Active Membership schedules is for the Public Employee Pension Plan, as this plan represents in excess of 80% of all members in the plans administered by the Wyoming Retirement System. The information provided shows the number of active members stratified by both employer type and age bracket.

Affiliated Employers:

This gives the reader more detailed census information about employers by pension plan as well as the names of the participating employers by pension plan.

Changes in Fiduciary Net Position

Public Employee Pension Plan										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Employee Contributions	\$166,332	\$161,724	\$153,582	\$146,255	\$145,008	\$147,650	\$147,360	\$137,145	\$122,611	\$119,052
Employer Contributions	168,461	163,848	155,457	145,912	147,037	149,619	142,666	127,930	122,137	121,027
Investment Income (Loss)	1,414,900	805,892	1,251,519	(252,571)	923,878	454,713	(67,156)	314,706	780,556	723,468
Other Income	5,751	5,500	5,956	6,596	6,454	6,642	8,126	5,614	6,141	3,621
Total	1,755,444	1,136,964	1,566,514	46,192	1,222,377	758,624	230,996	585,395	1,031,445	967,168
Deductions by Type										
Benefits										
Member	587,368	564,315	539,414	510,719	481,746	450,686	419,726	388,318	359,050	331,071
Beneficiary	45,409	42,020	39,765	37,194	35,091	32,796	30,864	29,957	28,387	26,296
Refunds	19,019	19,413	21,308	18,114	18,655	18,128	19,365	17,822	17,131	17,263
Other Expenses	298	295	310	288	313	312	313	75	-	-
Administrative Expenses	7,725	7,238	6,527	7,034	6,551	5,993	5,098	5,183	6,514	6,463
Total	659,819	633,281	607,324	573,349	542,356	507,915	475,366	441,355	411,082	381,093
Change in Plan Net Position	1,095,625	503,683	959,190	(527,157)	680,021	250,709	(244,370)	144,040	620,363	586,075

Note: Amounts in Thousands

Wyoming State Highway Patrol, Game & Fish, and Criminal Investigator Pension Plan										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Employee Contributions	\$3,486	\$3,547	\$3,527	\$3,416	\$3,429	\$3,441	\$3,331	\$3,151	\$2,976	\$2,726
Employer Contributions	3,563	3,665	3,639	3,492	3,503	3,517	3,290	3,006	2,998	2,799
Investment Income (Loss)	28,405	16,115	24,467	(4,908)	17,623	8,622	(1,199)	5,836	14,444	13,286
Other Income	400	385	669	418	107	294	259	231	355	177
Total	35,854	23,712	32,302	2,418	24,662	15,874	5,681	12,224	20,773	18,988
Deductions by Type										
Benefits										
Member	10,612	10,283	9,923	9,311	8,856	8,517	8,025	7,489	7,129	6,826
Beneficiary	1,132	987	921	950	939	880	901	876	765	753
Refunds	109	368	289	351	509	323	121	368	336	287
Other Expenses	6	6	6	6	6	6	6	1	-	-
Administrative Expenses	161	150	138	139	129	115	96	97	107	85
Total	12,020	11,794	11,277	10,757	10,439	9,841	9,149	8,831	8,337	7,951
Change in Plan Net Position	23,834	11,918	21,025	(8,339)	14,223	6,033	(3,468)	3,393	12,436	11,037

Note: Amounts in Thousands

Changes in Fiduciary Net Position

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan

	2021	2020	2019	2018	2017	2016	2015
Additions (Deletions) by Source							
Employee Contributions	\$557	\$502	\$432	\$422	\$418	\$421	\$398
Employer Contributions	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Investment Income (Loss)	15,709	8,849	13,701	(2,783)	10,036	4,940	(675)
Other Income	4,687	5,528	3,124	2,973	3,298	3,237	2,258
Total	20,953	14,879	17,257	612	13,752	8,598	1,981
Deductions by Type							
Benefits							
Member	6,247	6,033	5,775	5,439	5,138	4,915	4,288
Beneficiary	781	725	692	663	643	592	545
Refunds	32	53	40	44	33	35	35
Other Expenses	3	3	3	3	3	3	3
Administrative Expenses	95	87	89	91	89	81	73
Total	7,158	6,901	6,599	6,240	5,906	5,626	4,944
Change in Plan Net Position	13,795	7,978	10,658	(5,628)	7,846	2,972	(2,963)

Note: Amounts in Thousands

The Volunteer Firefighter & Emergency Medical Technician Pension Plans were consolidated July 1, 2015, replacing the previous Volunteer Firemen's Pension Plan and the Volunteer Emergency Medical Technician Pension Plan.

On July 1, 2019, Search and Rescue Volunteers were added to the plan.

Paid Firemen's Pension Plan A

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Employee Contributions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Employer Contributions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Investment Income (Loss)	\$(371)	\$8,559	\$16,923	\$(3,580)	\$15,352	\$8,160	\$(1,107)	\$6,980	\$18,324	\$18,404
Other Income	-	-	-	-	-	-	-	-	-	243
Total	(371)	8,559	16,923	(3,580)	15,352	8,160	(1,107)	6,980	18,324	18,647
Deductions by Type										
Benefits										
Member	11,850	12,515	12,442	12,333	11,996	11,851	11,874	11,981	11,972	12,043
Beneficiary	4,310	3,827	3,651	3,455	3,415	3,225	2,951	2,601	2,384	2,184
Refunds	-	-	-	-	-	-	-	-	-	-
Other Expenses	3	4	5	4	6	6	6	2	-	-
Administrative Expenses	105	89	87	99	109	110	103	113	130	102
Total	16,268	16,435	16,185	15,891	15,526	15,192	14,934	14,697	14,486	14,329
Change in Plan Net Position	(16,639)	(7,876)	738	(19,471)	(174)	(7,032)	(16,041)	(7,717)	3,838	4,318

Note: Amounts in Thousands

n/a: Paid Firemen's Plan A contributions were suspended April 1, 1997.

Changes in Fiduciary Net Position

Paid Firemen's Pension Plan B										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Employee Contributions	\$3,262	\$3,054	\$2,707	\$2,585	\$2,490	\$2,605	\$2,529	\$2,414	\$2,160	\$1,998
Employer Contributions	4,508	4,034	3,516	3,356	3,225	3,371	3,273	3,184	3,023	2,825
Investment Income (Loss)	31,993	18,023	26,111	(5,198)	17,838	8,477	(1,159)	5,248	12,576	11,110
Other Income	-	-	80	237	289	254	397	266	30	7
Total	39,763	25,111	32,414	980	23,842	14,707	5,040	11,112	17,789	15,940
Deductions by Type										
Benefits										
Member	6,464	5,944	5,499	5,129	4,710	4,084	3,452	2,817	2,633	2,321
Beneficiary	439	439	422	345	345	260	260	274	199	199
Refunds	71	85	35	64	120	72	75	63	84	109
Other Expenses	7	6	6	5	5	6	5	1	-	-
Administrative Expenses	177	159	139	141	131	112	91	87	97	67
Total	7,158	6,633	6,101	5,684	5,311	4,534	3,883	3,242	3,013	2,696
Change in Plan Net Position	32,605	18,478	26,313	(4,704)	18,531	10,173	1,157	7,870	14,776	13,244

Note: Amounts in Thousands

Judicial Pension Plan										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Employee Contributions	\$745	\$722	\$675	\$611	\$604	\$589	\$ 585	\$583	\$551	\$345
Employer Contributions	1,172	1,135	1,060	960	949	926	921	917	866	610
Investment Income (Loss)	6,389	3,612	5,224	(1,039)	3,549	1,679	(228)	1,027	2,432	2,137
Other Income	-	-	354	-	-	-	-	-	-	-
Total	8,306	5,469	7,313	532	5,102	3,194	1,278	2,527	3,849	3,092
Deductions by Type										
Benefits										
Member	1,803	1,737	1,597	1,332	1,078	892	843	687	608	544
Beneficiary	141	141	123	123	89	89	89	89	67	67
Refunds	-	-	-	-	-	-	-	-	-	98
Other Expenses	1	1	1	1	2	1	1	-	-	-
Administrative Expenses	36	32	28	28	25	22	18	17	17	14
Total	1,981	1,911	1,749	1,484	1,194	1,004	951	793	692	723
Change in Plan Net Position	6,325	3,558	5,564	(952)	3,908	2,190	327	1,734	3,157	2,369

Note: Amounts in Thousands

Changes in Fiduciary Net Position

Law Enforcement Pension Plan										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Employee Contributions	\$14,160	\$14,447	\$13,881	\$13,482	\$13,285	\$13,460	\$14,569	\$13,314	\$13,044	\$12,964
Employer Contributions	14,114	14,490	13,856	13,471	13,320	13,454	12,468	13,308	13,009	12,972
Investment Income (Loss)	131,615	74,478	110,793	(22,169)	77,947	37,783	(5,372)	24,588	59,946	53,843
Other Income	1,540	1,818	1,206	674	701	1,258	1,068	803	550	392
Total	161,429	105,233	139,736	5,458	105,253	65,955	22,733	52,013	86,549	80,171
Deductions by Type										
Benefits										
Member	37,297	34,905	32,383	29,828	27,550	26,002	23,912	21,650	20,036	18,418
Beneficiary	2,892	2,700	2,468	2,186	2,072	1,872	1,547	1,560	1,256	1,220
Refunds	3,118	2,782	2,426	3,971	4,041	3,491	4,660	4,110	4,426	3,576
Other Expenses	27	27	27	24	52	26	25	6	-	-
Administrative Expenses	754	695	597	639	580	518	418	408	470	417
Total	44,088	41,109	37,901	36,648	34,295	31,909	30,562	27,734	26,188	23,631
Change in Plan Net Position	117,341	64,124	101,835	(31,190)	70,958	34,046	(7,829)	24,279	60,361	56,540

Note: Amounts in Thousands

Air Guard Firefighter Pension Plan										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Employee Contributions	\$365	\$330	\$370	\$373	\$367	\$320	\$370	\$336	\$310	\$256
Employer Contributions	156	141	158	160	156	137	158	142	133	109
Investment Income (Loss)	1,567	898	1,300	(254)	902	431	(55)	258	595	485
Other Income	-	-	-	72	-	57	35	1	-	121
Total	2,088	1,369	1,828	351	1,425	945	508	737	1,038	971
Deductions by Type										
Benefits										
Member	644	501	443	385	351	291	168	120	74	43
Beneficiary	-	-	-	-	-	-	-	-	-	-
Refunds	178	-	70	214	40	412	21	7	14	-
Other Expenses	1	-	-	-	1	-	-	-	-	-
Administrative Expenses	13	8	7	7	6	6	5	4	5	3
Total	836	509	520	606	398	709	194	131	93	46
Change in Plan Net Position	1,252	860	1,308	(255)	1,027	236	314	606	945	925

Note: Amounts in Thousands

Changes in Fiduciary Net Position

Deferred Compensation Plan 457 (b) Plan										
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Additions (Deletions) by Source										
Contributions	\$54,168	\$52,961	\$53,991	\$45,945	\$45,366	\$42,431	\$41,043	\$39,589	\$41,338	\$37,539
Investment Income (Loss)	126,305	105,363	127,756	(27,870)	78,394	36,980	(3,504)	24,077	59,382	35,654
Other Income	-	-	-	-	(4)	99	177	146	148	210
Total	180,473	158,324	181,747	18,075	123,756	79,510	37,716	63,812	100,868	73,403
Deductions by Type										
Benefits	48,000	38,417	35,631	39,783	34,399	30,786	33,788	28,231	27,992	22,972
Administrative Expenses	745	673	849	815	871	802	682	856	848	854
Total	48,745	39,090	36,480	40,598	35,270	31,588	34,470	29,087	28,840	23,826
Change in Plan Net Position	131,728	119,234	145,267	(22,523)	88,486	47,922	3,246	34,725	72,028	49,577

Note: Amounts in Thousands

Schedule of Monthly Benefit Payments

Public Employees Pension Plan								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
2021								
Number	1,078	4,325	4,292	3,897	3,839	4,285	3,729	1,877
Average Benefit	\$270	\$450	\$819	\$1,256	\$1,806	\$2,589	\$3,391	\$4,490
Ave Final Ave Salary	\$57,675							
2020								
Number	1,047	4,277	4,207	3,841	3,723	4,180	3,621	1,762
Average Benefit	\$238	\$445	\$802	\$1,234	\$1,775	\$2,545	\$3,354	\$4,455
Ave Final Ave Salary	\$53,692							
2019								
Number	1,156	4,206	4,095	3,728	3,632	4,081	3,534	1,658
Average Benefit	\$446	\$439	\$788	\$1,211	\$1,754	\$2,509	\$3,328	\$4,400
Ave Final Ave Salary	\$52,289							
2018								
Number	1,053	4,066	3,939	3,666	3,540	3,975	3,462	1,542
Average Benefit	\$230	\$427	\$766	\$1,183	\$1,738	\$2,477	\$3,299	\$4,340
Ave Final Ave Salary	\$51,529							
2017								
Number	1,046	3,942	3,776	3,571	3,410	3,838	3,365	1,408
Average Benefit	\$224	\$420	\$751	\$1,155	\$1,713	\$2,452	\$3,263	\$4,263
Ave Final Ave Salary	\$52,083							
2016								
Number	1,037	3,794	3,621	3,459	3,305	3,684	3,232	1,264
Average Benefit	\$217	\$411	\$735	\$1,125	\$1,682	\$2,419	\$3,228	\$4,178
Ave Final Ave Salary	\$51,594							
2015								
Number	1,023	3,667	3,483	3,366	3,199	3,519	3,054	1,121
Average Benefit	\$225	\$401	\$717	\$1,105	\$1,643	\$2,385	\$3,178	\$4,072
Ave Final Ave Salary	\$52,242							
2014								
Number	983	3,519	3,362	3,259	3,090	3,384	2,904	1,016
Average Benefit	\$215	\$396	\$704	\$1,085	\$1,603	\$2,347	\$3,120	\$3,970
Ave Final Ave Salary	\$51,374							
2013								
Number	994	3,385	3,236	3,184	2,974	3,208	2,721	882
Average Benefit	\$271	\$382	\$680	\$1,063	\$1,571	\$2,301	\$3,066	\$3,870
Ave Final Ave Salary	\$51,586							
2012								
Number	964	3,173	3,119	3,078	2,808	3,074	2,548	778
Average Benefit	\$191	\$373	\$660	\$1,038	\$1,521	\$2,266	\$3,010	\$3,752
Ave Final Ave Salary	\$51,085							

Schedule of Monthly Benefit Payments

State Highway Patrol, Game & Fish Warden and Criminal Investigator Pension Plan								
Years of Service								
2021	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	36	36	40	61	56	45	14
Average Benefit	\$1,749	\$1,625	\$2,405	\$2,442	\$3,043	\$3,572	\$4,405	\$4,262
Ave Final Ave Salary	\$86,808							
2020	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	35	34	41	55	59	45	14
Average Benefit	\$1,749	\$1,655	\$2,427	\$2,365	\$2,850	\$3,474	\$4,238	\$4,190
Ave Final Ave Salary	\$89,620							
2019	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	36	31	40	55	59	47	13
Average Benefit	\$1,749	\$1,648	\$2,316	\$2,346	\$2,850	\$3,400	\$4,185	\$4,139
Ave Final Ave Salary	\$86,458							
2018	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	36	26	36	55	60	43	13
Average Benefit	\$1,749	\$1,648	\$2,307	\$2,284	\$2,694	\$3,383	\$4,056	\$4,139
Ave Final Ave Salary	\$82,786							
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	36	26	33	52	59	42	13
Average Benefit	\$1,749	\$1,563	\$2,252	\$2,219	\$2,621	\$3,337	\$4,051	\$4,139
Ave Final Ave Salary	\$82,463							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	33	26	32	53	56	43	13
Average Benefit	\$1,749	\$1,484	\$2,252	\$2,066	\$2,511	\$3,174	\$3,996	\$4,116
Ave Final Ave Salary	\$85,169							
2015	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	33	24	29	53	55	43	12
Average Benefit	\$1,749	\$1,476	\$2,344	\$1,919	\$2,440	\$3,149	\$3,851	\$3,997
Ave Final Ave Salary	\$83,862							
2014	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	28	20	28	56	55	40	12
Average Benefit	\$1,923	\$1,552	\$2,239	\$1,924	\$2,370	\$2,985	\$3,648	\$3,997
Ave Final Ave Salary	\$75,038							
2013	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	5	27	15	27	53	56	43	10
Average Benefit	\$1,377	\$1,538	\$2,155	\$1,844	\$2,310	\$2,860	\$3,602	\$4,041
Ave Final Ave Salary	\$74,889							
2012	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	5	24	13	27	53	56	42	10
Average Benefit	\$1,377	\$1,381	\$1,962	\$1,844	\$2,247	\$2,767	\$3,533	\$4,041
Ave Final Ave Salary	\$81,610							

Schedule of Monthly Benefit Payments

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan								
Years of Service								
2021	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	118	218	210	284	274	184	67
Average Benefit	\$204	\$132	\$213	\$304	\$398	\$489	\$570	\$669
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2020	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	5	118	222	209	280	262	178	62
Average Benefit	\$193	\$135	\$214	\$303	\$398	\$488	\$569	\$669
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2019	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	7	115	223	208	272	255	160	48
Average Benefit	\$251	\$138	\$215	\$303	\$398	\$488	\$568	\$664
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2018	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	5	109	217	199	270	246	147	45
Average Benefit	\$193	\$140	\$217	\$305	\$398	\$487	\$567	\$654
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	5	97	212	201	263	231	137	37
Average Benefit	\$217	\$142	\$217	\$305	\$396	\$483	\$563	\$612
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	91	211	195	258	216	129	34
Average Benefit	\$219	\$144	\$218	\$305	\$395	\$482	\$562	\$608
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2015	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	6	83	214	199	255	200	115	18
Average Benefit	\$219	\$148	\$219	\$305	\$396	\$483	\$565	\$653
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2014	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	61	71	199	190	225	168	104	22
Average Benefit	\$288	\$158	\$205	\$257	\$315	\$388	\$462	\$474
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2013	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	69	67	192	195	216	152	87	12
Average Benefit	\$275	\$161	\$208	\$258	\$316	\$391	\$466	\$547
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							
2012	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	69	67	190	186	199	135	76	9
Average Benefit	\$276	\$164	\$209	\$260	\$318	\$394	\$467	\$547
Ave Final Ave Salary	Benefits In This Plan Not Based on Salary							

Note Data prior to 2015 is estimated from the consolidation of the predecessor Volunteer Firemen's Pension Plan and Volunteer Emergency Medical Technician Pension Plan.

Schedule of Monthly Benefit Payments

Paid Firemen's Pension Plan A								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
2021								
Number	-	1	12	8	97	43	17	5
Average Benefit	\$-	\$2,191	\$2,851	\$4,609	\$5,139	\$6,216	\$6,647	\$6,020
Ave Final Ave Salary	n/a							
2020								
Number	-	1	14	9	107	45	17	4
Average Benefit	\$-	\$2,128	\$2,866	\$4,557	\$4,985	\$6,045	\$6,453	\$5,994
Ave Final Ave Salary	n/a							
2019								
Number	-	1	14	9	111	48	20	4
Average Benefit	\$-	\$2,066	\$2,782	\$4,424	\$4,856	\$5,823	\$6,063	\$5,820
Ave Final Ave Salary	n/a							
2018								
Number	-	1	14	9	112	49	21	5
Average Benefit	\$-	\$2,005	\$2,701	\$4,295	\$4,715	\$5,655	\$5,847	\$6,157
Ave Final Ave Salary	n/a							
2017								
Number	-	1	14	9	116	49	20	5
Average Benefit	\$-	\$1,947	\$2,622	\$4,170	\$4,583	\$5,479	\$5,707	\$5,977
Ave Final Ave Salary	n/a							
2016								
Number	-	1	14	9	118	50	21	4
Average Benefit	\$-	\$1,890	\$2,546	\$4,048	\$4,452	\$5,304	\$5,610	\$5,943
Ave Final Ave Salary	n/a							
2015								
Number	-	1	14	9	120	51	21	4
Average Benefit	\$-	\$1,835	\$2,472	\$3,931	\$4,328	\$5,170	\$5,453	\$5,770
Ave Final Ave Salary	\$83,862							
2014								
Number	13	1	16	11	121	49	18	3
Average Benefit	\$4,389	\$1,782	\$2,422	\$3,777	\$4,196	\$5,077	\$5,343	\$5,629
Ave Final Ave Salary	\$75,038							
2013								
Number	13	1	18	11	126	50	18	3
Average Benefit	\$4,261	\$1,730	\$2,244	\$3,667	\$4,083	\$4,914	\$5,188	\$5,465
Ave Final Ave Salary	\$74,889							
2012								
Number	9	1	18	11	134	51	19	3
Average Benefit	\$3,827	\$1,680	\$2,178	\$3,560	\$3,960	\$4,752	\$5,051	\$5,306
Ave Final Ave Salary	\$81,610							

Schedule of Monthly Benefit Payments

Paid Firemen's Pension Plan B								
	Years of Service							
2021	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	5	11	17	19	36	60	8	0
Average Benefit	\$2,230	\$1,523	\$1,792	\$2,586	\$3,902	\$4,603	\$4,608	\$-
Ave Final Ave Salary	\$86,956							
2020	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	9	17	18	31	57	8	0
Average Benefit	\$1,667	\$1,620	\$1,779	\$2,518	\$3,807	\$4,588	\$4,608	\$-
Ave Final Ave Salary	\$90,302							
2019	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	9	17	16	28	54	8	-
Average Benefit	\$1,667	\$1,620	\$1,779	\$2,430	\$3,763	\$4,529	\$4,608	\$-
Ave Final Ave Salary	\$73,810							
2018	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	8	12	15	25	52	8	-
Average Benefit	\$1,667	\$1,721	\$1,809	\$2,433	\$3,691	\$4,509	\$4,608	\$-
Ave Final Ave Salary	\$84,821							
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	7	11	14	22	49	8	-
Average Benefit	\$1,667	\$1,752	\$1,787	\$2,384	\$3,615	\$4,476	\$4,608	\$-
Ave Final Ave Salary	\$87,557							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	5	10	14	22	43	7	-
Average Benefit	\$1,667	\$1,762	\$1,670	\$2,384	\$3,615	\$4,417	\$4,549	\$-
Ave Final Ave Salary	\$83,403							
2015	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	5	8	12	15	39	7	-
Average Benefit	\$1,667	\$1,762	\$1,662	\$2,347	\$3,176	\$4,357	\$4,549	\$-
Ave Final Ave Salary	\$91,091							
2014	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	5	8	11	12	35	4	-
Average Benefit	\$1,667	\$1,762	\$1,662	\$2,231	\$2,754	\$4,268	\$4,503	\$-
Ave Final Ave Salary	\$83,778							
2013	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	4	7	11	12	31	4	-
Average Benefit	\$1,667	\$1,586	\$1,761	\$2,015	\$2,754	\$4,112	\$4,458	\$-
Ave Final Ave Salary	\$75,091							
2012	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	4	7	8	12	29	2	-
Average Benefit	\$1,667	\$1,586	\$1,761	\$1,895	\$2,883	\$4,101	\$4,494	\$-
Ave Final Ave Salary	\$66,398							

Schedule of Monthly Benefit Payments

Judicial Pension Plan								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
2021	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	5	12	8	1	-	-
Average Benefit	\$-	\$3,783	\$3,759	\$6,472	\$6,567	\$5,950	\$-	\$-
Ave Final Ave Salary	\$141,111							
2020	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	5	12	7	1	-	-
Average Benefit	\$-	\$3,783	\$3,759	\$6,472	\$6,484	\$5,950	\$-	\$-
Ave Final Ave Salary	\$143,164							
2019	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	6	12	6	1	-	-
Average Benefit	\$-	\$3,783	\$3,635	\$6,472	\$6,010	\$5,950	\$-	\$-
Ave Final Ave Salary	\$136,443							
2018	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	5	9	6	1	-	-
Average Benefit	\$-	\$3,783	\$3,643	\$6,438	\$6,010	\$5,950	\$-	\$-
Ave Final Ave Salary	No New Retirees in 2018							
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	5	6	6	1	-	-
Average Benefit	\$-	\$3,783	\$3,850	\$5,826	\$6,010	\$5,950	\$-	\$-
Ave Final Ave Salary	No New Retirees in 2017							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	4	4	5	1	-	-
Average Benefit	\$-	\$3,783	\$3,633	\$5,391	\$5,706	\$5,950	\$-	\$-
Ave Final Ave Salary	No New Retirees in 2016							
2015	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	4	4	5	1	-	-
Average Benefit	\$-	\$3,783	\$3,633	\$5,391	\$5,706	\$5,950	\$-	\$-
Ave Final Ave Salary	\$155,143							
2014	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	3	3	5	1	-	-
Average Benefit	\$-	\$3,783	\$2,972	\$4,879	\$5,706	\$5,950	\$-	\$-
Ave Final Ave Salary	No New Retirees in 2014							
2013	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	2	3	5	1	-	-
Average Benefit	\$-	\$-	\$2,801	\$4,879	\$5,706	\$5,950	\$-	\$-
Ave Final Ave Salary	\$120,159							
2012	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	1	3	4	1	-	-
Average Benefit	\$-	\$-	\$3,014	\$4,879	\$5,425	\$5,950	\$-	\$-
Ave Final Ave Salary	No New Retirees in 2012							

Schedule of Monthly Benefit Payments

Law Enforcement Pension Plan								
	Years of Service							
2021	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	138	138	176	132	516	173	75	12
Average Benefit	\$1,845	\$959	\$1,728	\$1,973	\$2,551	\$3,350	\$3,879	\$4,348
Ave Final Ave Salary	\$66,120							
2020	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	139	137	166	124	474	167	70	12
Average Benefit	\$1,852	\$936	\$1,689	\$1,948	\$2,519	\$3,346	\$3,816	\$4,134
Ave Final Ave Salary	\$66,415							
2019	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	150	127	149	116	439	159	66	10
Average Benefit	\$1,899	\$916	\$1,690	\$1,919	\$2,484	\$3,260	\$3,699	\$4,001
Ave Final Ave Salary	\$64,946							
2018	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	143	125	138	108	404	153	63	10
Average Benefit	\$1,865	\$915	\$1,713	\$1,881	\$2,438	\$3,225	\$3,718	\$4,001
Ave Final Ave Salary	\$65,865							
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	147	118	132	100	373	143	57	6
Average Benefit	\$1,863	\$890	\$1,674	\$1,853	\$2,404	\$3,150	\$3,774	\$3,787
Ave Final Ave Salary	\$62,802							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	148	113	115	94	357	135	55	6
Average Benefit	\$1,872	\$905	\$1,651	\$1,827	\$2,378	\$3,051	\$3,785	\$3,787
Ave Final Ave Salary	\$61,349							
2015	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	151	102	107	91	334	122	47	5
Average Benefit	\$1,861	\$902	\$1,630	\$1,819	\$2,352	\$3,013	\$3,750	\$3,878
Ave Final Ave Salary	\$61,426							
2014	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	151	93	101	82	309	111	41	3
Average Benefit	\$1,907	\$944	\$1,634	\$1,780	\$2,319	\$2,953	\$3,707	\$3,777
Ave Final Ave Salary	\$57,765							
2013	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	155	83	78	78	281	106	37	3
Average Benefit	\$1,893	\$906	\$1,536	\$1,752	\$2,292	\$2,892	\$3,722	\$3,524
Ave Final Ave Salary	\$58,151							
2012	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	157	75	70	73	252	96	33	2
Average Benefit	\$1,885	\$909	\$1,527	\$1,762	\$2,254	\$2,835	\$3,744	\$3,105
Ave Final Ave Salary	\$58,829							

Schedule of Monthly Benefit Payments

Air Guard Firefighter Pension Plan								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
2021	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	1	-	4	9	5	-	-
Average Benefit	\$-	*	\$-	\$2,231	\$2,801	\$4,107	\$-	\$-
Ave Final Ave Salary	\$65,707							
2020	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	4	7	4	-	-
Average Benefit	\$-	\$-	\$-	\$2,231	\$2,804	\$4,081	\$-	\$-
Ave Final Ave Salary	\$73,463							
2019	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	3	7	3	-	-
Average Benefit	\$-	\$-	\$-	*	\$2,804	*	\$-	\$-
Ave Final Ave Salary	\$64,889							
2018	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	3	6	2	-	-
Average Benefit	\$-	\$-	\$-	*	\$2,892	*	\$-	\$-
Ave Final Ave Salary	\$56,838							
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	3	5	2	-	-
Average Benefit	\$-	\$-	\$-	*	\$3,010	*	\$-	\$-
Ave Final Ave Salary	\$89,657							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	2	5	2	-	-
Average Benefit	\$-	\$-	\$-	*	\$3,010	*	\$-	\$-
Ave Final Ave Salary	\$75,026							
2015	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	2	4	-	-	-
Average Benefit	\$-	\$-	\$-	*	\$2,955	\$-	\$-	\$-
Ave Final Ave Salary	\$62,088							
2014	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	2	3	-	-	-
Average Benefit	\$-	\$-	\$-	*	*	\$-	\$-	\$-
Ave Final Ave Salary	\$59,799							
2013	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	1	2	-	-	-
Average Benefit	\$-	\$-	\$-	*	*	\$-	\$-	\$-
Ave Final Ave Salary	\$93,530							
2012	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	-	1	1	-	-	-
Average Benefit	\$-	\$-	\$-	*	*	\$-	\$-	\$-
Ave Final Ave Salary	No New Retirees in 2012							

* Average benefit is not shown for cells with less than or equal to three participants

Public Employees Pension Plan			
Pensions In Force as of December 31, 2021			
By Monthly Amount		By Nearest Age	
Under \$ 200	1,566	Under 50	63
\$ 200 - \$ 399	3,122	50 - 54	97
\$ 400 - \$ 599	2,893	55 - 59	784
\$ 600 - \$ 799	2,390	60 - 64	3,734
\$ 800 - \$ 999	2,145	65 - 69	7,127
\$ 1,000 - \$ 1,499	4,223	70 - 74	7,237
\$ 1,500 - \$ 1,999	3,086	75 - 79	5,085
\$ 2,000 - \$ 2,499	2,688	80 - 84	3,260
\$ 2,500 & Over	8,113	85 & Over	2,839
Total	30,226	Total	30,226

Public Employees Pension Plan									
Pensions By Payout Option							Count Elected Self-Funded COLA**		
Pensioners:	Count			Monthly Benefit			1%	2%	3%
	Male	Female	Total	Male	Female	Total			
Option 1	2,274	7,213	9,487	\$4,233,021	\$11,132,543	\$15,365,564	43	39	59
Option 2	4,862	3,966	8,828	\$11,029,014	\$6,925,447	\$17,954,461	37	42	53
Option 2P	1,512	2,170	3,682	\$2,929,654	\$4,085,103	\$7,014,757	18	23	32
Option 3	492	628	1,120	\$1,256,503	\$1,158,888	\$2,415,391	7	4	5
Option 3P	299	629	928	\$747,078	\$1,412,230	\$2,159,308	5	9	9
Option 4a	309	597	906	\$518,575	\$859,032	\$1,377,607	10	5	8
Option 4b	86	144	230	\$141,034	\$207,198	\$348,232	7	9	6
Option 5	547	1,594	2,141	\$885,442	\$2,229,368	\$3,114,810	16	11	19
Total	10,381	16,941	27,322	\$21,740,321	\$28,009,809	\$49,750,130	143	142	191
Beneficiaries	669	2,235	2,904	\$762,470	\$3,021,627	\$3,784,097	-	-	-
Total	11,050	19,176	30,226	\$22,502,791	\$31,031,436	\$53,534,227	143	142	191

** Option totals in left portion of the table include these counts of members who elected a self-funded COLA option.

Option 1 - Provides a lifetime benefit as calculated in the formula. Upon the retiree's death, the beneficiary would receive a lump-sum payment of any remaining contributions and interest in the account.

Option 2 - Full joint and survivor benefit. Based on both the life expectancy of the retiree and beneficiary. When the retiree dies, the beneficiary receives the same benefit payment for the remainder of their life.

Option 2P - Full joint and survivor benefit with pop-up provision. Based on both the life expectancy of the retiree and beneficiary. When the retiree dies, the beneficiary receives the same benefit payment for the remainder of their life. If the beneficiary dies first, the benefit pops-up to Option 1.

Option 3 - ½ joint and survivor benefit. Based on both the life expectancy of the retiree and beneficiary. When the retiree dies, the beneficiary receives one-half the monthly benefit payment for the remainder of their life.

Option 3P - ½ joint and survivor benefit. Based on both the life expectancy of the retiree and beneficiary. When the retiree dies, the beneficiary receives one-half the monthly benefit payment for the remainder of their life. If the beneficiary dies first, the benefit pops-up to Option 1.

Option 4a - Ten Year Certain Benefit. Based on the age of the retiree. If the retiree dies before receiving the benefit for 10 years, the beneficiary would receive the allowance for the balance of the 10-year period.

Option 4b - Twenty Year Certain Benefit. Based on the age of the retiree. If the retiree dies before receiving the benefit for 20 years, the beneficiary would receive the allowance for the balance of the 20-year period.

Option 5 - Lifetime benefit with no beneficiary. Payable during the retiree's lifetime with no provision for any beneficiary payment after the retiree's death.

Pensions in Force

Public Employees Pension Plan									
Pensions Awarded During 2021									
	Option 1	Option 2	Option 2P	Option 3	Option 3P	Option 4a*	Option 4b	Option 5	Total
Under \$200	21	8	2	0	0	2	1	23	57
\$200 - \$399	58	31	10	1	4	2	6	51	163
\$400 - \$599	36	29	13	2	0	4	5	47	136
\$600 - \$799	42	26	11	4	4	1	2	56	146
\$800 - \$999	44	33	6	9	0	1	3	48	144
\$1,000 - \$1,499	86	66	15	8	3	4	7	63	252
\$1,500 - \$1,999	62	42	23	8	6	5	3	40	189
\$2,000 - \$2,499	42	56	14	5	5	3	3	23	151
\$2,500 & Over	158	216	71	36	20	10	7	87	605
Total	549	507	165	73	42	32	37	438	1,843

Options include those who elected a self-funded COLA option

*Option 4a includes 7 beneficiaries who are receiving a certain only benefit.

Pensions In Force

State Highway Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan

Pensions In Force as of December 31, 2021

By Monthly Amount		By Nearest Age	
Under \$200	1	Under 50	12
\$200 - \$399	3	50 - 54	27
\$400 - \$599	10	55 - 59	49
\$600 - \$799	20	60 - 64	49
\$800 - \$999	12	65 - 69	78
\$1,000 - \$1,499	46	70 - 74	61
\$1,500 - \$1,999	40	75 - 79	36
\$2,000 - \$2,499	46	80 - 84	32
\$2,500 & Over	187	85 & Over	21
Total	365	Total	365

Paid Firemen's Pension Plan A

Pensions In Force as of December 31, 2021

By Monthly Amount		By Nearest Age	
Under \$200	0	Under 50	0
\$200 - \$399	1	50 - 54	0
\$400 - \$599	0	55 - 59	4
\$600 - \$799	0	60 - 64	39
\$800 - \$999	2	65 - 69	60
\$1,000 - \$1,499	3	70 - 74	46
\$1,500 - \$1,999	0	75 - 79	49
\$2,000 - \$2,499	5	80 - 84	31
\$2,500 & Over	248	85 & Over	30
Total	259	Total	259

Judicial Pension Plan

Pensions In Force as of December 31, 2021

By Monthly Amount		By Nearest Age	
Under \$200	0	Under 50	0
\$200 - \$399	0	50 - 54	0
\$400 - \$599	0	55 - 59	0
\$600 - \$799	0	60 - 64	1
\$800 - \$999	0	65 - 69	9
\$1,000 - \$1,499	0	70 - 74	12
\$1,500 - \$1,999	1	75 - 79	4
\$2,000 - \$2,499	0	80 - 84	4
\$2,500 & Over	31	85 & Over	2
Total	32	Total	32

Air Guard Firefighter Pension Plan

Pensions In Force as of December 31, 2021

By Monthly Amount		By Nearest Age	
Under \$200	0	Under 50	1
\$200 - \$399	0	50 - 54	5
\$400 - \$599	0	55 - 59	3
\$600 - \$799	0	60 - 64	5
\$800 - \$999	0	65 - 69	3
\$1,000 - \$1,499	0	70 - 74	2
\$1,500 - \$1,999	4	75 - 79	0
\$2,000 - \$2,499	2	80 - 84	0
\$2,500 & Over	13	85 & Over	0
Total	19	Total	19

Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan

Pensions In Force as of December 31, 2021

By Monthly Amount		By Nearest Age	
Under \$50	2	Under 60	28
\$50 - \$99	25	60 - 64	290
\$100 - \$149	116	65 - 69	442
\$150 - \$199	164	70 - 74	375
\$200 - \$249	204	75 - 79	253
\$250 - \$299	151	80 & Over	258
\$300 - \$349	147		
\$350 - \$399	166		
\$400 & Over	671		
Total	1,646	Total	1,646

Paid Firemen's Pension Plan B

Pensions In Force as of December 31, 2021

By Monthly Amount		By Nearest Age	
Under \$200	0	Under 50	7
\$200 - \$399	0	50 - 54	34
\$400 - \$599	1	55 - 59	32
\$600 - \$799	3	60 - 64	58
\$800 - \$999	4	65 - 69	31
\$1,000 - \$1,499	10	70 - 74	8
\$1,500 - \$1,999	13	75 - 79	1
\$2,000 - \$2,499	21	80 - 84	0
\$2,500 & Over	119	85 & Over	0
Total	171	Total	171

Law Enforcement Pension Plan

Pensions In Force as of December 31, 2021

By Monthly Amount		By Nearest Age	
Under \$200	9	Under 50	134
\$200 - \$399	53	50 - 54	146
\$400 - \$599	69	55 - 59	181
\$600 - \$799	56	60 - 64	277
\$800 - \$999	54	65 - 69	327
\$1,000 - \$1,499	154	70 - 74	281
\$1,500 - \$1,999	215	75 - 79	113
\$2,000 - \$2,499	295	80 - 84	44
\$2,500 & Over	617	85 & Over	19
Total	1,522	Total	1,522

Member and Benefit Recipient Statistics

Member and Benefit Recipient Statistics										
	Public Employees	State Highway Patrol, Game & Fish Warden, and Criminal Investigator	Volunteer Firefighter, Emergency Medical Technician and Search & Rescue	Paid Firemen Plan A	Paid Firemen Plan B	Judicial Plan	Law Enforcement	Air Guard Firefighter	Total	
Active Members – 12/31/2021	34,533	298	2,366	0	386	53	2,579	38	40,253	
Retirement Benefits:										
Total receiving retirement benefits on December 31, 2020	29,407	354	1,608	264	159	31	1,442	15	33,280	
Total added to rolls in 2021	1,843	25	94	13	13	1	114	4	2,107	
Total removed from rolls in 2021	1,024	14	56	18	1	0	34	0	1,147	
Total receiving retirement benefits - December 31, 2021	30,226	365	1,646	259	171	32	1,522	19	34,240	
Total paid in retirement benefits in 2021 (amounts in millions)	\$642.4	\$11.9	\$7.1	\$16.1	\$7.2	\$2.0	\$41.2	\$0.7	\$728.6	
Average monthly benefit	\$1,771	\$2,715	\$358	\$5,179	\$3,495	\$5,328	\$2,255	\$2,975	N/A	

Public Employee Plan Active Membership by Year										
	2021	Total	2020	Total	2019	Total	2018	Total	2017	Total
State	7,196	21%	7,428	21%	7,516	21%	7,542	22%	7,616	22%
University	1,111	3%	1,060	3%	1,075	3%	1,065	3%	1,017	3%
Community Colleges	1,049	3%	1,109	3%	1,178	3%	1,237	4%	1,360	4%
Schools	17,827	52%	18,083	52%	17,911	51%	18,048	52%	17,584	50%
Counties	2,409	7%	2,460	7%	2,497	7%	2,467	7%	2,436	7%
Libraries	357	1%	365	1%	387	1%	403	1%	396	1%
Cities & Towns	2,435	7%	2,377	7%	2,396	7%	2,418	7%	2,412	7%
Weed & Pest	90	0%	93	0%	94	0%	103	0%	86	0%
Irrigation Districts	67	0%	62	0%	67	0%	67	0%	64	0%
Others	1,992	6%	2,073	6%	2,085	6%	1,523	4%	2,042	6%
Totals	34,533	100%	35,110	100%	35,206	100%	34,873	100%	35,013	100%

	2016	Total	2015	Total	2014	Total	2013	Total	2012	Total
State	7,681	20%	7,762	20%	7,866	21%	7,830	21%	7,926	22%
University	1,074	3%	1,174	3%	1,155	3%	1,113	3%	1,099	3%
Community Colleges	1,321	4%	1,350	4%	1,322	4%	1,334	4%	1,336	4%
Schools	18,369	50%	18,438	50%	18,230	50%	18,023	50%	17,735	49%
Counties	2,491	7%	2,583	7%	2,576	7%	2,518	7%	2,498	7%
Libraries	403	1%	434	1%	426	1%	446	1%	443	1%
Cities & Towns	2,465	7%	2,580	7%	2,525	7%	2,495	7%	2,469	7%
Weed & Pest	105	0%	117	0%	118	0%	109	0%	107	0%
Irrigation Districts	70	0%	65	0%	68	0%	66	0%	70	0%
Others	1,913	7%	2,074	7%	2,203	7%	2,420	7%	2,761	7%
Totals	35,892	100%	36,577	100%	36,489	100%	36,354	100%	36,444	100%

Active Membership

Public Employee Plan Active Membership by Age and Years of Service								
Age Last Birthday	Years of Service							Total
	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 Plus	
Less - 20	91	0	0	0	0	0	0	91
20 – 24	1,250	11	0	0	0	0	0	1,261
25 – 29	2,186	371	4	0	0	0	0	2,561
30 – 34	1,889	1,277	253	2	0	0	0	3,421
35 – 39	1,911	1,278	1,018	242	2	0	0	4,451
40 – 44	1,676	1,154	920	806	145	3	0	4,704
45 – 49	1,249	989	834	699	551	98	4	4,424
50 – 54	1,079	867	748	656	593	478	119	4,540
55 – 59	961	702	653	664	549	392	338	4,259
60 – 64	692	553	505	495	443	240	395	3,323
65 - 69	298	212	169	154	106	70	103	1,112
Over 70	138	72	49	48	27	17	35	386
Total	13,420	7,486	5,153	3,766	2,416	1,298	994	34,533

Average Age = 45.8

Average Service = 9.6

Affiliated Employers - Top Ten Largest Employers

The following schedules compare the top ten largest employers within the Wyoming Retirement System at 12/31/2021 to 12/31/2012.

TEN LARGEST EMPLOYERS					
12/31/2021			12/31/2012		
Public Employee Pension Plan	# of Employees	%	Public Employee Pension Plan	# of Employees	%
State of Wyoming	7,196	20.8%	State of Wyoming	7,926	21.7%
Laramie County School District # 1	2,355	6.8%	Natrona County School District # 1	2,281	6.3%
Natrona County School District # 1	2,128	6.2%	Laramie County School District # 1	2,247	6.2%
Campbell County School District	1,683	4.9%	Campbell County School District	1,691	4.6%
University of Wyoming	1,111	3.2%	University of Wyoming	1,099	3.0%
Sweetwater County School District # 1	812	2.4%	Sweetwater County School District # 1	1,046	2.9%
Albany County Schools	708	2.1%	Albany County School District	785	2.2%
Sheridan County School District # 2	592	1.7%	Sheridan County School District # 2	623	1.7%
Fremont County School District # 25	547	1.6%	Uinta County School District # 1	544	1.5%
Uinta County School District # 1	541	1.6%	Sweetwater County School District # 2	541	1.5%
All Others	16,860	48.8%	All Others	17,661	48.5%
Total	34,533	100.0%	Total	36,444	100.0%

12/31/2021		
State Highway Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan	# of Employees	%
State of Wyoming	298	100.0%
Total	298	100.0%

12/31/2012		
State Highway Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan	# of Employees	%
State of Wyoming	322	100.0%
Total	322	100.0%

12/31/2021		
Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan	# of Employees	%
Fremont County Fire Protection District	127	5.4%
Cody Volunteer Fire Department	78	3.3%
Sublette County Unified Fire	73	3.1%
Campbell County Volunteer Fire Department	55	2.3%
Riverton Volunteer Fire Department	52	2.2%
Albany County Volunteer Fire Department	51	2.2%
Jackson Hole Volunteer Fire	51	2.2%
Sinclair Refinery Volunteer Fire Department	47	2.0%
Sweetwater District 1 Volunteer Fire Department	46	1.9%
Albany County Fire District #1	45	1.9%
All Others	1,741	73.6%
Total	2,366	100.0%

12/31/2015		
Volunteer Firefighter and Emergency Medical Technician Pension Plan	# of Employees	%
Fremont County Fire Protection District	155	6.5%
Campbell County Volunteer Fire Department	99	4.2%
Sublette County Unified Fire	72	3.0%
Cody Volunteer Fire Department	67	2.8%
Jackson Hole Volunteer Fire	61	2.6%
Sinclair Refinery Volunteer Fire Department	57	2.4%
Holly Frontier Refinery Fire Rescue	53	2.2%
Powell Volunteer Fire Department	51	2.1%
Lander Volunteer Fire Department	50	2.1%
Riverton Volunteer Fire Department	50	2.1%
All Others	1,664	69.9%
Total	2,379	100.0%

Note: Volunteer Firefighter, Emergency Medical Technician, and Search & Rescue Pension Plan top ten information is not available before 2015.

Note: Paid Firemen's Pension Plan A is a closed plan and as such does not have any contributing employers.

12/31/2021		
Paid Firemen's Pension Plan B	# of Employees	%
City of Cheyenne	90	23.3%
City of Casper	74	19.2%
City of Laramie	45	11.7%
City of Rock Springs	35	9.1%
Campbell County	30	7.8%
Jackson/Teton County	27	7.0%
Natrona County Fire Protection	19	4.9%
City of Sheridan	17	4.4%
City of Rawlins	11	2.8%
Town of Mills	10	2.6%
All Others	28	7.3%
Total	386	100.0%

12/31/2012		
Paid Firemen's Pension Plan B	# of Employees	%
City of Cheyenne	91	25.1%
City of Casper	76	20.9%
City of Laramie	47	12.9%
City of Rock Springs	35	9.6%
Campbell County	24	6.6%
Natrona County Fire Protection	20	5.5%
City of Sheridan	17	4.7%
Jackson/Teton County	15	4.1%
City of Rawlins	9	2.5%
Town of Mills	8	2.2%
All Others	21	5.8%
Total	363	100.0%

Affiliated Employers - Top Ten Largest Employers

12/31/2021		
Judicial Pension Plan	# of Employees	%
State of Wyoming	53	100.0%
Total	53	100.0%

12/31/2012		
Judicial Pension Plan	# of Employees	%
State of Wyoming	41	100.0%
Total	41	100.0%

12/31/2021		
Law Enforcement Pension Plan	# of Employees	%
State of Wyoming	604	23.4%
Laramie County	144	5.6%
City of Casper	120	4.7%
Campbell County	119	4.6%
City of Cheyenne	105	4.1%
Natrona County	104	4.0%
Fremont County	71	2.8%
City of Gillette	63	2.4%
Sweetwater County	62	2.4%
Sublette County	61	2.4%
All Others	1,126	43.7%
Total	2,579	100.0%

12/31/2012		
Law Enforcement Pension Plan	# of Employees	%
State of Wyoming	780	27.5%
Laramie County	149	5.3%
Natrona County	120	4.2%
Campbell County	116	4.1%
City of Casper	109	3.8%
City of Cheyenne	103	3.6%
Fremont County	86	3.0%
Sweetwater County	74	2.6%
City of Gillette	64	2.3%
City of Laramie	63	2.2%
All Others	1,170	41.3%
Total	2,834	100.0%

12/31/2021		
Air Guard Firefighter Pension Plan	# of Employees	%
State of Wyoming	38	100.0%
Total	38	100.0%

12/31/2012		
Air Guard Firefighter Pension Plan	# of Employees	%
State of Wyoming	31	100.0%
Total	31	100.0%

Affiliated Employers - List of Employers By Plan

Public Employees Pension Plan	Public Employees Pension Plan	Public Employees Pension Plan
Municipalities	Municipalities (Continued)	Counties
Afton	LaGrange	Albany
Alpine	Lander	Big Horn
Baggs	Laramie	Campbell
Bairoil	Lingle	Carbon
Bar Nunn	Lovell	Converse
Basin	Lusk	Crook
Bear River	Lyman	Fremont
Big Piney	Marbleton	Goshen
Buffalo	Medicine Bow	Hot Springs
Burns	Meeteetse	Johnson
Byron	Midwest	Laramie
Casper	Mills	Lincoln
Cheyenne	Moorcroft	Natrona
Chugwater	Mountain View	Park
Cody	Newcastle	Platte
Cokeville	Pine Bluffs	Sheridan
Cowley	Pine Haven	Sublette
Deaver	Pinedale	Sweetwater
Diamondville	Powell	Teton
Dixon	Ranchester	Uinta
Douglas	Rawlins	Washakie
Dubois	Riverton	Weston
East Thermopolis	Rock River	
Edgerton	Rock Springs	Public Employees Pension Plan
Elk Mountain	Rolling Hills	University & Colleges
Encampment	Saratoga	Casper Community College
Evanston	Sheridan	Central Wyoming Community College
Evansville	Shoshoni	College
Fort Laramie	Sinclair	Eastern Wyoming College
Frannie	Star Valley Ranch	Laramie County Community College
Gillette	Sundance	College
Glendo	Ten Sleep	Northern Wyoming Community College
Glenrock	Thayne	College
Granger	Thermopolis	Northwest College
Green River	Torrington	University of Wyoming
Greybull	Upton	Western Wyoming Community College
Guernsey	Wamsutter	
Hanna	Wheatland	
Hudson	Worland	
Hulett	Yoder	
Jackson		
Kaycee		
Kemmerer		

Affiliated Employers - List of Employers By Plan

Public Employees Pension Plan

Libraries

Albany County
 Big Horn County
 Carbon County
 Converse County
 Crook County
 Fremont County
 Goshen County
 Hot Springs County
 Johnson County
 Laramie County
 Lincoln County
 Natrona County
 Park County
 Platte County
 Sheridan County
 Sublette County
 Sweetwater County
 Teton County
 Uinta County
 Washakie County
 Weston County

Public Employees Pension Plan

Irrigation Districts

Big Horn Canal
 Cody Canal
 Deaver
 Goshen
 Hanover
 Heart Mountain
 Lakeview
 LaPrele
 Shoshone
 Wheatland
 Willwood

Public Employees Pension Plan

Other Employers

Afton/Lincoln County Airport
 Albany County Fair Board
 Albany County SAFE Project
 Ark Regional Services Inc.
 Baggs Solid Waste
 Basin Authority Child Support
 Big Horn County Fire District # 1
 Big Horn County Solid Waste District
 Big Horn Enterprises
 Big Horn Regional Joint Powers Board
 Big Piney Cemetery District
 Bridger Valley Joint Powers Board
 Byron Solid Waste
 Campbell County Cemetery District
 Campbell County Conservation District
 Campbell County Public Land DBA Cam-plex
 Campbell County Senior Citizens Association, Inc.
 Carbon County COVE
 Carbon County Senior Services, Inc.
 Casper/Natrona County Airport
 Central Wyoming Counseling Center
 Central Wyoming Senior Services
 Cheyenne Board of Public Utilities
 Cheyenne Housing Authority
 Cheyenne Regional Airport
 Child Development Services Fremont County
 Child Support Authority 4th Judicial District
 Child Support Authority 6th Judicial District
 Children's Advocacy Project
 Children's Learning Center
 City of Cheyenne-Laramie County Health Department
 Clear Creek Conservation District
 Cody Conservation District
 Community Action Partnership/Natrona County
 Converse County Aging Services
 Converse County Airport

Public Employees Pension Plan

Other Employers (Continued)

Converse County Conservation District
 Converse County Senior Housing
 Converse Hope Center
 Crisis Intervention Services
 Crisis Prevention and Response Center
 Crook County Fair
 Crook County Museum District
 Crook County Natural Resource District
 Crown Hill Cemetery District
 Deaver-Frannie Cemetery District
 Dubois-Crowheart Conservation District
 Eastern Laramie County Solid Waste Disposal District
 Eden Valley Telehealth Services
 Eppson Center For Seniors
 Evanston Housing Authority
 Evanston Parks & Recreation
 Fremont County Fair
 Fremont County Fire Protection District
 Fremont County Museum
 Fremont County Solid Waste
 Gillette Abuse Refuge Foundation
 Gillette/Wright/Campbell County Fire Protection Joint Powers Board
 Glenrock Area Solid Waste Disposal District
 Glenrock Cemetery District
 Glenrock Community Recreation District
 Glenrock Hospital District
 Goshen County Fair
 Goshen County Senior Friendship Center
 Green River/Rock Springs/Sweetwater County Joint Powers Water Board
 Greybull Recreation District
 High Country Behavioral Health
 Hope Agency Inc, Hot Springs Crisis Line
 Hot Springs County Cemetery District

Affiliated Employers - List of Employers By Plan

Public Employees Pension Plan	Public Employees Pension Plan	Public Employees Pension Plan
Other Employers (Continued)	Other Employers (Continued)	Other Employers (Continued)
Hot Springs County Senior Citizens Center	Popo Agie Conservation District	Sweetwater County Transit Authority
Jackson Hole Airport	Powell Recreation District	Ten Sleep Senior Center
Jamestown Rio Vista Water Sewer District	Rendezvous Pointe	Teton Conservation District
Jim Gatchell Memorial Museum	Renew	Teton Village Association
Johnson County Cemetery District	Riverside Cemetery District	Teton Village Water and Sewer District
Johnson County Fair Board	Rock Springs/Sweetwater County Airport Board	Thayne Senior Center
Johnson County Solid Waste	SAFV Task Force, Inc. Uinta County	Treatment Court of Sweetwater County
Kemmerer Senior Citizens	Saratoga-Encampment-Rawlins Conservation District	Uinta County Conservation District
Kemmerer-Diamondville Water & Wastewater Joint Powers Board	Self Help Center	Upper Green River Cemetery District
Lander Senior Citizens	Senior Citizens Council	Wardwell Water & Sewer District
Laramie County Conservation	Sheridan County Conservation District	Washakie County Conservation District
Laramie County Fire District #2	Sheridan County Fair Association	Washakie County Solid Waste District #1
Laramie Regional Airport	Sheridan Juvenile Justice Commission Joint Powers Board	Weston County Children's Center
Laramie Rivers Conservation District	Sheridan Recreation District	Weston County Fairgrounds
Lincoln County Fair	Shoshone Municipal Pipeline	Weston County Fire Protection District
Little Snake River Conservation District	Solutions For Life	Weston County Museum District
Local Government Liability Pool	South Big Horn Conservation District	Weston County Natural Resource District
Magic City Enterprises	South Big Horn Senior Citizens, Inc.	White Mountain Water & Sewer District
Meeteetse Conservation District	South Cheyenne Water & Sewer	Wind River Transportation Authority
Meeteetse Recreation District	South Lincoln Special Cemetery District	Worland Fire Protection District #1
Mountain View Cemetery District	Southwest Counseling Services	Worland Senior Center
Natrona County Conservation District	Southwest Sublette County Pioneers	Wyoming Association of Risk Management
Natrona County Fair	Star Valley Conservation District	Wyoming Child & Family Development Inc.
Natrona County Health Department	Star Valley Senior Citizen, Inc.	Wyoming Coalition Against Domestic Violence
Niobrara County Hospital District	Sublette County Conservation District	Wyoming Community Development Authority
North Platte Valley, South Goshen & Lingle/Ft. Laramie Conservation District	Sublette County Rural Health Care	Wyoming County Commissioners Association
Northern Wyoming Mental Health Center	Sublette County SAFV Task Force	Wyoming Education Association
Northwest Rural Water District	Sweetwater County Combined Communications Joint Powers Board	Wyoming High School Activities
Park County Drug Court	Sweetwater County Conservation District	Wyoming Lottery
Park County Fire Protection District #1	Sweetwater County Conservation District Board of Health	Wyoming Public Employees Association
Park County Fire Protection District #2	Sweetwater County District Board of Health	Wyoming School Boards
Park County Museum Board	Sweetwater County Fair Board	Wyoming Senior Citizens Inc.
Pinedale Aquatic Center	Sweetwater County Fire District #1	Wyoming State Bar
Platte County Fair Board	Sweetwater County Museum	Yellowstone Regional Airport
Platte County Housing Authority	Sweetwater County Solid Waste	
Platte County Resource District	Sweetwater County Solid Waste District 2	

Affiliated Employers - List of Employers By Plan

Public Employees Pension Plan

Schools

Albany County Schools
 Big Horn County School District #1
 Big Horn County School District #2
 Big Horn County School District #3
 Big Horn County School District #4
 Campbell County School District #1
 Carbon County School District #1
 Carbon County School District #2
 Converse County School District #1
 Converse County School District #2
 Crook County Schools
 Fremont County School District #1
 Fremont County School District #2
 Fremont County School District #14
 Fremont County School District #21
 Fremont County School District #24
 Fremont County School District #25
 Fremont County School District #38
 Fremont/Wind River County School District #6
 Goshen County School District #1
 Hot Springs County School District #1
 Johnson County School District #1
 Laramie County School District #1
 Laramie County School District #2
 Laramie Montessori School
 Lincoln County School District #1
 Lincoln County School District #2
 Natrona County School District #1
 Niobrara County School District #1
 Park County School District #1
 Park County School District #6
 Park County School District #16
 Platte County School District #1
 Platte County School District #2
 PODER Academy
 PODER Academy Secondary School
 Sheridan County School District #1
 Sheridan County School District #2
 Sheridan County School District #3
 Snowy Range Academy
 Sublette County School District #1
 Sublette County School District #9
 Sweetwater County School District #1

Public Employees Pension Plan

Schools (Continued)

Sweetwater County School District #2
 Teton County School District No. 1
 Uinta County School District #1
 Uinta County School District #4
 Uinta County School District #6
 Washakie County School District #1
 Washakie County School District #2
 Weston County School District #1
 Weston County School District #7

Public Employees Pension Plan

Board of Cooperative Educational Services (BOCES)

Carbon County Higher Education BOCES
 Carbon CSD #2 BOCES
 Fremont County BOCES
 Northeast Wyoming BOCES
 Northwest Wyoming BOCES
 Oyster Ridge BOCES
 Region V BOCES
 Sublette BOCES
 Sweetwater BOCES
 Uinta BOCES #1
 Uinta Co. BOCES #4,#6
 Western/Sublette County # 9 BOCES

Public Employees Pension Plan

State of Wyoming

Attorney General's Office
 Board of Cosmetology
 Board of CPA's
 Board of Equalization
 Board of Livestock
 Board of Medicine
 Board of Nursing
 Board of Outfitters
 Board of Parole
 Board of Pharmacy
 Board of Professional Geologists
 Board of Professional Teaching Standards
 Board of Travel and Tourism
 Business Council
 Commission on Judicial Conduct and Ethics
 Community College Commission
 Department of Administration & Information
 Department of Agriculture
 Department of Audit
 Department of Corrections
 Department of Education
 Department of Enterprise Technology Services
 Department of Environmental Quality
 Department of Family Services
 Department of Fire Prevention and Electrical Safety
 Department of Game & Fish
 Department of Health
 Department of Insurance
 Department of Revenue
 Department of Transportation
 Department of Workforce Services
 District Attorney District #1
 District Attorney District #7
 Environmental Quality Council
 Governor's Mansion
 Governor's Office
 Judicial District 1A
 Judicial District 1B
 Judicial District 1C
 Judicial District 1D

Affiliated Employers - List of Employers By Plan

Public Employees Pension Plan	Public Employees Pension Plan	State Patrol, Game & Fish Warden and Criminal Investigator Pension Plan
State of Wyoming (Continued)	Weed & Pest	
Judicial District 2A	Albany County Weed & Pest	Attorney General's Office
Judicial District 2B	Big Horn County Weed & Pest	Department of Game & Fish
Judicial District 3	Campbell County Weed & Pest	Department of Transportation
Judicial District 3B	Carbon County Weed & Pest	
Judicial District 3C	Converse County Weed & Pest	
Judicial District 4A	Crook County Weed & Pest	
Judicial District 4B	Fremont County Weed & Pest	
Judicial District 5A	Goshen County Weed & Pest	
Judicial District 5B	Hot Springs Weed & Pest	
Judicial District 6	Johnson County Weed & Pest	
Judicial District 6B	Laramie County Weed & Pest	
Judicial District 6C	Lincoln County Weed & Pest	
Judicial District 7A	Natrona County Weed & Pest Control	
Judicial District 7B	Niobrara County Weed & Pest	
Judicial District 7C	Park County Weed & Pest	
Judicial District 8A	Platte County Weed & Pest	
Judicial District 8B	Sheridan County Weed & Pest	
Judicial District 9A	Sublette County Weed & Pest	
Judicial District 9B	Sweetwater County Weed & Pest	
Judicial District 9C	Teton County Weed & Pest	
Legislative Service Office	Uinta County Weed & Pest	
Military Department	Washakie County Weed & Pest	
Miners Hospital Board	Weston County Weed & Pest	
Office of Administrative Hearings		
Office of Guardian ad Litem		
Office of State Lands & Investments		
Oil & Gas Conservation Commission		
Pari-Mutuel Commission		
Public Defenders		
Public Service Commission		
Real Estate Commission		
Retirement System		
Secretary of State		
State Auditor		
State Budget Department		
State Construction Department		
State Engineer's Office		
State Geological Survey		
State Parks & Cultural Resources		
State Treasurer		
Supreme Court		
Water Development Commission		
Wildlife & Natural Resources Trust Board		

Affiliated Employers - List of Employers By Plan

Paid Firemen A Pension Plan

The Paid Firemen's Pension Plan A is a closed plan and as such does not have any contributing employers.

Paid Firemen B Pension Plan

Campbell County
 Casper/Natrona County Airport
 City of Casper
 City of Cheyenne
 City of Laramie
 City of Rawlins
 City of Rock Springs
 City of Sheridan
 Evansville Emergency Services
 Jackson/Teton County Fire Department
 Johnson County Fire Department
 Laramie County Fire District # 2
 Natrona County Fire Protection
 Town of Mills
 Uinta County Fire Protection
 Worland Protection District

Volunteer Firefighter, EMT, and Search & Rescue Pension Plan

Afton Volunteer Fire Department
 Albany County Fire District # 1
 Albany County Volunteer Fire Department
 Albin Volunteer Fire Department
 Alpine Volunteer Fire Department
 Antelope Gap Rural Fire District
 Bairoil Volunteer Fire Department
 Bar Nunn Volunteer Fire Department
 Big Horn #1 Volunteer Fire Department
 Big Horn County Fire Protection District No. 4
 Big Horn County Search and Rescue
 Big Horn County Volunteer Fire - District 5
 Big Horn County Volunteer Fire Department
 Buffalo Volunteer Fire Department
 Campbell County Volunteer Fire Department
 Carbon County Volunteer Fire Department
 Casper Mountain Volunteer Fire Department
 Chugwater Volunteer Fire Department
 Clark Volunteer Fire Department
 Cody Volunteer Fire Department
 Cokeville Volunteer Fire Department/
 Bear River Fire Protection
 Converse County Rural Fire Department
 Converse County Search and Rescue
 Crook County Volunteer Fire Department
 Dayton Volunteer Fire Department
 Douglas Volunteer Fire Department
 Dubois Volunteer Fire Department
 Eden-Farson Fire Control District
 Eden-Farson Volunteer Fire Department
 Elk Mountain Volunteer Fire Department
 Encampment Volunteer Fire Department

Volunteer Firefighter, EMT, and Search & Rescue Pension Plan (Continued)

Evanston Volunteer Fire Department
 Evansville Volunteer Fire Department
 Fort Laramie Volunteer Fire Department
 Fremont County Fire Protection District
 Glendo Volunteer Ambulance - EMT
 Glendo Volunteer Fire Department
 Glenrock Volunteer Fire Department
 Granger Volunteer Fire Department
 Green River Volunteer Fire Department
 Greybull Volunteer Fire Department
 Guernsey Rural Fire District
 Guernsey Volunteer Fire Department
 Hartville Volunteer Fire Department
 Hawk Springs Volunteer Fire Department
 Holly Frontier Refinery Fire Rescue
 Hot Springs County Search and Rescue
 Hulett Emergency Medical Services Inc
 Hulett Volunteer Fire Department
 Jackson Hole - EMT
 Jackson Hole Volunteer Fire
 Jeffrey City Volunteer Fire Department
 Johnson County Fire Control District #1
 Johnson County Rural Healthcare District-EMT
 LaGrange Volunteer Fire Department
 Lander Volunteer Fire Department
 Laramie County #1 Volunteer Fire Department
 Laramie County #10 Volunteer Fire Department
 Laramie County #2 Volunteer Fire Department
 Laramie County #4 Volunteer Fire Department
 Laramie County #5 Volunteer Fire Department
 Laramie County #6 Volunteer Fire Department

Affiliated Employers - List of Employers By Plan

Volunteer Firefighter, EMT, and Search & Rescue Pension Plan (Continued)

Laramie County #8 Volunteer Fire Department

Lingle Volunteer Fire Department

Little Snake River - EMT

Lovell Volunteer Fire Department

Lusk Volunteer Fire Department

Manderson Volunteer Fire Department

Medicine Bow Volunteer Fire Department

Meeteetse Volunteer Fire Department

Moorcroft Volunteer Fire Department

Newcastle Volunteer Fire Department

North Lincoln County Hospital District

Osage Volunteer Fire Department

Other

Palmer Canyon Fire Department

Pine Haven Ambulance

Pine Haven Volunteer Fire Department

Powder River Fire District

Powell Valley Healthcare - EMT

Powell Volunteer Fire Department

Prairie Center Volunteer Fire Department

Rawlins Volunteer Fire Department

Riverton Volunteer Fire Department

Rock River Volunteer Fire Department

Salt Creek Volunteer Fire Department

Saratoga Volunteer Fire Department

Shell Volunteer Fire Department

Sheridan Area Rural Volunteer Fire Department

Sinclair Refinery Volunteer Fire Department

Sinclair Volunteer Fire Department

South Central EMS

South Lincoln Volunteer Fire Department

Story Volunteer Fire Department

Sublette County Unified Fire

Sundance Volunteer Fire Department

Superior Volunteer Fire Department

Volunteer Firefighter, EMT, and Search & Rescue Pension Plan (Continued)

Sweetwater County Volunteer Fire Department

Sweetwater District 1 Volunteer Fire Department

Ten Sleep Ambulance Service - EMT

Ten Sleep Volunteer Fire Department

Teton County Volunteer Search & Rescue

Teton Village Volunteer Fire Department

Thayne Ambulance Service - EMT

Thayne Volunteer Fire Department

Thermopolis Volunteer Fire Department

Tongue River Volunteer Fire Department

Torrington Ambulance Service - EMT

Torrington Volunteer Fire Department

Town of Pine Bluffs EMS

Uinta County - EMT

Uinta County Search and Rescue

Uinta County Volunteer Fire Department

Upton Volunteer Fire Department

Veteran Volunteer Fire Department

Wamsutter Volunteer Fire Department

Washakie County - EMT

Washakie County Search and Rescue

West Park Hospital - EMT

Weston County Volunteer Fire Protection District

Wheatland Volunteer Fire Department

Worland Volunteer Fire Department

Yoder Volunteer Fire Department

Judicial Pension Plan

Wyoming Judicial Branch

Affiliated Employers - List of Employers By Plan

Law Enforcement Pension Plan

Albany County
 Big Horn County
 Campbell County
 Carbon County
 City of Buffalo
 City of Casper
 City of Cheyenne
 City of Cody
 City of Douglas
 City of Evanston
 City of Gillette
 City of Green River
 City of Kemmerer
 City of Lander
 City of Laramie
 City of Newcastle
 City of Powell
 City of Rawlins
 City of Riverton
 City of Rock Springs
 City of Sheridan
 City of Sundance
 City of Torrington
 City of Worland
 Converse County
 Crook County
 Fremont County
 Goshen County
 Hot Springs County
 Johnson County
 Laramie County
 Lincoln County
 Natrona County
 Park County
 Platte County
 Sheridan County
 Sublette County
 Sweetwater County
 Sweetwater County Combined
 Communications Joint Powers Board
 Teton County
 Town of Afton
 Town of Basin
 Town of Cokeville
 Town of Diamondville

Law Enforcement Pension Plan (Continued)

Town of Encampment
 Town of Evansville
 Town of Glenrock
 Town of Greybull
 Town of Guernsey
 Town of Hanna
 Town of Hulett
 Town of Jackson
 Town of Lingle
 Town of Lovell
 Town of Lusk
 Town of Lyman
 Town of Medicine Bow
 Town of Midwest
 Town of Mills
 Town of Moorcroft
 Town of Mountain View
 Town of Pine Bluffs
 Town of Saratoga
 Town of Shoshoni
 Town of Sinclair
 Town of Thermopolis
 Town of Upton
 Town of Wheatland
 Uinta County
 University of Wyoming
 Washakie County
 Weston County
 Wyoming Attorney General's Office
 Wyoming Board of Outfitters
 Wyoming Department of Corrections
 Wyoming Department of
 Transportation
 Wyoming Gaming Commission
 Wyoming Livestock Board

Air Guard Firefighter Pension Plan

Wyoming Military Department



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