



RETIREMENT SYSTEM

A Fiduciary Fund of the State of Wyoming

COMPREHENSIVE ANNUAL FINANCIAL REPORT For the Fiscal Year Ended December 31, 2017



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

Comprehensive Annual Financial Report For the Fiscal Year Ended December 31, 2017

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

Ruth Ryerson, Executive Director
David Swindell, Deputy Director
Jack Riley, Finance Supervisor

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Comprehensive Annual Financial Report 2017

INTRODUCTORY SECTION



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Letter of Transmittal



Wyoming Retirement System

Partnering to Build Financial Security for Members and their Families

Matt Mead
Governor

Ruth Ryerson
Executive Director

June 30, 2018

Wyoming Retirement Board
101 Yellowstone Road, Suite 500
Cheyenne, Wyoming 82002

Dear Board Members:

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Wyoming Retirement System (WRS) including the Wyoming Deferred Compensation Program (457 Plan) for the year ended December 31, 2017. The financial reporting entities of the WRS include the Public Employees Pension Plan; State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan; Paid Firemen's Pension Plans A and B; Judicial Pension Plan; Law Enforcement Pension Plan; Volunteer Firefighter & EMT 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 has been 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, 2017. 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.

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 CAFR.

Letter of Transmittal

Net Pension Liability

The Wyoming Retirement System has an actuarial evaluation annually that calculates the funded status of each of the eight defined benefit plans administered by the system. The 2017 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 reports provide information for accounting purposes. As of January 1, 2018, the Actuarial Funded Ratio for eight plans administered by WRS was as follows:

	Actuarial Funding Ratio	GASB 67 Accounting Ratio
Public Employee Pension Plan	76.28%	76.35%
State Patrol, Game & Fish Warden and Criminal Investigator Plan	77.91%	77.54%
Volunteer Firefighter & EMT Pension Plan	74.40%	74.11%
Paid Fireman's Pension Plan A	51.03%	34.28%
Paid Fireman's Pension Plan B	95.92%	77.98%
Judicial Pension Plan	99.92%	101.37%
Law Enforcement Pension Plan	88.24%	87.99%
Air Guard Firefighters Pension Plan	85.03%	87.23%

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, 2017, the net position for all eight defined benefit plans totaled \$8.5 billion, which represents a 10.5% increase from the \$7.7 billion held on December 31, 2016.

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, four Investment Analysts and two Investment Interns. 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. The annual return of funds for calendar year 2017 was 14.2%, net of fees.

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 by either the State Audit Department or by an independent auditor. The accounting firm of Eide Bailly, LLP, 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 assets, as well as

Letter of Transmittal

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

During 2017, WRS continued to refine its pension administration software system (Retirement Administration and Investment Network or RAIN) which went live in May, 2014. Calendar year 2017 enhancements included improvements to the online employer and participant portals, updates to transaction processes and improvements to internal reports. RAIN will continue to be enhanced during the next few years.

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

- Processed 1,833 retirement applications
- Processed 2,006 refund applications
- Answered approximately 20,802 phone calls
- Accommodated more than 685 walk-in visits with members
- Deposited \$344.6 million dollars in employee, employer and other contributions
- Issued \$584 million dollars in retirement benefits to approximately 28,817 pensioners across eight retirement plans

Awards and Acknowledgments

The WRS submitted its 2016 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 award for 2016. This represents the twenty-fourth (24) consecutive year that WRS has been recognized in this manner. 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 & EMT 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,



Jack Riley
Finance Supervisor



David Swindell
Deputy Director



Ruth Ryerson
Executive Director



Wyoming Retirement System

Partnering to Build Financial Security for Members and their Families

Matt Mead
Governor

Ruth Ryerson
Executive Director

June 30, 2018



Laura Ladd
WRS Board Chair

Dear Members, Benefit Recipients and Employers:

On behalf of the Board of trustees, I am pleased to present the Wyoming Retirement System (WRS) Comprehensive Annual Financial Report (CAFR) for the fiscal year ended December 31, 2017. 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 appropriately attested to by WRS's independent auditors. Additionally, I want to comment on some of the other objectives and accomplishments of WRS which are integral to the successful operation of the system.

Every five years the Board completes an experience study to determine whether the experience of the plan supports the assumptions embedded in it. The ultimate goal is to make sure that the plan is stable and sustainable over the long-term. The Board conducted that process in 2017. The experience study noted that retirees are living longer, that payroll growth is very modest and that future investment results are apt to be more modest, despite 2017's investment return of 14.2%. We adopted updated mortality and payroll assumptions and reduced the assumed future rate of return on WRS's investments from 7.75% to 7.00%.

The Board anticipated that these changes would show that contribution rate increases or other adjustments would be needed to ensure all of the plans reach 100% funded status within 30 years. In the 2018 legislative session, the legislature enacted a contribution rate increase in the Public Employee plan that will take effect September 1, 2018. Rates will go up 50 basis points, raising the total contribution rate from 16.62% of salary to 17.12%. The bill provides for similar increases in the next three years, which will increase the total contribution by a total of 2% to 18.62% by July, 2021. In addition to the contribution rate increase in the Public Employee Plan, the Legislature passed limitations on refunds for employees hired after July 1, 2018 that are not vested and for whom the employer had paid all or part of the employee contribution. This affects all open plans, except for the Volunteer Firefighter & EMT plan which has no employer contributions.

The results of strong investment returns, adoption of more conservative assumptions and the legislative actions combine to show a retirement system that is healthy. All of the plans except for the paid fire plans A and B are projected to be 100% funded or better within 30 years. The Board will consult with our actuaries to develop recommendations for the paid fire plans as well as a further assessment of the other plans to insure that all WRS plans are on solid footing.

From an actuarial standpoint, in 2017 all eight plans realized higher than assumed investment returns and lower than assumed salary increases. The assets for all plans are combined for investment purposes. The net annual return for 2017 was 14.2% versus our long-term goal of 7.75%, which was revised downwards to 7.00% during our August Board meeting. It is important to remember that system funds are invested to provide risk-adjusted returns which exceed our benchmark over the long-term. As such, the Board focuses on 3, 5 and 10-year returns and prudent estimates for the future. With \$8.5 billion in assets under management, the investment team remains focused on positioning the portfolio for the long-term, seeking to achieve our long-term return objective of 7.00% in a cost effective manner and with the appropriate level of risk.

Despite the excellent investment results, our funding ratios declined somewhat, reflecting the more conservative planning assumptions adopted by the Board. The large Public Employee Plan funding ratio is 76.28% compared to 78.14% last

Board Chair's Letter

year. The funding ratios for the other six open plans (Warden, Patrol & DCI Plan, Law Enforcement Plan, Judicial Plan, Paid Firefighter B Plan, Guard Fire Plan and Volunteer Firefighter & EMT Plan) also all declined, for similar reasons.

The Board recognizes the difficulty of changing the assumptions. But it is our duty to prudently manage the system and set assumptions based on quantitative information and forecasts. I'm also appreciative of the legislative support for the Board's decision making process. The Board and the legislature have both demonstrated a willingness to make hard decisions to ensure the plans remain strong over the long-term. The closed Paid Firefighter A Plan continues to present a significant funding need. There is a known funding problem due to the ongoing lack of a dedicated revenue stream. The plan needed \$15.6 million in contributions for 2017 and received none. The funding ratio decreased to 51.03%. Assets are projected to last for 10 years, although market performance could alter that timeframe. WRS continues to inform involved parties about this situation and hopes a solution can be reached soon.

The impact of more conservative assumptions was blunted by the 14.2% investment return in 2017. Investment returns generate 70% of all income to the System, and professional management is extremely important to ensuring the strength of this revenue stream. We are three years into a five-year investment program under the leadership of Sam Masoudi, our Chief Investment Officer. In 2017 we added a third senior investment officer and a third analyst to the staff and are now fully staffed. We'll consider additional ideas to improve investment performance, including performance incentives, fee reviews, and in-sourcing of activities in the coming year.

Exceptional customer service remains a high priority at the Wyoming Retirement System. We continue to refine and improve, RAIN, our pension administration system. WRS will continue to make investments in the RAIN system to enhance our ability to deliver top-tier customer service for years to come.

From a governance standpoint, our eleven-person Board experienced no turnover in the past year. It is a privilege to lead a Board that seeks to represent the interests of the system as a whole in its deliberations and decision making. The Board is a dedicated, knowledgeable group of trustees, each of whom takes their fiduciary duty seriously and demonstrate the highest level of professionalism in their efforts to support members and beneficiaries of the system. I'm mindful that we will have turnover in the next few years, as several of us will be completing multiple terms. Succession planning both for the Board and staff is a top priority in the coming year.

Speaking of succession, Governor Matt Mead will conclude 8 years of leadership as our Governor this coming January. I want to take this opportunity to especially thank him for his support of the Board and the Retirement System during his tenure. We would not be where we are today without his consistent support. We wish Governor Matt Mead and First Lady Carol Mead all the best. 2018 marks the 65th Anniversary of the creation of the Wyoming Retirement System. Since 1953, we have endeavored to provide excellence in administration of the public retirement plans entrusted to us. We've provided retirement security to generations of public servants. Our members' dedication and commitment as public servants to the people of Wyoming is an important part of what makes Wyoming an extraordinary place to call home. We remain committed to ensuring that we can deliver on the retirement promises made to you as a part of your public service. Please consider joining us in the coming year at one of our organized Town Hall meetings. We would love to hear from you and share with you our continued efforts on your behalf.

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.



Laura Ladd, 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 one of whom has professional expertise in investments and finance



Laura Ladd (Board Chair)
Wilson, WY
At Large
First Appointed: 2009
Current Term Expires: 2021



Eric Nelson (Vice Chair)
Casper, WY
At Large
First Appointed: 2015
Current Term Expires: 2023



Mark Gordon (State Treasurer)
Cheyenne/Buffalo, WY
Elected Official



Tom Chapman
Jackson, WY
At Large
First Appointed: 2010
Current Term Expires: 2021



Brian Foster
Cheyenne, WY
State Employees
First Appointed: 2017
Current Term Expires: 2023



Tim Sullivan
Laramie, WY
Counties/Municipalities
First Appointed: 2013
Current Term Expires: 2019



Keith Hay
Rock Springs, WY
At Large
First Appointed: 2013
Current Term Expires: 2021



Vicci Colgan
Cheyenne, WY
Retiree
First Appointed: 2015
Current Term Expires: 2021



Garth Shanklin
Cheyenne, WY
Higher Education
First Appointed: 2009
Current Term Expires: 2023



Kay Watson
Shoshoni, WY
School Employees
First Appointed: 2017
Current Term Expires: 2019



Mike Ceballos
Cheyenne, WY
At Large
First Appointed: 2017
Current Term Expires: 2023

Volunteer Firefighter & EMT Pension Board

The Volunteer Firefighter & EMT 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 and one volunteer EMT who shall be appointed by the Governor for staggered terms of three years. Each member is a volunteer firefighter or EMT with a minimum of five years as a member of a volunteer fire or EMT department service in the State of Wyoming.



Gene Diedtrich (Chairman)
Newcastle, WY



Lanny Applegate (Vice Chair)
Cheyenne, WY



Tracy Brown
Lingle, WY



Kim Lee
Riverton, WY



Jerry Munger
Wheatland, WY



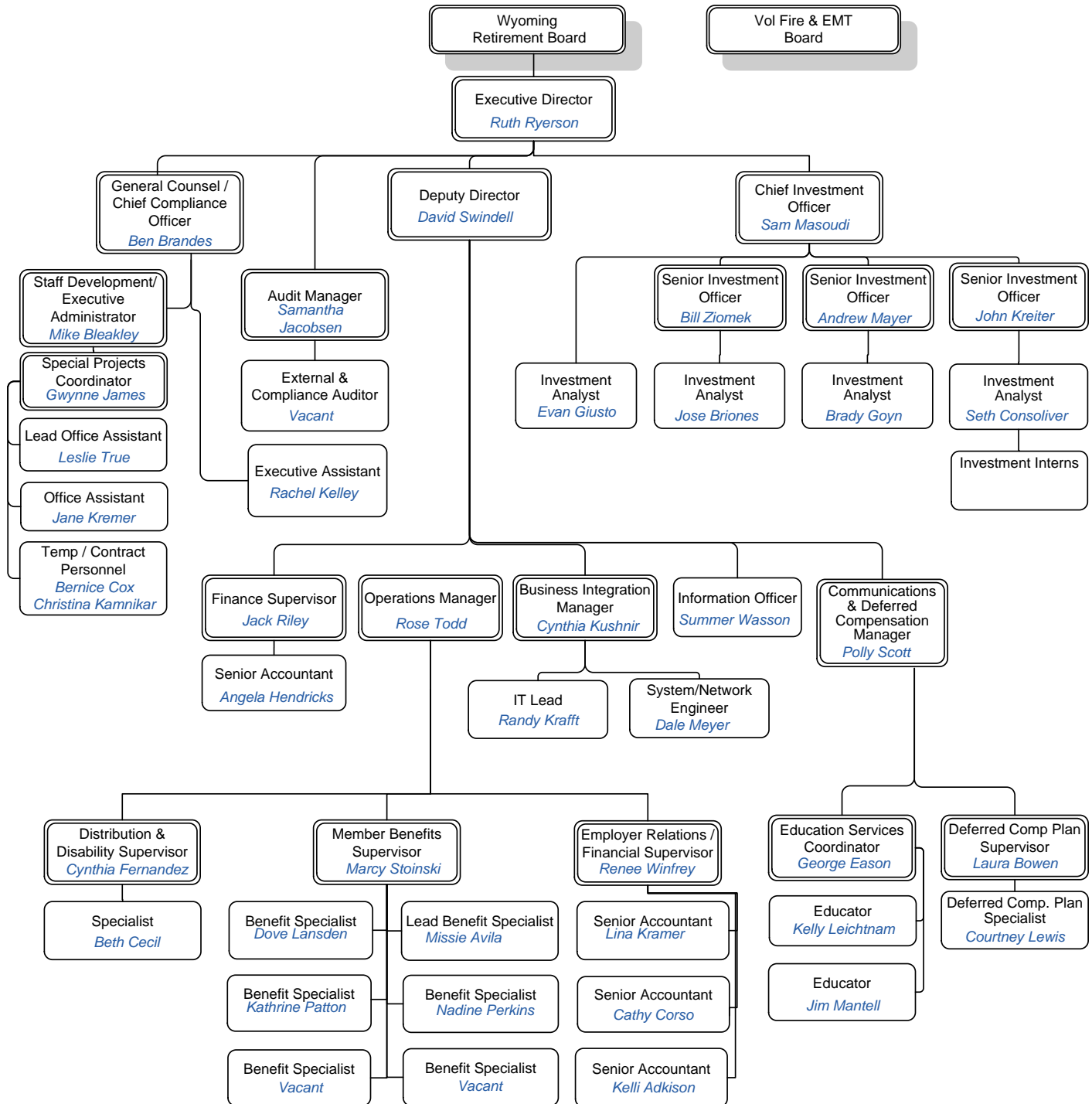
Eric Quinney
Evanston, WY



Alan Sessions
Afton, WY

Organizational Chart

Wyoming Retirement System Organization Chart



Consultants

Actuary:

Gabriel Roeder Smith & Company
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:

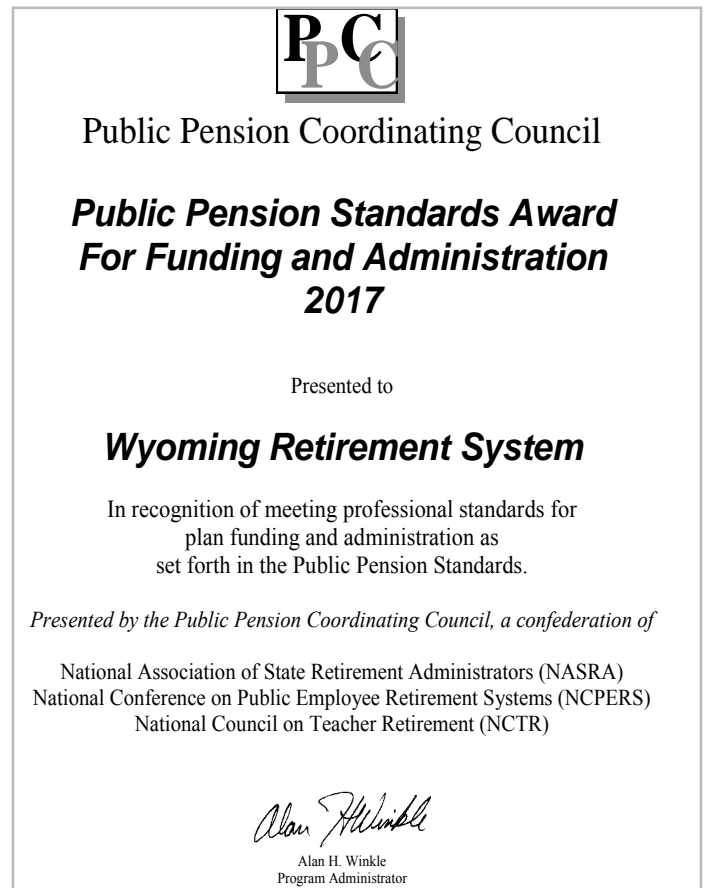
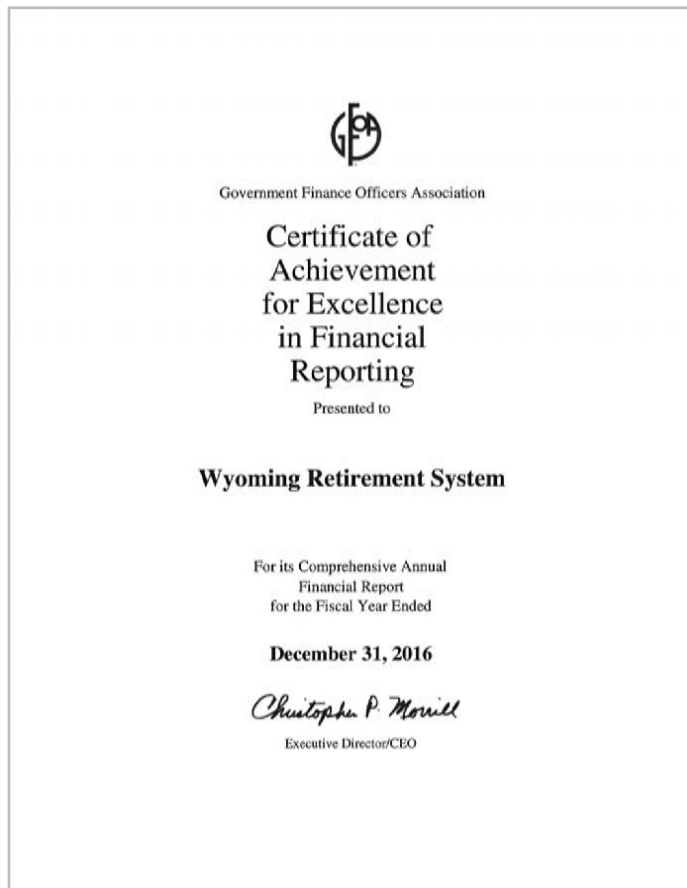
RVK, Inc.
Portland, OR

Deferred Compensation Plan Record Keeper:

Empower Retirement
Greenwood Village, CO

A complete listing of investment managers employed by the Wyoming Retirement System is available in the Investment Section.

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)	16.62% of salary Employee = 8.25% Employer = 8.37%	48 months	<ul style="list-style-type: none"> ■ 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)	16.62% of salary Employee = 8.25% Employer = 8.37%	48 months	<ul style="list-style-type: none"> ■ 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
Warden, Patrol, and DCI	29.44% of salary Employee = 14.56% Employer = 14.88%	72 months	<ul style="list-style-type: none"> ■ Age 50 with 6 yrs service 	2.5% for all yrs of service 75% ceiling	36 continuous months
Volunteer Firefighter & EMT	\$15 per month	60 months	<ul style="list-style-type: none"> ■ 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
Paid Fire A	None	120 months	<ul style="list-style-type: none"> ■ 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	21.245% of salary: Employee = 9.245% Employer = 12%	48 months	<ul style="list-style-type: none"> ■ Age 50 with 4 yrs service 	2.8% for first 25 yrs of service. 70% ceiling	36 continuous months
Judicial	23.72% of salary: Employee = 9.22% Employer = 14.5%	48 months	<ul style="list-style-type: none"> ■ 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
Law Enforcement	17.20% of salary: Employee = 8.60% Employer = 8.60%	48 months	<ul style="list-style-type: none"> ■ 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
Guard Firefighter	23.77% of salary: Employee = 16.65% Employer = 7.12%	48 months	<ul style="list-style-type: none"> ■ 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

Note: The employer contribution for Park Rangers in Public Employee Plan Tier 1 or 2 is 1% greater than the amount shown.

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: W.S. 9-3-401 - W.S. 9-3-432
- Uniform Management of Public Employees Retirement Act: W.S. 9-3-433 - W.S. 9-3-454
- Deferred Compensation Program: W.S. 9-3-501 - W.S. 9-3-509
- State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement: W.S. 9-3-601 - W.S. 9-3-620
- Judicial Retirement: W.S. 9-3-701 - W.S. 9-3-713
- Firemen Pensions and Death Benefits (Plan A): W.S. 15-5-201 - W.S. 15-5-210
- Firemen's Pension Account Reform Act of 1981 (Plan B): W.S. 15-5-401 - W.S.15-5-422
- Volunteer Firefighter and EMT Pension Plan: 35-9-616 - 35-9-628
- Policemen Pensions and Death Benefits: W.S. 15-5-301 - W.S. 15-5-314
- Higher Education Retirement: W.S. 21-19-101 - W.S. 21-19-106
- Public Meetings Act W.S. 16-4-401 - W.S. 16-4-408
- Wyoming Retirement Board Rules
- Volunteer Firefighter and EMT Pension Account Board Rules
- Wyoming Retirement System Board Policy Manual
- Deferred Compensation 457(b) Plan Document



Comprehensive Annual Financial Report 2017

FINANCIAL SECTION



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Independent Auditor's Report



Independent Auditor's Report

To the Board of Trustees
Wyoming Retirement System
Cheyenne, Wyoming

Report on the Financial Statements

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, 2017, and the related statement of changes in fiduciary net position, for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective statement of the fiduciary net position of the Wyoming Retirement System, as of December 31, 2017, and the respective statement of changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America

What inspires you, inspires us. Let's talk. | eidebailly.com

877 W. Main St., Ste. 800 | Boise, ID 83702-5858 | T 208.344.7150 | F 208.344.7435 | EOE

Independent Auditor's Report

Emphasis of Matters

As discussed in Note 3, the financial statements include investments valued at \$2,402,400,398 (28.22 % of net position) as of December 31, 2017, 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.

Other Matters

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 related ratios – multiyear, schedule of investment returns, and schedule of contributions multiyear (collectively the required supplementary information) on pages 19-33 and 60-72 be presented to supplement the basic financial statements. Such information, 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.

Other 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 as a whole. The introductory, other supplementary information, investment, actuarial and statistical sections are presented for purposes of additional analysis and are not a required part of the financial statements.

The other supplementary information accompanying the financial statements listed in the table of contents 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. Such 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.

The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Independent Auditor's Report

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 29, 2018, 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 the 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.

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May 29, 2018

Boise, Idaho

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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, 2017.

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 and Fish Warden and Criminal Investigator Pension Plan, Volunteer Firefighter & EMT 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 Firefighters 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 Notes to the Basic Financial Statements
2. Required Supplementary Information
3. Other Supplementary Information

Collectively, this information presents the combined net position held in trust for pension benefits for each of the funds administered by WRS and the 457 Plan sponsored by WRS as of December 31, 2017. This financial information also summarizes the combined changes in net position held in trust 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, 2017, 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) Trust Funds is presented for the pension and defined contribution funds at December 31, 2017. 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) Trust Funds is presented for the pension and the Defined Contribution Trust Funds for the year ended December 31, 2017. This financial statement reflects the changes in the resources available to pay benefits to members, including retirees and beneficiaries for the calendar year 2017.
 - 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.
1. **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.
2. **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.

Financial Analysis of Defined Benefit Plans

Investments 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 type of investment in the pool is shown in the Statement of Fiduciary Net Position of each respective plan. Investment gains or losses are reported in the Statement of Changes in Fiduciary Net Position of each retirement plan. The rate of return on investment is therefore approximately the same for each of the plans.

Management's Discussion and Analysis

System's Total Investments

At December 31, 2017, WRS held total investments of \$8.5 billion. The combined investment portfolio experienced a return of 14.2% (net of fees) compared with the WRS Benchmark of 14.6%. 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:

Investment results over time compared with WRS benchmarks are presented in the Investment Section of the CAFR. 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, 2017, WRS held \$472 million in Tactical Cash, which was a decrease from the \$765.4 million in Tactical Cash at the end of December 31, 2016. The change in cash is a function of decisions made by WRS Investment managers at year end and is monitored by the Cash Overlay Program.

Equities

On December 31, 2017, WRS held \$4.2 billion in Domestic, International Developed, and Emerging Market equity securities, which was an increase from the \$3.8 billion held at year end 2016. Equity had a return of 22.9% for the year 2017 compared to 22.9% for the benchmark. The Total Equity Blended Index consists of MSCI ACWI until 12/31/2014, a blended benchmark consisting of 52.28% MSCI US IMI, 37.54% MSCI World ex US IMI, and 10.18% MSCI Emerging Market IMI until 3/31/2015, a blended benchmark consisting of 52.28% MSCI US IMI, 37.54% MSCI World ex US IMI 50% Hedged, and 10.18% MSCI Emerging Market IMI until 4/30/2016, a blended benchmark consisting of 50% MSCI US IMI, 37.4% MSCI World ex US IMI 50% Hedged, and 12.6% MSCI Emerging Market IMI until 1/31/2017, and a blended benchmark consisting of 50% Russell 3000 and 50% International Equity Custom Blended Index going forward.

Fixed Income Securities

On December 31, 2017, WRS held \$1.4 billion in fixed income securities, which was higher than the \$881 million in fixed income securities held at year end 2016. Fixed income includes securities such as U.S. Treasury Bonds and Notes, Mortgage-Backed Securities, and Corporate Bonds. In total, fixed income had a return of 3.5% for the year 2017 compared to the customized benchmark's return of 2.9% (Wyoming Custom Total Fixed Income Benchmark consists of Barclays Aggregate from inception to 5/31/2012, Barclays Multiverse until 6/30/2014, Barclays Multiverse Hedged until 4/30/2016, and a blended benchmark consisting of 50% Barclays Multiverse Hedged and 50% Barclays Government going forward).

Marketable Alternatives

On December 31, 2017, WRS held \$1.4 billion in managers with the Marketable Alternatives asset class, compared to the \$1.3 billion held at year end 2016. This asset class returned 11.3% for the year, compared to a return of 7.8% for the benchmark, which consists of the HFRI Fund of Funds Composite Index.

Private Markets

On December 31, 2017, WRS held \$1.0 billion in managers considered to employ private market strategies, an increase from \$929 million on December 31, 2016. Private Markets include such categories as real estate, infrastructure, natural resources,

Management's Discussion and Analysis

and private equity. In total, this asset class returned 8.2% for the year, compared to a vintage year blended benchmark return of 12.1%.

Asset Allocation By Sector	2016		2017	
	Physical Securities	With Overlay	Physical Securities	With Overlay
Tactical Cash	10.00%	0.90%	5.60%	1.50%
Equities	49.70%	54.00%	49.70%	46.90%
Fixed Income	11.60%	16.40%	16.50%	23.30%
Marketable Alternatives (formerly "GTAA")	16.60%	16.60%	16.50%	16.50%
Private Markets (formerly "Alternatives")	12.20%	12.20%	11.80%	11.80%

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

Investment allocation at Fair Value, as of December 31, 2017:

Security Lending

WRS earns additional investment income by lending investment securities to brokers. Northern Trust, WRS's custodial bank, does this on a pooled basis. The brokers provide collateral to the custodial bank and generally use the borrowed securities to cover short sales and failed trades. The custodial bank invests the cash collateral received from the brokers in order to earn interest. On December 31, 2017, the plans had \$548.3 million on loan secured by \$562.2 million in collateral. For the year 2017, net securities lending income for all plans totaled \$2.1 million as compared to net securities lending income for all plans totaled \$2.2 million for the year ending 2016.

Actuarial Valuation and Funding Progress

An actuarial valuation of each WRS defined benefit plan is performed annually. The funded status of each of the Plans 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 2013 and also in 2017, 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 increasing life expectancy and lower long-term investment returns. Funding ratios according to GASB 67 standards range from a high of 101.37% to a low of 34.28%. This schedule shows the January 1, 2018 funding ratios compared with the ratios at January 1 of the prior 6 years. The section also shows the amount by which actuarial assets fell short of actuarial liabilities. At January 1, 2018, the actuarial value of assets fell short of the fair value of liabilities by \$2.5 billion.

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

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, 2017 totaled \$7.4 billion, an increase of \$680.0 million from 2016. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment gains/losses. For the calendar year 2017, employee and employer contributions totaled \$292.0 million, a decrease of \$5.2 million from 2016. The Plan recognized a net investment gain of \$923.9 million for the year 2017 compared with a net investment gain of \$454.7 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 2017, benefits totaled \$516.9 million, an increase of \$33.3 million from a year earlier. The increase in benefits is due to the number of members retiring was greater than the number of those who became deceased. For 2017, the costs of administering the Plan's benefits totaled \$6.5 million, an increase from \$6.0 million a year earlier.

Refunds are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be refunded. Refunds to members terminating service totaled \$18.7 million in 2017, an increase from \$18.1 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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability increased from 73.42% on January 1, 2017 to 76.35% on January 1, 2018. The net pension liability as a percentage of covered payroll decreased from 135.59% to 128.31% as of January 1, 2017 and 2018, respectively. The net pension liability was \$2.28 billion as of January 1, 2018. This is a decrease of \$138.2 million from the prior year.

Public Employee Pension Plan		
Net Position		
December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$2,168,516	\$3,167,519
Investments: Fair Value	6,942,859	5,944,027
Securities Lending Collateral	474,432	372,660
Capital Assets/Net Depr.	3,502	3,814
Total Assets	9,589,309	9,488,020
Liabilities:		
Securities Lending Payable	474,432	372,660
Benefits & Refunds Payable	859	791
Securities Purchased	43,500	23,674
Other Payables	1,711,992	2,412,390
Total Liabilities	2,230,783	2,809,515
Total Net Position	\$7,358,526	\$6,678,505

Public Employee Pension Plan		
Change in Net Position		
December 31, (Dollars in Thousands)		
Additions:	2017	2016
Employee Contributions	\$145,008	\$147,650
Employer Contributions	147,037	149,619
Investment Income	923,878	454,713
Other Income	6,454	6,642
Total Additions	1,222,377	758,624
Deductions:		
Benefits	516,837	483,482
Refunds	18,655	18,128
Admin. Expenses	6,551	5,993
Depreciation Expense	313	312
Total Deductions	542,356	507,915
Change in Net Position	680,021	250,709
Total Beginning Net Position	6,678,505	6,427,796
Total Ending Net Position	\$7,358,526	\$6,678,505

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 and 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, 2017 totaled \$141.6 million, an increase of \$14.2 million from 2016. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment gains/losses. For the calendar year 2017, employee and employer contributions totaled \$6.9 million, a decrease from 2016 of \$25,898. The Plan recognized a net investment gain of \$17.6 million for the year 2017 compared with net investment gain of \$8.6 million a year earlier. This is due to the equity market.

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 2017, benefits totaled \$9.8 million, an increase from \$9.4 million. For 2017, the costs of administering the Plan's benefits totaled \$128,992 compared to \$114,832 a year ago.

Refunds are the results of employees leaving public service and requesting the money they contributed plus interest into the system to be refunded. Refunds to members terminating service totaled \$509,361 in 2017, an increase from \$323,328 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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability increased from 62.53% on January 1, 2017 to 77.54% on January 1, 2018. The net pension liability as a percentage of covered payroll decreased from 322.92% to 173.53% as of January 1, 2017 and 2018, respectively. The net pension liability was \$41.0 million as of January 1, 2018. This is a decrease of \$35.3 million from the prior year.

State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan		
Net Position		
Year Ended December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$42,194	\$60,657
Investments: Fair Value	132,986	112,966
Securities Lending Collateral	9,087	7,082
Capital Assets/Net Depr.	65	71
Total Assets	184,332	180,776
Liabilities:		
Securities Lending Payable	9,087	7,082
Securities Purchased	833	592
Other Payables	32,803	45,716
Total Liabilities	42,723	53,390
Total Net Position	\$141,609	\$127,386

State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan		
Change in Net Position		
Year Ended December 31, (Dollars in Thousands)		
Additions:	2017	2016
Employee Contributions	\$3,429	\$3,441
Employer Contributions	3,503	3,517
Investment Income	17,623	8,622
Other Income	107	294
Total Additions	24,662	15,874
Deductions:		
Benefits Paid	9,795	9,397
Refunds	509	323
Admin. Expenses	129	115
Depreciation Expense	6	6
Total Deductions	10,439	9,841
Change in Net Position	14,223	6,033
Total Beginning Net Position	127,386	121,353
Total Ending Net Position	\$141,609	\$127,386

Management's Discussion and Analysis - Analysis of Individual Plans

Volunteer Firefighter & EMT Pension Plan

On July 1, 2015, the Volunteer Firemen's and Emergency Medical Technicians Pension Plans were consolidated into the Volunteer Firefighter & EMT Pension Plan which provides retirement benefits to volunteer firemen and emergency medical technicians who elect to participate in the Plan. Benefits of the Plan are funded by employee contributions (\$15.00 per month), the fire insurance tax collected, and earnings on investments.

The Plan net position held in trust for benefits at December 31, 2017 totaled \$81.9 million, an increase of \$7.8 million from 2016. For the calendar year 2017, employee contributions totaled \$417,832, a decrease from 2016 of \$3,090. The Plan recognized a net investment gain of \$10.0 million for the year 2017 compared with net investment gain of \$4.9 million a year earlier.

The tax collected on fire insurance premiums totaled \$3.3 million in 2017 compared to \$3.2 million received in 2016. 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 2017, benefits totaled \$5.8 million, an increase from \$5.5 million a year earlier. The increase in benefits is due to the fact that there were more retirees being paid than in 2016. For 2017, the cost of administering the Plan's benefits totaled \$88,835 compared to \$88,904 a year earlier.

Refunds are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be refunded. Refunds to members terminating service totaled \$33,242 in 2017, a decrease from \$35,162 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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability increased from 69.99% on January 1, 2017 to 74.11% on January 1, 2018. The net pension liability was \$28.6 million as of January 1, 2018. This is a decrease of \$3.1 million from the prior year.

Volunteer Firefighter & EMT Pension Plan		
Net Position		
Year Ended December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$25,327	\$35,761
Investments: Fair Value	75,689	64,847
Securities Lending Collateral	5,172	4,066
Capital Assets/Net Depr.	39	42
Total Assets	106,227	104,716
Liabilities:		
Securities Lending Payable	5,172	4,066
Benefits & Refunds Payable	-	1
Securities Purchased	474	258
Other Payables	18,697	26,353
Total Liabilities	24,343	30,678
Total Net Position	\$81,884	\$74,038

Volunteer Firefighter & EMT Pension Plan		
Change in Net Position		
Year Ended December 31, (Dollars in Thousands)		
Additions:	2017	2016
Employee Contributions	\$418	\$421
Investment Income (loss)	10,036	4,940
Other Income	3,298	3,237
Total Additions	13,752	8,598
Deductions:		
Benefits Paid	5,781	5,507
Refunds	33	35
Admin. Expenses	89	81
Depreciation Expense	3	3
Total Deductions	5,906	5,626
Change in Net Position	7,846	2,972
Total Beginning Net Position	74,038	71,066
Total Ending Net Position	\$81,884	\$74,038

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 firemen 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, 2017 totaled \$116.7 million, a decrease of \$173,682 from 2016. Additions to the Plan net position held in trust for benefits include investment income. This Plan is a closed plan and the Board suspended contributions in April 1997. The Plan recognized a net investment gain of \$15.4 million for the year 2017 compared with a net investment loss of \$8.1 million a year earlier. This is due to the equity market.

Deductions from the Plan net position held in trust for benefits resulted primarily from retirement and beneficiary benefits and administrative expenses. For 2017, benefits totaled \$15.4 million, an increase from \$15.0 million a year earlier. The benefits continue to increase due to a 3% COLA in the current year. For 2017, the costs of administering the Plan's benefits totaled \$108,772 compared to \$110,274 a year ago.

Refunds are the result of employees leaving public service and requesting the money they contributed into the system to be refunded.

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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability decreased from 38.91% on January 1, 2017 to 34.28% on January 1, 2018. The net pension liability as a percentage of covered payroll increased from 93,982.30% to 114,602.87% as of January 1, 2017 and 2018, respectively. The net pension liability was \$223.7 million as of January 1, 2018. This is an increase of \$40.3 million from the prior year.

Paid Firemen's Pension Plan A		
Net Position		
Year Ended December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$35,427	\$55,597
Investments: Fair Value	108,665	103,679
Securities Lending Collateral	7,425	6,500
Capital Assets/Net Depr.	85	91
Total Assets	151,602	165,867
Liabilities:		
Securities Lending Payable	7,425	6,500
Securities Purchased	681	413
Other Payables	26,804	42,088
Total Liabilities	34,910	49,001
Total Net Position	\$116,692	\$116,866

Paid Firemen's Pension Plan A		
Change in Net Position		
Year Ended December 31, (Dollars in Thousands)		
Additions:	2017	2016
Investment Income	\$15,352	\$8,160
Total Additions	15,352	8,160
Deductions:		
Benefits	15,411	15,076
Admin. Expenses	109	110
Depreciation Expense	6	6
Total Deductions	15,526	15,192
Change in Net Position	(174)	(7,032)
Total Beginning Net Position	116,866	123,898
Total Ending Net Position	\$116,692	\$116,866

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 firemen who were employed on or after July 1, 1981. Benefits of the Plan are funded by employee and employer contributions and investments income.

The Plan net position held in trust for benefits on December 31, 2017 totaled \$146.0 million, an increase of \$18.5 million from 2016. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income. For the calendar year 2017, member and employer contributions totaled \$5.7 million, a decrease from 2016 of \$0.3 million. The Plan recognized a net investment gain of \$17.8 million for the year 2017 compared with a net investment gain of \$8.4 million a year earlier. This is due to the equity market.

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 2017, benefits totaled \$5.1 million, an increase from \$4.3 million a year earlier. For 2017, the costs of administering the Plan's benefits totaled \$130,930 compared to \$112,132 a year ago.

Refunds are the result of employees leaving public service and requesting the money they contributed into the system to be refunded. Refunds to members terminating service totaled \$120,137 in 2017, an increase from \$71,599 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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability decreased from 80.16% on January 1, 2017 to 77.98% on January 1, 2018. The net pension liability as a percentage of covered payroll increased from 119.59% to 146.17% as of January 1, 2017 and 2018, respectively. The net pension liability was \$471.2 million as of January 1, 2018. This is an increase of \$9.7 million from the prior year.

Paid Firemen's Pension Plan B		
Net Position		
Year Ended December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$44,001	\$60,769
Investments: Fair Value	136,490	112,963
Securities Lending Collateral	9,327	7,082
Capital Assets/Net Depr.	55	61
Total Assets	189,873	180,875
Liabilities:		
Securities Lending Payable	9,327	7,082
Benefits & Refunds Payable	4	-
Securities Purchased	855	450
Other Payables	33,669	45,856
Total Liabilities	43,855	53,388
Total Net Position	\$146,018	\$127,487

Paid Firemen's Pension Plan B		
Change in Net Position		
Year Ended December 31, (Dollars in Thousands)		
Additions:	2017	2016
Employee Contributions	\$2,490	\$2,605
Employer Contributions	3,225	3,371
Investment Income (loss)	17,838	8,477
Other Income	289	254
Total Additions	23,842	14,707
Deductions:		
Benefits Paid	5,055	4,344
Refunds	120	72
Admin. Expenses	131	112
Depreciation Expense	5	6
Total Deductions	5,311	4,534
Change in Net Position	18,531	10,173
Total Beginning Net Position	127,487	117,314
Total Ending Net Position	\$146,018	\$127,487

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, 2017 totaled \$29.3 million, an increase of \$3.9 million from 2016. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income. For the calendar year 2017, employee and employer contributions totaled \$1.6 million, a slight increase from 2016 of \$1.5 million. The Plan recognized a net investment gain of \$3.5 million for the year ending 2017 compared to an investment gain of \$1.7 million a year earlier. This is due to the equity market.

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 2017, benefits totaled \$1,166,424 compared to \$981,321 in 2016.

Refunds are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be refunded.

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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability increased from 101.24% on January 1, 2017 to 101.37% on January 1, 2018. The net pension liability as a percentage of covered payroll decreased from (4.88) % to (6.21)% as of January 1, 2017 and 2018, respectively. The net pension liability was (\$396,770) as of January 1, 2018. This is a increase of \$85,510 from the prior year.

Judicial Pension Plan		
Net Position		
Year Ended December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$9,022	\$12,130
Investments: Fair Value	27,130	22,454
Securities Lending Collateral	1,854	1,408
Capital Assets/Net Depr.	10	12
Total Assets	38,016	36,004
Liabilities:		
Securities Lending Payable	1,854	1,408
Securities Purchased	170	89
Other Payables	6,692	9,115
Total Liabilities	8,716	10,612
Total Net Position	\$29,300	\$25,392

Judicial Pension Plan		
Change in Net Position		
Year Ended December 31, (Dollars in Thousands)		
Additions:	2017	2016
Employee Contributions	\$604	\$589
Employer Contributions	949	926
Investment Income (loss)	3,549	1,679
Total Additions	5,102	3,194
Deductions:		
Benefits Paid	1,167	981
Admin. Expenses	25	22
Depreciation Expense	2	1
Total Deductions	1,194	1,004
Change in Net Position	3,908	2,190
Total Beginning Net Position	25,392	23,202
Total Ending Net Position	\$29,300	\$25,392

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, 2017 totaled \$630.2 million, an increase of \$71.0 million from 2016. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income. For the calendar year 2017, employee and employer contributions totaled \$26.6 million, a decrease from 2015 of \$26.9 million. The Plan recognized a net investment gain of \$77.9 million for the year 2017 compared to an investment gain of \$37.6 million in 2016. This is due to the equity market.

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 2017, benefits totaled \$29.6 million, an increase from \$27.9 million a year earlier. For 2017, the costs of administering the Plan's benefits totaled \$580,221 compared to \$518,486 during 2016.

Refunds are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be refunded. Refunds to members terminating service totaled \$4.0 million in 2017, an increase from \$3.5 million during 2016.

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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability increased from 88.11% on January 1, 2017 to 88.99% on January 1, 2018. The net pension liability as a percentage of covered payroll increased from 48.77% to 56.04% as of January 1, 2017 and 2018, respectively. The net pension liability was \$86.0 million as of January 1, 2018. This is an increase of \$10.6 million from the prior year.

Law Enforcement Pension Plan		
Net Position		
Year Ended December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$187,148	\$265,993
Investments: Fair Value	592,920	497,056
Securities Lending Collateral	40,516	31,163
Capital Assets/Net Depr.	240	291
Total Assets	820,824	794,503
Liabilities:		
Securities Lending Payable	40,516	31,163
Benefits & Refunds Payable	94	288
Securities Purchased	3,715	1,980
Other Payables	146,257	201,788
Total Liabilities	190,582	235,219
Total Net Position	\$630,242	\$559,284

Law Enforcement Pension Plan		
Change in Net Position		
Year Ended December 31, (Dollars in Thousands)		
Additions:	2017	2016
Employee Contributions	\$13,285	\$13,460
Employer Contributions	13,320	13,454
Investment Income (loss)	77,947	37,783
Other Income	701	1,258
Total Additions	105,253	65,955
Deductions:		
Benefits Paid	29,622	27,874
Refunds	4,041	3,491
Admin. Expenses	580	518
Depreciation Expense	52	26
Total Deductions	34,295	31,909
Change in Net Position	70,958	34,046
Total Beginning Net Position	559,284	525,238
Total Ending Net Position	\$630,242	\$559,284

Management's Discussion and Analysis - Analysis of Individual Plans

Air Guard Firefighters Pension Plan

The Air Guard Firefighters 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 Firefighters Pension Plan was separated from the Public Employee Pension Plan on January 1, 2011.

The Plans net position held in trust for benefit on December 31, 2017 was \$7.5 million, an increase of \$1,027,981 from 2016. Additions to the Plan net position held in trust for benefits include employer and employee contributions and investment income/losses. For the calendar year 2017, employee and employer contributions totaled \$523,743, an increase from 2016 of \$456,597. The Plan recognized a net investment gain of \$902,109 for the year 2017 compared to an investment gain of \$431,043 in 2016.

Deductions from the Plan's net position held in trust for benefits included retirement, beneficiary benefits and administrative expenses. For 2017, benefits totaled \$351,120, an increase from \$290,609 for the prior year. For 2017, the costs of administering the Plan's benefits totaled \$6,431 compared to \$5,731 during 2016.

Refunds are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be refunded. The refunds paid to members terminating service for 2017 was \$39,723 compared to \$411,989 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, 2018, the fiduciary net position according to GASB 67 standards as a percentage of total pension liability decreased from 85.50% on January 1, 2017 to 85.03% on January 1, 2018. The net pension liability as a percentage of covered payroll increased from 50.73% to 55.27% as of January 1, 2017 and 2018, respectively. The net pension liability was \$1.1 million as of January 1, 2018. This is an increase of \$346 from the prior year.

Air Guard Firefighters Pension Plan		
Net Position		
Year Ended December 31, (Dollars in Thousands)		
Assets:	2017	2016
Cash & Receivables	\$2,309	\$3,073
Investments: Fair Value	6,895	5,720
Securities Lending Collateral	471	359
Capital Assets/Net Depr.	2	3
Total Assets	9,677	9,155
Liabilities:		
Securities Lending Payable	471	359
Benefits & Refunds Payable	-	16
Securities Purchased	43	23
Other Payables	1,701	2,322
Total Liabilities	2,215	2,720
Total Net Position	\$7,462	\$6,435

Air Guard Firefighters Pension Plan		
Change in Net Position		
Year Ended December 31, (Dollars in Thousands)		
Additions:	2017	2016
Employee Contributions	\$367	\$320
Employer Contributions	156	137
Investment Income (loss)	902	431
Other Income	-	57
Total Additions	1,425	945
Deductions:		
Benefits Paid	351	291
Refunds	40	412
Admin. Expenses	6	6
Depreciation Expense	1	-
Total Deductions	398	709
Change in Net Position	1,027	236
Total Beginning Net Position	6,435	6,199
Total Ending Net Position	\$7,462	\$6,435

Management's Discussion and Analysis - Analysis of Total DB Plans

Total Defined Benefit Pension Plans

Below is the listing of the Total Defined Benefit Pension Plans reflecting the 2017 and 2016 Net Position and Changes in Net Position with the percentage of change.

Total Defined Benefit Pension Plans				
Net Position				
Year Ended December 31, (Dollars in Thousands)				
Assets:	2017	2016	Change	% Change
Cash & Receivables	\$2,513,944	\$3,661,499	\$(1,147,555)	-31.3%
Investments: Fair Value	8,023,634	6,863,711	1,159,923	16.9%
Securities Lending Collateral	548,286	430,320	117,966	27.4%
Capital Assets/Net Depr.	3,998	4,385	(387)	-8.8%
Total Assets	11,089,862	10,959,915	129,947	1.2%
Liabilities:				
Securities Lending Payable	548,286	430,320	117,966	27.4%
Benefits & Refunds Payable	957	1,096	(139)	-12.7%
Securities Purchased	50,271	27,337	22,934	83.9%
Other Payables	1,978,614	2,785,770	(807,156)	-29.0%
Total Liabilities	2,578,128	3,244,523	(666,395)	-20.5%
Total Net Position	\$8,511,734	\$7,715,392	\$796,342	10.3%
Total Defined Benefit Pension Plans				
Change in Net Position				
Year Ended December 31, (Dollars in Thousands)				
Additions:	2017	2016	Change	% Change
Employee Contributions	\$165,600	\$168,485	\$(2,885)	-1.7%
Employer Contributions	168,191	171,024	(2,833)	-1.7%
Investment Income	1,067,126	524,805	542,321	103.3%
Other Income	10,849	11,743	(894)	-7.6%
Total Additions	1,411,766	876,057	535,709	61.2%
Deductions:				
Benefits	584,017	546,951	37,066	6.8%
Refunds	23,399	22,461	938	4.2%
Admin. Expenses	7,620	6,958	662	9.5%
Depreciation Expense	388	361	27	7.5%
Total Deductions	615,424	576,731	38,693	6.7%
Change in Net Position	796,342	299,326	497,016	166.0%
Total Beginning Net Position	7,715,392	7,416,066	299,326	4.0%
Total Ending Net Position	\$8,511,734	\$7,715,392	\$796,342	10.3%

Legislative Changes

Disclosure of Subsequent Events: Legislative Changes

Subsequent to the December 31, 2017 measurement date for this financial report, the Wyoming Legislature convened for their scheduled 2018 session. During this session the Legislature approved the WRS budget for the next biennium (1 July 2018 through 30 June 2020) and in addition passed two bills that materially impacted WRS.

House Bill 0109 (House Enrolled Act 65) increases future contributions in the Public Employee Pension Plan. The bill increases the employee contribution by 25 basis points from 8.25% to 8.50%, and increases the employer contribution by 25 basis points from 8.37% to 8.62% effective 1 September 2018. The bill provides for 3 subsequent years of similar increases effective 1 July 2019, 1 July 2020 and 1 July 2021 resulting in an ultimate increase of 1.00% in employee contributions (8.25% to 9.25%) and a 1.00% increase in employer contributions (8.37% to 8.37%) with a total contribution rate increasing from 16.62% to 18.62% by 1 July 2021. The Retirement Board believes that these contribution increases will improve the financial posture of the Public Employee Pension Fund.

The Legislature also passed House Bill 0110 (House Enrolled Act 10) which impacts member refunds. For new employees initially hired after 1 July 2018, the amount of a member refund is limited to the funds actually contributed by the employee together with accumulated interest and will no longer include portions of the employee contribution that may have been subsidized or “picked up” by the employer. The limitation on refunds expires when the member becomes vested (4 years service in the Public Employee Plan). The plans affected include the Public Employee Plan, Law Enforcement Plan, Warden & Patrol Plan, Judicial Plan, Paid Firefighter B Plan and the Air Guard Firefighter Plan. The financial impact varies according to whether employers subsidize the employee contribution or not and the relative experience of non-vested member refunds in each plan. The Retirement Board believes that this limitation on non-vested refunds will be modestly beneficial to the finances of each plan and strengthen the motivation for members to serve long enough to become vested (generally a benefit to both the employee and the employer).

Management's Discussion and Analysis - Analysis of DC 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, 2017 amounted to \$693.4 million compared to \$594.9 million a year earlier. Changes to the Plan net position held in trust for Plan participants include contributions and investment income or loss. The Plan experienced a net increase in fair value of \$79,415,924 for the year 2017 compared to an increase of \$37,123,357 for 2016. For the year 2017, employee contributions and rollovers received totaled \$45.4 million compared to \$42.4 million for 2016. 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 2017, distributions totaled \$34.4 million compared to \$30.8 million in distributions paid out in 2016.

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 \$871,361 compared to \$801,651 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 \$1,039,304 in 2017, compared to \$1,044,650 in 2016.

Management's Discussion and Analysis - Analysis of DC Plan

Deferred Compensation Plan				
Net Position				
Year Ended December 31, (Dollars in Thousands)				
Assets:	2017	2016	Change	% Change
Total Assets	683,446	594,883	88,563	14.9%
Liabilities:				
Total Liabilities	35	(42)	(7)	-16.7%
Total Net Position	\$683,411	\$594,925	\$88,570	14.9%

Deferred Compensation Plan				
Change in Net Position				
Year Ended December 31, (Dollars in Thousands)				
Additions:	2017	2016	Change	% Change
Contributions & Rollovers	\$45,366	\$42,431	\$2,935	6.9%
Administrative Revenue		99	99	100.0%
Investment Income	78,394	36,980	41,414	112.0%
Total Additions	123,760	79,510	44,250	55.7%
Deductions:				
Benefits	34,399	30,786	3,613	11.7%
Admin. Expenses	875	802	73	9.1%
Total Deductions	35,274	31,588	3,686	11.7%
Change in Net Position	88,486	47,922	40,564	84.6%
Total Beginning Net Position	594,925	547,003	47,922	8.8%
Total Ending Net Position	\$683,411	\$594,925	\$88,486	14.9%

Basic Financial Statements

WYOMING RETIREMENT SYSTEM				
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION - PENSION (AND OTHER EMPLOYEE BENEFIT) FUNDS				
December 31, 2017				
	Public Employee Pension Plan	State Patrol, Game & Fish Warden, and Criminal Investigator Pension Plan	Volunteer Firefighter & EMT Pension Plan	Paid Firemen's Pension Plan A
Assets				
Cash and cash equivalents:				
Cash with State Treasurer	\$8,195,742	\$1,100,680	\$812,526	\$1,851,900
Domestic liquidity - outside banks	408,460,437	7,823,808	4,452,914	6,392,942
	416,656,179	8,924,488	5,265,440	8,244,842
Receivables:				
Insurance premium tax	-	-	1,100,000	-
Employee contributions	7,519,751	-	29,266	-
Employer contributions	7,636,163	11	-	-
Securities sold	32,664,266	630,945	356,096	511,239
Accrued interest and dividends	15,048,506	288,703	164,752	237,390
Currency contract receivable	1,688,898,064	32,349,800	18,411,865	26,433,472
Other	93,248	-	-	-
Rebate and fee income receivable	-	-	-	-
	1,751,859,998	33,269,459	20,061,979	27,182,101
Investments, at fair value:				
Fixed Income	1,212,961,370	23,233,526	13,223,344	18,984,438
Equities	3,651,097,775	69,934,524	39,803,182	57,144,473
Private Markets	868,408,278	16,633,824	9,467,129	13,591,730
Marketable Alternatives	1,210,391,069	23,184,294	13,195,324	18,944,209
Security lending collateral	474,432,107	9,087,454	5,172,118	7,425,485
Investment contracts	-	-	-	-
Self Directed Brokerage Investments	-	-	-	-
	7,417,290,599	142,073,622	80,861,097	116,090,335
Capital assets, at cost, net of accumulated depreciation	3,502,279	64,663	38,718	85,378
Total Assets:	9,589,309,055	184,332,232	106,227,234	151,602,656
Liabilities				
Payables:				
Benefits and refunds payable	858,584	-	-	-
Securities purchased	43,499,973	833,215	474,224	680,832
Administrative and consulting fees payable	14,884,620	295,796	195,379	241,823
Currency contract payable	1,697,107,759	32,507,051	18,501,364	26,561,964
Securities lending collateral	474,432,107	9,087,454	5,172,118	7,425,485
Total Liabilities:	2,230,783,043	42,723,516	24,343,085	34,910,104
Net Position held in trust for pension benefits	\$7,358,526,012	\$141,608,716	\$81,884,149	\$116,692,552

See Notes to Financial Statements.

Basic Financial Statements

WYOMING RETIREMENT SYSTEM

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

December 31, 2017

Paid Fireman's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan	Total	Deferred Compensation 457 Plan	Total Pension Trust Plans
\$1,433,430	\$639,340	\$2,405,453	\$178,760	\$16,617,831	\$173,574	\$16,791,405
8,029,945	1,596,133	34,882,544	405,642	472,044,365	14,229,292	486,273,657
9,463,375	2,235,473	37,287,997	584,402	488,662,196	14,402,866	503,065,062
-	-	-	-	1,100,000	-	1,100,000
172,492	-	766,751	-	8,488,260	331,464	8,819,724
223,894	-	767,170	-	8,627,238	-	8,627,238
642,148	127,642	2,789,530	32,439	37,754,305	-	37,754,305
296,540	59,246	1,284,658	15,066	17,394,861	-	17,394,861
33,202,133	6,599,673	144,231,989	1,677,244	1,951,804,240	-	1,951,804,240
-	-	19,474	-	112,722	-	112,722
-	-	-	-	-	1,578,752	1,578,752
34,537,207	6,786,561	149,859,572	1,724,749	2,025,281,626	1,910,216	2,027,191,842
23,845,669	4,739,865	103,586,969	1,204,592	1,401,779,773	249,857,142	1,651,636,915
71,777,117	14,267,322	311,803,955	3,625,904	4,219,454,252	389,665,394	4,609,119,646
17,072,082	3,393,462	74,162,116	862,416	1,003,591,037	25,607,042	1,029,198,079
23,795,140	4,729,821	103,367,465	1,202,039	1,398,809,361	-	1,398,809,361
9,326,885	1,853,929	40,516,528	471,158	548,285,664	-	548,285,664
-	-	-	-	-	22,929	22,929
-	-	-	-	-	1,980,258	1,980,258
145,816,893	28,984,399	633,437,033	7,366,109	8,571,920,087	667,132,765	9,239,052,852
55,289	9,525	239,630	2,235	3,997,717	-	3,997,717
189,872,764	38,015,958	820,824,232	9,677,495	11,089,861,626	683,445,847	11,773,307,473
4,414	-	93,664	-	956,662	-	956,662
855,168	169,984	3,714,900	43,200	50,271,496	-	50,271,496
304,921	60,368	1,323,923	15,343	17,322,173	34,898	17,357,071
33,363,528	6,631,754	144,933,098	1,685,397	1,961,291,915	-	1,961,291,915
9,326,885	1,853,929	40,516,528	471,158	548,285,664	-	548,285,664
43,854,916	8,716,035	190,582,113	2,215,098	2,578,127,910	34,898	2,578,162,808
\$146,017,848	\$29,299,923	\$630,242,119	\$7,462,397	\$8,511,733,716	\$683,410,949	\$9,195,144,665

Basic Financial Statements

WYOMING RETIREMENT SYSTEM				
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION - PENSION (AND OTHER EMPLOYEE BENEFIT) FUNDS				
December 31, 2017				
	Public Employee Pension Plan	State Patrol, Game & Fish Warden, and Criminal In- vestigator Pension Plan	Volunteer Firefighter & EMT Pension Plan	Paid Firemen's Pension Plan A
Additions				
Contributions:				
Employee	\$145,007,950	\$3,428,767	\$417,832	\$-
Employer	147,037,307	3,503,125	-	-
Other	6,453,663	106,446	3,298,753	-
Administrative Revenue	-	-	-	-
	298,498,920	7,038,338	3,716,585	\$-
Investment Income:				
From Investing Activities:				
Net appreciation(depreciation) in fair value of investments	857,540,444	16,348,095	9,298,470	14,203,144
Interest and dividends	129,134,773	2,475,020	1,417,957	2,160,013
Total investing activity:	986,675,217	18,823,115	10,716,427	16,363,157
Investing activity expenses:				
Investment advisor or contractor fees	(64,632,088)	(1,234,877)	(700,542)	(1,041,267)
Net income/(loss) from investing activities:	922,043,129	17,588,238	10,015,885	15,321,890
Securities lending activities:				
Securities lending gross income	6,234,558	118,932	67,537	101,281
Securities lending expenses:				
Broker rebates	(4,076,266)	(77,772)	(44,166)	(65,879)
Agent fees	(323,333)	(6,166)	(3,501)	(5,304)
Total securities lending expenses:	(4,399,599)	(83,938)	(47,667)	(71,183)
Net income from securities lending activities: (Note 3)	1,834,959	34,994	19,870	30,098
Total investment income/(loss)	923,878,088	17,623,232	10,035,755	15,351,988
Total additions(deletions)	1,222,377,008	24,661,570	13,752,340	15,351,988
Deductions				
Benefits paid / Distributions	516,837,260	9,795,108	5,780,647	15,410,878
Refunds	18,654,997	509,361	33,242	-
Administrative expenses	6,533,524	124,857	70,625	108,772
Administrative expenses: Fund Specific	17,585	4,135	18,210	-
Depreciation Expense	312,335	5,896	3,453	6,020
Total deductions:	542,355,701	10,439,357	5,906,177	15,525,670
Net increase/(decrease) in Net Position	680,021,307	14,222,213	7,846,163	(173,682)
Net position held in trust for pension benefits:				
Beginning of year	6,678,504,705	127,386,503	74,037,986	116,866,234
End of year	\$7,358,526,012	\$141,608,716	\$81,884,149	\$116,692,552

See Notes to Financial Statements.

Basic Financial Statements

WYOMING RETIREMENT SYSTEM						
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION - PENSION (AND OTHER EMPLOYEE BENEFIT) FUNDS						
December 31, 2017						
Paid Fireman's Pension Plan B	Judicial Pension Plan	Law Enforcement Pension Plan	Air Guard Firefighter Pension Plan	Total	Deferred Compensation 457 Plan	Total Pension Trust Plans
\$2,490,435	\$603,602	\$13,284,543	\$367,480	\$165,600,609	\$45,366,141	\$210,966,750
3,224,560	949,263	13,320,352	156,263	168,190,870	-	168,190,870
288,852	37	701,006	5	10,848,762	-	10,848,762
-	-	-	-	-	-	-
6,003,847	1,552,902	27,305,901	523,748	344,640,241	45,366,141	390,006,382
16,545,581	3,288,808	72,342,850	835,844	990,403,236	79,415,924	1,069,819,160
2,515,379	503,742	10,931,623	128,014	149,266,521	17,439	149,283,960
19,060,960	3,792,550	83,274,473	963,858	1,139,669,757	79,433,363	1,219,103,120
(1,258,122)	(250,080)	(5,482,843)	(63,542)	(74,663,361)	(1,039,304)	(75,702,665)
17,802,838	3,542,470	77,791,630	900,316	1,065,006,396	78,394,059	1,143,400,455
120,969	24,045	527,592	6,111	7,201,025	-	7,201,025
(79,216)	(15,746)	(345,263)	(4,002)	(4,708,310)	-	-
(6,255)	(1,243)	(27,315)	(316)	(373,433)	-	(373,433)
(85,471)	(16,989)	(372,578)	(4,318)	(5,081,743)	-	(373,433)
35,498	7,056	155,014	1,793	2,119,282	-	2,119,282
17,838,336	3,549,526	77,946,644	902,109	1,067,125,678	78,394,059	1,145,519,737
23,842,183	5,102,428	105,252,545	1,425,857	1,411,765,919	123,760,200	1,535,526,119
5,054,595	1,166,424	29,621,411	351,120	584,017,443	34,398,895	618,416,338
120,137	-	4,041,082	39,723	23,398,542	-	23,398,542
127,460	25,315	547,935	6,431	7,544,919	875,251	8,420,170
3,470	-	32,286	-	75,686	-	75,686
5,700	2,313	51,644	602	387,963	-	387,963
5,311,362	1,194,052	34,294,358	397,876	615,424,553	35,274,146	650,698,699
18,530,821	3,908,376	70,958,187	1,027,981	796,341,366	88,486,054	884,827,420
127,487,027	25,391,547	559,283,932	6,434,416	7,715,392,350	594,924,895	8,310,317,245
\$146,017,848	\$29,299,923	\$630,242,119	\$7,462,397	\$8,511,733,716	\$683,410,949	\$9,195,144,665

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 board members of WRS 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 & EMT Pension Plan
- Paid Firemen's Pension Plan A
- Paid Firemen's Pension Plan B
- Judicial Pension Plan
- Law Enforcement Pension Plan
- Air Guard Firefighters 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 co-mingled 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 balance sheet 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.

Notes to the Basic Financial Statements

Capital Assets

Capital assets, which include property, plant and equipment, and infrastructure assets are reported in the financial statements (Statement of Net Position). Capital assets are stated at cost. The Wyoming Retirement System currently does not capitalize interest costs incurred during construction.

- The Wyoming Retirement System capitalized all building, land, 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:

Asset Type	Estimated Life	Capitalization Threshold
Buildings	5-40 years	\$50,000
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 for each plan administered by WRS are paid proportionately based on total proportionate share of the total fiduciary net position for each plan per prior month.

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, 2017, WRS's Employer membership consisted of the following:

Employer Membership	
State Agencies	98
Public Schools	51
Universities & Community Colleges	8
Counties	22
Municipalities	82
Other Special Districts	218
Volunteer Firefighter & EMT	122
Judicial	1
Law Enforcement	83
Paid Firemen	18
Air Guard Firefighters	1
Totals:	704

Notes to the Basic Financial Statements

Following are descriptions of the term 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 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
Current Employees:								
Vested	23,850	202	1,513	2	292	35	1,808	20
Non-vested	11,163	102	805	-	71	12	853	18
Total Current Employees:	35,013	304	2,318	2	363	47	2,661	38
Inactive employees entitled to benefits but not yet receiving them								
	6,591	16	337	-	39	-	345	3
Total active or vested	41,604	320	2,655	2	402	47	3,006	41
Inactive non vested non retired/non vested members								
	23,281	48	1,485	1	25	-	942	2
Total Active/ Inactive Members	64,885	356	4,140	3	427	47	3,948	43
Retirees and beneficiaries of deceased retirees currently receiving benefits								
	26,808	330	1,433	281	128	22	1,202	10
Total all members	91,693	686	5,573	284	555	69	5,150	53

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.

The Plan statutorily requires 16.62% of the participant's salary to be contributed to the Plan. Contributions consist of 8.25% of the participant's salary as employee contributions and 8.37% 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. 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 or more 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 on the bases that 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. Any cost of living adjustment provided to retirees must be granted by the State Legislature. In addition a cost of living adjustment will not be approved by the legislature unless the plan is 100% funded

Notes to the Basic Financial Statements

after the COLA is awarded.

Employees terminating prior to normal retirement can elect to withdraw all employee contributions plus 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 and 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 and 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 plus 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 are six years.

Volunteer Firefighter & EMT Pension Plan

The Volunteer Firefighter & EMT Pension Plan is a cost sharing multiple employer defined benefit, contributory retirement plan covering volunteer firefighters and volunteer emergency medical technicians who elect to participate in the Plan. Participants are statutorily required to contribute \$15.00 monthly to the Plan, although such contributions may be fully or partially paid by political subdivisions on behalf of participants, if approved by the governing board. In addition, the State pays into the Plan 70% 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 plus 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). The new plan features revised contribution and benefit provisions and governance by one board instead of two. It provides a modest benefit increase to retired volunteers whose benefit structure had remained static for some time. It also provided a long-term funding source to stabilize the finances of Volunteer EMT plan, while establishing consistent provisions for both firefighter and EMT volunteers.

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 firemen 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 have been suspended as the Plan had been determined to be actuarially over-funded. This plan is being reviewed to determine the appropriate measures to take to ensure this plan is adequately funded, as it is a closed plan.

The Plan statutorily provides retirement, disability and death benefits according to a percentage of a fireman 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%. In the event the current actuarial valuation indicates the fair value of assets is greater than one hundred fifteen percent (115%) of the actuarial value of liabilities, the Board may increase the benefit by an amount determined affordable by the actuary but not greater than five percent (5%) of the benefit. Participants may withdraw from the Plan at any time and receive refunds of participant contributions without interest.

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 firemen who were employed after July 1, 1981.

The Plan statutorily requires participants to contribute 9.245% of their salary to the Plan and the employer is required to

Notes to the Basic Financial Statements

contribute 12% of each participant's salary.

The Plan provides retirement, disability and death benefits according to predetermined formulas. Any cost of living adjustment provided to retirees is granted 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 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 plus 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.

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. Any cost of living adjustment provided to retirees must be granted 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 plus accumulated interest.

Air Guard Firefighters Pension Plan

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

The Air Guard Firefighters 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 employer contributions and 7.12% as employee 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. Any cost of living adjustment provided to retirees must be granted 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. Employers can elect to cover all or a portion of the employee's contribution at their discretion.

Wyoming Deferred Compensation Plan

The Plan administered by WRS is an IRS Section 457 Deferred Compensation Plan authorized by W.S. 9-3-501 - W.S. 9-3-509. This Plan is intended as a supplemental plan to the defined benefit retirement benefits of WRS for employees of public employers who have adopted the Plan. 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. Employer contributions may be made into the Plan at rates determined by the employers. There are 21,680 open and 14,516 active participants in the Plan from 282 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

Notes to the Basic Financial Statements

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, this 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.

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.

Target Asset Class	Target	Max	Min	2017	W/ Overlay	Physical Securities
Tactical Cash	0.00%	0.00%	5.00%	1.50%	\$127,953,206	\$472,044,365
Fixed Income	20.00%	25.00%	15.00%	23.30%	1,976,639,339	1,401,779,773
Corporate Bonds/Credit					234,269,070	234,269,070
Emerging Markets Debt					86,971,392	86,971,392
Mortgages/ABS					25,717,280	25,717,280
Treasury Inflation Protected Securities (TIPS)					19,388,029	19,388,029
Treasury/Agencies/Governments					1,610,293,567	1,035,434,002
Equity	45.00%	47.50%	37.50%	46.90%	3,988,685,846	4,219,454,253
Domestic					1,765,017,053	1,780,633,893
Emerging Markets					427,720,862	554,564,162
International Developed					1,795,947,931	1,884,256,198
Marketable Alternatives	17.50%	22.50%	12.50%	16.50%	1,398,809,361	1,398,809,361
Absolute Return					611,615,840	611,615,840
Directional Funds					286,836,654	286,836,654
Global Asset Allocation (GAA)					500,356,867	500,356,867
Private Markets	17.50%	24.00%	12.50%	11.80%	1,003,591,036	1,003,591,036
Other Real Assets					350,774,005	350,774,005
Private Debt					255,832,171	255,832,171
Private Equity					157,022,532	157,022,532
Real Estate					239,962,328	239,962,328
Total Investments					8,495,678,788	8,495,678,788
Net Receivables/(Payables)					(4,968,055)	(4,968,055)
Total Assets					\$8,490,710,733	\$8,490,710,733

Note: Numbers may not total exactly due to rounding

Notes to the Basic Financial Statements

The following table shows the System's defined benefit plan investments by type as of December 31, 2017:

Custodial Credit Risk

Custodial 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 \$16,617,831 of deposits held by the State Treasurer. These deposits totaling \$472,044,365 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 market or fair value. At December 31, 2017, the carrying amount of all deposits and the corresponding bank balance totaled approximately \$488.7 million.

Investment securities within the defined benefit plans are exposed to custodial 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 \$3,809.9 million in fund holdings.

Notes to the Basic Financial Statements

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

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 daily rebalance assets.

	<u>Financial Report</u>	<u>Overlay Program</u>	<u>Combined</u>	<u>% AUM</u>	<u>% Category</u>
Tactical Cash					
Total Tactical Cash	472,044,365	(344,091,158)	127,953,206	1.50%	100.00%
Fixed Income					
Corporate Bonds/Credit	234,269,070	-	234,269,070	2.80%	11.90%
Emerging Markets Debt	86,971,392	-	86,971,392	1.00%	4.40%
Mortgages/ABS	25,717,280	-	25,717,280	0.30%	1.30%
Treasury Inflation Protected Securities (TIPS)	19,388,029	-	19,388,029	0.20%	1.00%
Treasury/Agencies/Governments	1,035,434,002	574,859,565	1,610,293,567	19.00%	81.50%
Total Fixed Income	1,401,779,773	574,859,565	1,976,639,339	23.30%	100.00%
Equity					
Domestic	1,780,633,893	(15,616,840)	1,765,017,053	20.80%	44.30%
Emerging Markets	554,564,162	(126,843,300)	427,720,862	5.00%	10.70%
International Developed	1,884,256,198	(88,308,267)	1,795,947,931	21.10%	45.00%
Total Equity	4,219,454,253	(230,768,407)	3,988,685,846	46.90%	100.00%
Marketable Alternatives					
Absolute Return	611,615,840	-	611,615,840	7.20%	43.70%
Directional Funds	286,836,654	-	286,836,654	3.40%	20.50%
Global Asset Allocation (GAA)	500,356,867	-	500,356,867	5.90%	35.80%
Total Marketable Alternatives	1,398,809,361	-	1,398,809,361	16.50%	100.00%
Private Markets					
Other Real Assets	350,774,005	-	350,774,005	4.10%	35.00%
Private Debt	255,832,171	-	255,832,171	3.00%	25.50%
Private Equity	157,022,532	-	157,022,532	1.80%	15.60%
Real Estate	239,962,328	-	239,962,328	2.80%	23.90%
Total Private Markets	1,003,591,036	-	1,003,591,036	11.80%	100.00%
Total Securities & Cash	8,495,678,788	-	8,495,678,788	100.00%	100.00%
Net Receivables/(Payables)					
Total Net Receivables/(Payables)	(4,968,055)	-	(4,968,055)		
Total Assets	8,490,710,733	-	8,490,710,733		

tive way to daily rebalance assets.

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, 2017, the

Notes to the Basic Financial Statements

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.

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 derivative 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.

1. Credit risk – Debt Securities

Fixed income investment grade credits carry an equivalent of a Standard & Poor’s rating of A or better. Managers of accounts holding publicly traded non-Government debt should select and manage them so as 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, 2017 is as follows:

Rating	\$ Amount
AAA	\$922,072,677
AA	89,328,852
A	65,121,889
BBB	83,309,911
BB	65,965,655
B	53,151,973
Below B	6,536,164
N/A	171,150,400
STIF	204,203,650
Total	\$1,660,841,171

Notes to the Basic Financial Statements

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 of no longer than ten years. No specific investment guidelines exist for other debt securities subject to interest rate risk not included in the investment grade portfolio.

At December 31, 2017 the following table shows investments by investment type, amount and the effective weighted duration:

Category	\$ Amount	% Amount	Contribution to Duration
Asset Backed Securities	5,657,904	0.40%	0.002
Collateralized Bonds	801,825	0.10%	-0.002
Commercial Mortgage-Backed	4,890,307	0.30%	0.005
Corporate Bonds	201,374,338	14.30%	0.735
Corporate Convertible Bonds	1,007,566	0.10%	0.007
Government Agencies	101,779,359	7.20%	0.527
Government Bonds	872,278,734	61.90%	4.032
Government Mortgage Backed Securities	128,343,967	9.10%	0.527
Gov't-issued Commercial Mortgage-Backed	1,810,267	0.10%	0.003
Index Linked Government Bonds	20,617,952	1.50%	0.119
Municipal/Provincial Bonds	3,423,059	0.20%	0.02
Non-Government Backed C.M.O.s	12,365,906	0.90%	-0.029
Short Term Bills and Notes	54,572,609	3.90%	0.006
Total	1,408,923,793	100.00%	5.951

Deferred Compensation (457) Plan Cash and Investments

The cash and investments held within the 457 Plan are comprised of the aggregate holdings of the participant's 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, 2017 the fair value of these investments was \$2,716,153,957. 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

Notes to the Basic Financial Statements

either cash or other securities similar to the type on loan. Borrowers are required to provide collateral amounts of 102% of the market value of loaned U.S. securities plus accrued interest and 105% of the market 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 custodial credit risk as they are held in a collateral investment pool. At year-end, the System has no credit risk exposure to borrowers because the amounts the System owes the borrowers exceed the amounts the borrowers owe 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, 2017 was \$2,119,282.

Cash and U.S. Government securities were provided as collateral for the securities lent. At December 31, 2017, the carrying amount and fair value of the securities on loan was approximately \$548,285,664. The underlying collateral for these securities had a market value of approximately \$562,198,295. Collateral of U.S. Government securities represented approximately \$98,775,192 and other non-cash collateral of approximately \$57,978,789 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 custodial 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, 2017, 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, 2017				
Currency	Cash	Investments	Derivatives & Payables/ Receivables	Total
Argentine peso	5,698	1,579,334	370,278	1,955,309
Australian dollar	812,491	64,084,895	(13,759,039)	51,138,347
Brazilian real	341,138	14,391,734	(9,448,750)	5,284,122
British pound sterling	(774,224)	196,900,208	(141,991,336)	54,134,648
Canadian dollar	749,893	31,831,699	(11,004,420)	21,577,172
Chilean peso	854	4,455,410	-	4,456,264
Chinese yuan renminbi	-	-	(14,482,183)	(14,482,183)
Colombian peso	-	-	2,297,366	2,297,366
Czech koruna	-	439,209	7,241	446,450
Danish krone	30,097	14,457,787	(8,654,158)	5,833,726
Egyptian pound	2,798	-	-	2,798
Euro	4,656,424	405,315,566	(290,644,716)	119,327,274
Hong Kong dollar	622,624	48,158,431	(72,871,954)	(24,090,899)
Indian rupee	-	-	2,370,740	2,370,740
Indonesian rupiah	57,616	7,693,314	16,321	7,767,251
Japanese yen	1,616,280	292,467,668	(187,887,744)	106,196,204
Malaysian ringgit	-	3,820,498	-	3,820,498
Mexican peso	562,475	27,432,368	(18,921,697)	9,073,146
New Israeli shekel	21,120	4,333,360	(4,946,029)	(591,548)
New Taiwan dollar	6,090	3,728,547	(39,704,495)	(35,969,858)
New Zealand dollar	22,941	4,794,933	(9,273,214)	(4,455,341)
Norwegian krone	19,048	4,525,934	(7,520,966)	(2,975,984)
Peruvian nuevo sol	-	-	1,110,372	1,110,372
Philippine peso	-	283,663	-	283,663
Polish zloty	-	15,591,179	(4,467,879)	11,123,299
Russian ruble	53,692	832,892	571,441	1,458,025
Singapore dollar	75,306	17,146,201	(19,635,877)	(2,414,370)
South African rand	-	1,131,033	(4,354,396)	(3,223,363)
South Korean won	117,104	17,470,707	(45,375,790)	(27,787,980)
Swedish krona	131,243	27,538,149	(23,599,876)	4,069,515
Swiss franc	42,685	89,029,680	(66,917,281)	22,155,084
Thai baht	-	448,370	(3,512,459)	(3,064,089)
Turkish lira	-	-	1,445,924	1,445,924
TOTAL EX-US	9,173,393	1,299,882,767	(990,784,577)	318,271,583
United States dollar	462,870,972	6,711,190,422	998,377,756	8,172,439,150
TOTAL	472,044,365	8,011,073,190	7,593,178	8,490,710,733

*Excludes commingled/NAV-driven investments which may or may not have underlying foreign currency exposure

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, 2017, classified by instrument in fair value are as follows:

Derivative Instruments - Summary Disclosure					
As of 31 December 2017					
Category	Sub-Category	Currency	Bought/ Sold	Fair Market Value	Notional Value
Futures	Commodity Contracts			-	306,899,920
	Equity Contracts			-	-208,307,894
	Interest Rate Contracts			-	306,037,671
Rights/Warrants	Equity Contracts			21,142	N/A
Swaps	Exchange Cleared Swaps			-27,866	N/A
	Swaps			-42,711	N/A
Forwards	Other Contracts			88,196	N/A
	Foreign Exchange Contracts	Argentine peso	Bought	-12,908	370,278
	Foreign Exchange Contracts	Australian dollar	Bought	1,186,200	42,340,183
	Foreign Exchange Contracts	Australian dollar	Sold	-1,054,881	-65,332,483
	Foreign Exchange Contracts	Brazilian real	Bought	-27,371	6,721,621
	Foreign Exchange Contracts	Brazilian real	Sold	78,780	-16,191,882
	Foreign Exchange Contracts	British pound sterling	Bought	162,843	26,507,469
	Foreign Exchange Contracts	British pound sterling	Sold	-1,817,444	-181,933,880
	Foreign Exchange Contracts	Canadian dollar	Bought	312,617	21,503,348
	Foreign Exchange Contracts	Canadian dollar	Sold	-600,146	-32,733,074
	Foreign Exchange Contracts	Chinese yuan renminbi	Bought	68,367	4,365,037
	Foreign Exchange Contracts	Chinese yuan renminbi	Sold	-298,824	-18,847,220
	Foreign Exchange Contracts	Columbian Peso	Bought	38,327	2,297,366
	Foreign Exchange Contracts	Danish krone	Bought	7,718	511,072
	Foreign Exchange Contracts	Danish krone	Sold	-120,758	-9,865,935
	Foreign Exchange Contracts	Euro	Bought	1,532,274	108,826,144
	Foreign Exchange Contracts	Euro	Sold	-6,847,370	-446,126,144
	Foreign Exchange Contracts	Hong Kong dollar	Bought	-5,404	8,236,283
	Foreign Exchange Contracts	Hong Kong dollar	Sold	91,832	-83,909,743
	Foreign Exchange Contracts	Indian rupee	Bought	68,541	2,370,740
	Foreign Exchange Contracts	Japanese yen	Bought	25,819	87,732,012
	Foreign Exchange Contracts	Japanese yen	Sold	387,323	-304,258,333
	Foreign Exchange Contracts	Mexican peso	Bought	-35,955	1,803,644
	Foreign Exchange Contracts	Mexican peso	Sold	619,903	-20,825,667
	Foreign Exchange Contracts	New Israeli shekel	Bought	7,511	833,463
	Foreign Exchange Contracts	New Israeli shekel	Sold	-110,007	-5,772,514
	Foreign Exchange Contracts	New Taiwan dollar	Sold	-430,466	-39,714,052
	Foreign Exchange Contracts	New Zealand dollar	Bought	193,647	6,533,074
	Foreign Exchange Contracts	New Zealand dollar	Sold	-502,936	-15,835,540
	Foreign Exchange Contracts	Norwegian krone	Bought	14,232	1,620,355

Notes to the Basic Financial Statements

Derivative Instruments - Summary Disclosure

As of 31 December 2017

Category	Sub-Category	Currency	Bought/ Sold	Fair Market Value	Notional Value
	Foreign Exchange Contracts	Norwegian krone	Sold	-156,433	-9,141,321
	Foreign Exchange Contracts	Peruvian Sol	Bought	15,956	1,110,372
	Foreign Exchange Contracts	Polish zloty	Bought	321,893	7,016,649
	Foreign Exchange Contracts	Polish zloty	Sold	-465,599	-11,665,937
	Foreign Exchange Contracts	Russian ruble	Bought	131,422	3,009,437
	Foreign Exchange Contracts	Russian ruble	Sold	-54,370	-2,442,865
	Foreign Exchange Contracts	Singapore dollar	Bought	9,139	907,952
	Foreign Exchange Contracts	Singapore dollar	Sold	-206,652	-22,989,409
	Foreign Exchange Contracts	South African rand	Bought	9,117	391,998
	Foreign Exchange Contracts	South African rand	Sold	-388,980	-4,780,395
	Foreign Exchange Contracts	South Korean won	Bought	89,475	2,985,668
	Foreign Exchange Contracts	South Korean won	Sold	-1,026,594	-48,547,581
	Foreign Exchange Contracts	Swedish krona	Bought	529,176	22,093,419
	Foreign Exchange Contracts	Swedish krona	Sold	-935,403	-49,841,004
	Foreign Exchange Contracts	Swiss franc	Bought	2,225	292,061
	Foreign Exchange Contracts	Swiss franc	Sold	-342,665	-80,544,570
	Foreign Exchange Contracts	Thai Baht	Bought	17	4,944
	Foreign Exchange Contracts	Thai Baht	Sold	14,684	-3,517,403
	Foreign Exchange Contracts	Turkish lira	Bought	26,516	1,445,915
	Foreign Exchange Contracts	United States dollar	Bought	-	1,460,649,944

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.

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

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. Investments' fair value measurements are as follows at December 31, 2017 (in millions).

Debt and equity securities categorized as Level 1 are valued based on prices

Investments As of 31 December 2017	Fair Value Measurements in Millions Using:			
	Total Fair Value	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs
Fixed Income				
Corporate Bonds/Credit	\$224	\$ -	\$224	\$ -
Emerging Markets Debt	87	-	87	-
Mortgages/ABS	26	-	25	-
TIPS	19	-	19	-
Treasury/Agencies/ Governments	1,035	-	1,035	-
Total Fixed Income	1,391	-	1,391	1
Equity				
Domestic	1,566	1,565	-	-
Emerging Markets	58	58	-	-
International Developed	1,173	1,173	-	-
Total Equity	2,797	2,796	-	1
Private Markets				
Other Real Assets	-	-	-	-
Private Debt	-	-	-	-
Private Equity	-	-	-	-
Real Estate	104	104	-	-
Total Private Markets	104	104	-	-
Derivatives				
Forwards	-	-	-	-
Futures	-	-	-	-
FX	(9)	-	(9)	-
Options	-	-	-	-
Rights/Warrants	-	-	-	-
Swaps	1	-	1	-
Swap Liabilities	(1)	-	(1)	-
Total Derivatives	(9)	-	(9)	-
Total	\$4,283	\$2,900	\$1,381	\$1

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

Notes to the Basic Financial Statements

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. Mortgage-backed securities categorized as Level 3 are valued using discounted cash flow techniques. 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.

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, 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.

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 & EMT Pension Plan is based upon a fixed monthly member contribution of \$15.00 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 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, 2017, contributions were made in accordance with statutorily determined contribution requirements.

Investments	Total NAV-Driven
As of 31 December 2017	Value in Millions
Fixed Income	
Corporate Bonds/Credit	\$10
Emerging Markets Debt	-
Mortgages/ABS	-
TIPS	-
Treasury/Agencies/Governments	-
Total Fixed Income	10
Equity	
Domestic	215
Emerging Markets	497
International Developed	711
Total Equity	1423
Marketable Alternatives	
Absolute Return	612
Directional Funds	287
GAA	500
Total Marketable Alternatives	1399
Private Markets	
Other Real Assets	351
Private Debt	256
Private Equity	157
Real Estate	136
Total Private Markets	900
Total	\$3,732

Notes to the Basic Financial Statements

Note 6. Commitments

At December 31, 2017, WRS was committed to the future purchase of investments at an aggregate cost of \$1,327,153,710. As of December 31, 2017, WRS has funded \$1,658,979,775 in commitments, cumulatively.

Sub-Asset Class	Unfunded Commitments (\$)
Other Real Assets	337,052,531
Private Debt	95,629,295
Private Equity	874,633,316
Real-Estate	19,838,568
Total	1,327,153,710

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 custodial 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.

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.

Notes to the Basic Financial Statements

Note 9. Capital Assets

The following is a summary of changes in capital assets

	Balance 31-Dec-16	Additions	Deletions	Transfers	Balance 31-Dec-17
Leasehold Improvements	\$106,205	\$ -	\$ -	\$ -	\$106,205
Software	5,086,740	-	-	-	5,086,740
	5,192,945	-	-	-	5,192,945
Less accumulated depreciation	807,265	-	387,963	-	1,195,228
Capital asset, net	\$4,385,680	\$ -	\$387,963	\$ -	\$3,997,717

All disposals of Government Operations is completed at the state level. WRS is a division of the State.

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, 2017, is based on the results of an actuarial valuation date of January 1, 2018, and rolled-forward using generally accepted actuarial procedures.

The net pension liability (i.e., the retirement system's liability determined in accordance with GASB 67 less the fiduciary net position) as of December 31, 2017, is as shown below.

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 Pension Plan:					
9,637,866,524	7,358,526,012	2,279,340,512	76.35%	1,776,377,586	128.31%
State Patrol, Game and Fish Warden and Criminal Investigator Pension Plan:					
182,632,958	141,608,716	41,024,242	77.54%	23,641,495	173.53%
Volunteer Firefighter & EMT Pension Plan:					
110,489,448	81,884,149	28,605,299	74.11%	n/a	n/a
Paid Firemen's Pension Plan A:					
340,421,415	116,692,552	223,728,863	34.28%	195,221	114602.87%
Paid Firemen's Pension Plan B:					
187,252,665	146,017,848	41,234,817	77.98%	28,209,686	146.17%
Judicial Pension Plan:					
28,903,154	29,299,924	(396,770)	101.37%	6,386,001	-6.21%
Law Enforcement Pension Plan:					
716,286,547	630,242,119	86,044,428	87.99%	153,547,078	56.04%
Air Guard Firefighters Pension Plan:					
8,554,375	7,462,397	1,091,978	87.23%	1,975,631	55.27%

n/a - not applicable

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

Notes to the Basic Financial Statements

GASB 67 - Actuarial Methods and Assumptions

January 1, 2017

Assumptions and Methods	Public Employees Pension Plan	State Patrol Game & Fish Warden and Criminal Investigators Pension Plan	Volunteer Firefighter and EMT Pension Plan	Paid Firemen's Pension Plan A	Paid Firemen's Pension Plan B	Judicial Pension Plan	Law	Air Guard Firefighter Pension Plan
Valuation date	1/1/2017	1/1/2017	1/1/2017	1/1/2017	1/1/2017	1/1/2017	1/1/2017	1/1/2017
Actuarial cost method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization method	Level percent open	Level percent open	Level Dollar open	Level Dollar open	Level percent open	Level percent open	Level percent open	Level percent open
Remaining amortization period	30	30	30	10	30	15	30	30
Asset valuation method	5-year	5-year	5-year	5-year	5-year	5-year	5-year	5-year
Actual assumptions:								
Investment net rate of return	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%
Projected salary increases includes inflation	4.25% to 6.00%	4.25% to 8.00%	n/a	4.25%	4.25% to 7.00%	3.75%	4.25% to 8.00%	4.25% to 6.00%
Assumed inflation rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Mortality	*	*	*	*	*	*	*	*
* Mortality:								
Healthy Pre-Retirement Mortality:								
RP-2000 Combined Mortality Table, fully generational, projected with Scale BB								
Males: Set back 5 years with a multiplier of 104%								
Females: Set back 4 years with a multiplier of 90%								
Healthy Post-Retirement Mortality:								
RP-2000 Combined Mortality Table, fully generational, projected with Scale BB								
Males: Set back 1 year with a multiplier of 104%								
Females: Set back 0 years with a multiplier of 90%								
Disabled Mortality:								
RP-2000 Combined Mortality Table, fully generational, projected with Scale BB								
Males: Set forward 5 years with a multiplier of 120%								
Females: Set forward 5 years with a multiplier of 120%								
Note: Significant assumptions are based on an experience study that covered a five-year period ending December 31, 2016.								

Notes to the Basic Financial Statements

Discount Rate

The discount rate used to measure the total pension liability for all plans was 7.00%. 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.

	Single Discount Rate	Long-Term Expected Rate of Return	Long-Term Municipal Bond Rate*	Last year ending December 31 in the 2016 to 2115 projection period for which projected benefit payments are fully funded
Public Employee Pension Plan:	7.00%	7.00%	3.31%	2116
State Patrol, Game and Fish Warden and Criminal Investigator Pension Plan:	7.00%	7.00%	3.31%	2116
Volunteer Firefighter & EMT Pension Plan:	7.00%	7.00%	3.31%	2116
Paid Firemen's Pension Plan A:	3.75%	7.00%	3.31%	2026
Paid Firemen's Pension Plan B:	5.65%	7.00%	3.31%	2056
Judicial Pension Plan:	7.00%	7.00%	3.31%	2116
Law Enforcement Pension Plan:	7.00%	7.00%	3.31%	2116
Air Guard Firefighters Pension Plan:	7.00%	7.00%	3.31%	2116

*Source: "State & local bonds" rate from Federal Reserve statistical release (H.15) as of December 31, 2017. The statistical release describes the rate as "Bond Buyer Index, general obligation, 20 years to maturity, mixed quality." In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investor's Aa2 rating and Standard & Poor's Corp.'s AA.

Notes to the Basic Financial Statements

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 calculated using the discount rate as stated, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00% lower or 1.00% higher than the current rate.

	1% Decrease	Assumption	1% Increase
Current Single Discount Rate	6.00%	7.00%	8.00%
Public Employee Pension Plan:	\$3,444,971,184	\$2,279,340,512	\$1,307,221,262
State Patrol, Game & Gish Warden and Criminal Investigator Pension Plan:	64,147,032	41,024,121	21,564,030
Volunteer Firefighter & EMT Pension Plan:	42,423,750	28,605,299	17,200,465
Judicial Pension Plan:	2,735,274	(396,770)	(3,095,523)
Law Enforcement Pension Plan:	184,677,388	86,044,428	5,749,157
Air Guard Firefighter Pension Plan:	2,265,406	1,091,978	127,296
	1% Decrease	Assumption	1% Increase
	2.75%	3.75%	4.75%
Paid Firemen's Pension Plan A:	276,354,034	223,728,863	181,668,840
	1% Decrease	Assumption	1% Increase
	4.65%	5.65%	6.65%
Paid Firemen's Pension Plan B:	70,466,962	41,234,817	17,275,791

The following table represents the investment return for the year ended December 31, 2017. The plans assume a long term investment rate of return of 7.00%. The long term rate of return is determined through a 4.75% 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.

	Annual money-weighted rate of return, net of expenses for the fiscal year ended December 31, 2017	Expected Rate of Return net of investment expenses
Public Employee Pension Plan:	14.30%	4.75%
State Patrol, Game and Fish Warden and Criminal Investigator Pension Plan:	14.30%	4.75%
Volunteer Firefighter & EMT Pension Plan:	14.30%	4.75%
Paid Firemen's Pension Plan A:	14.30%	4.75%
Paid Firemen's Pension Plan B:	14.30%	4.75%
Judicial Pension Plan:	14.30%	4.75%
Law Enforcement Pension Plan:	14.30%	4.75%
Air Guard Firefighters Pension Plan:	14.30%	4.75%

Notes to the Basic Financial Statements

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 time frame.

Core Plus	Target Allocation	Arithmetic Real Return	Arithmetic Nominal Return	Geometric Real Return	Geometric Nominal Return
Tactical Cash	0.00%	0.40%	2.90%	0.40%	2.90%
Fixed Income	20.00%	1.80%	4.30%	1.20%	3.70%
Core Plus	7.50%	1.20%	3.70%	1.10%	3.60%
US Government	10.00%	1.80%	4.30%	1.00%	3.50%
Opportunistic Credit	2.50%	3.40%	5.90%	2.70%	5.20%
Equity	45.00%	6.90%	9.40%	5.00%	7.50%
US Equity	22.50%	6.40%	8.90%	4.80%	7.30%
Developed International	17.50%	6.60%	9.10%	4.60%	7.10%
Emerging Markets	5.00%	10.00%	12.50%	6.90%	9.40%
Marketable Alternatives	17.50%	3.30%	5.80%	2.80%	5.30%
Opportunistic/Directional	0.0-10.0%	3.80%	6.30%	3.40%	5.90%
Absolute Return	5.0-15.0%	3.00%	5.50%	2.70%	5.20%
Enhanced Fixed Income	0.0-10.0%	2.20%	4.70%	1.70%	4.20%
Global Asset Allocation	2.5-12.0%	2.90%	5.40%	2.10%	4.60%
Private Markets	17.50%	7.10%	9.60%	5.10%	7.60%
Private Real Assets	0.0-7.5%	7.20%	9.70%	5.30%	7.80%
Real Estate	2.5-7.5%	3.70%	6.20%	3.00%	5.50%
Private Debt	2.5-7.5%	6.00%	8.50%	4.10%	6.60%
Private Equity	2.5-12.5%	9.30%	11.80%	6.40%	8.90%
Total	100.00%	5.27%	7.77%	3.85%	6.35%

Schedule of Investment Returns

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected arithmetic 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, 2017, these best estimates are summarized in the following table:

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

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,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$201,824,345	\$219,893,113	\$217,488,957	\$213,059,299
Interest on the Total Pension Liability	641,429,003	664,368,366	638,943,600	614,848,444
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	(56,701,091)	(43,790,701)	(66,191,620)	-
Assumption Changes	290,801,601.00	-	-	-
Benefit Payments	(516,837,260)	(483,482,106)	(450,589,769)	(418,274,815)
Refunds	(18,654,997)	(18,127,974)	(19,365,045)	(17,821,799)
Net Change in Total Pension Liability	\$541,861,601	\$338,860,698	\$320,286,123	\$391,811,129
Total Pension Liability - Beginning	\$9,096,004,923	\$8,757,144,225	\$8,436,858,102	\$8,045,046,973
Total Pension Liability - Ending (a)	\$9,637,866,524	\$9,096,004,923	\$8,757,144,225	\$8,436,858,102
Plan Fiduciary Net Position				
Employer Contributions	\$148,746,669	\$151,488,715	\$144,622,373	\$127,929,930
Employee Contributions	149,752,251	152,422,538	153,529,134	137,144,565
Pension Plan Net Investment Income	923,878,089	454,712,993	(67,155,642)	318,184,952
Benefit Payments	(516,837,260)	(483,482,106)	(450,589,769)	(418,274,815)
Refunds	(18,654,997)	(18,127,974)	(19,365,045)	(17,821,799)
Pension Plan Administrative Expense	(6,551,109)	(5,993,529)	(5,097,818)	(5,182,863)
Other	(312,336)	(312,336)	(312,704)	5,539,339
Net Change in Plan Fiduciary Net Position	\$680,021,307	\$250,708,301	(\$244,369,471)	\$147,519,309
Plan Fiduciary Net Position - Beginning	\$6,678,504,705	\$6,427,796,404	\$6,672,165,875	\$6,524,646,566
Plan Fiduciary Net Position - Ending (b)	\$7,358,526,012	\$6,678,504,705	\$6,427,796,404	\$6,672,165,875
Net Pension Liability - Ending (a) - (b)	\$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	76.35%	73.42%	73.40%	79.08%
Covered Payroll	\$1,776,377,586	\$1,782,905,215	\$1,744,073,882	\$1,709,412,443
Net Pension Liability as a Percentage of Covered Payroll	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,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$4,764,423	\$7,631,559	\$7,511,738	\$5,276,236
Interest on the Total Pension Liability	12,129,167	12,213,078	11,513,094	11,490,234
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	(4,722,830)	62,315	(1,821,706)	-
Assumption Changes	(22,946,444.00)	(5,188,326.00)	32,535,213.00	-
Benefit Payments	(9,795,108)	(9,396,540)	(8,926,088)	(8,364,762)
Refunds	(509,361)	(323,328)	(120,906)	(368,093)
Net Change in Total Pension Liability	(\$21,080,153)	\$4,998,758	\$40,691,345	\$8,033,615
Total Pension Liability - Beginning	\$203,713,111	\$198,714,353	\$158,023,008	\$149,989,393
Total Pension Liability - Ending (a)	\$182,632,958	\$203,713,111	\$198,714,353	\$158,023,008
Plan Fiduciary Net Position				
Employer Contributions	\$3,552,582	\$3,574,065	\$3,355,688	\$3,006,277
Employee Contributions	3,485,756	3,678,081	3,524,286	3,150,559
Pension Plan Net Investment Income	17,623,232	8,622,074	(1,199,475)	5,900,708
Benefit Payments	(9,795,108)	(9,396,540)	(8,926,088)	(8,364,762)
Refunds	(509,361)	(323,328)	(120,906)	(368,093)
Pension Plan Administrative Expense	(128,991)	(114,832)	(95,918)	(96,479)
Other	(5,897)	(5,897)	(5,850)	229,589
Net Change in Plan Fiduciary Net Position	\$14,222,213	\$6,033,623	(\$3,468,263)	\$3,457,799
Plan Fiduciary Net Position - Beginning	\$127,386,503	\$121,352,880	\$124,821,143	\$121,363,344
Plan Fiduciary Net Position - Ending (b)	\$141,608,716	\$127,386,503	\$121,352,880	\$124,821,143
Net Pension Liability - Ending (a) - (b)	\$41,024,242	\$76,326,608	\$77,361,473	\$33,201,865
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	77.54%	62.53%	61.07%	78.99%
Covered Payroll	\$23,641,495	\$23,636,482	\$22,196,930	\$21,817,686
Net Pension Liability as a Percentage of Covered Payroll	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 & EMT Pension Plan				
Fiscal year ending December 31,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$1,412,440	\$1,285,552	\$1,253,883	See Note 3
Interest on the Total Pension Liability	7,372,254	7,761,646	7,520,888	-
Benefit Changes	-	-	21,809,884	-
Difference between Expected and Actual Experience	(3,538,907)	(479,308)	211,035	-
Assumption Changes	5,273,789	-	(472,252)	-
Benefit Payments	(5,780,647)	(5,506,699)	(4,832,911)	-
Refunds	(33,242)	(35,162)	(34,719)	-
Net Change in Total Pension Liability	\$4,705,687	\$3,026,029	\$25,455,808	-
Total Pension Liability - Beginning	\$105,783,760	\$102,757,731	\$77,723,993	-
Total Pension Liability - Ending (a)	\$110,489,447	\$105,783,760	\$102,757,731	-
Plan Fiduciary Net Position				
Employer Contributions	\$3,290,994	\$3,198,930	\$2,238,612	-
Employee Contributions	425,592	459,363	417,406	-
Pension Plan Net Investment Income	10,035,753	4,939,925	(675,297)	-
Benefit Payments	(5,780,647)	(5,506,699)	(4,832,911)	-
Refunds	(33,242)	(35,162)	(34,719)	-
Pension Plan Administrative Expense	(88,835)	(80,904)	(73,412)	-
Other	(3,453)	(3,453)	(3,470)	-
Net Change in Plan Fiduciary Net Position	\$7,846,162	\$2,972,000	(\$2,963,791)	-
Plan Fiduciary Net Position - Beginning	\$74,037,986	\$71,065,986	\$74,029,777	-
Plan Fiduciary Net Position - Ending (b)	\$81,884,148	\$74,037,986	\$71,065,986	-
Net Pension Liability - Ending (a) - (b)	\$28,605,299	\$31,745,774	\$31,691,745	-
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	74.11%	69.99%	69.16%	-
Covered Payroll	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	-

Note 1: "Other" changes to Plan Fiduciary Net Position includes other funding sources and depreciation expenses.

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

Note 3: The Volunteer Firefighter and EMT Retirement System is a new plan with new benefit provisions formed as of July 1, 2015 from the discontinued prior Volunteer Fireman's Pension Plan and the Volunteer EMT Pension Plan. An actuarial valuation of the new plan has not been performed yet and the Total Pension Liability does not exist as of January 1, 2015. The total pension liability shown in this report is based on an estimated valuation performed as of January 1, 2015 rolled forward to a measurement date of December 31, 2015.

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,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$122,812	\$147,314	\$162,541	\$188,951
Interest on the Total Pension Liability	12,582,433	12,906,407	12,910,372	13,337,846
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	1,188,594	(1,825,288)	(2,479,196)	-
Assumption Changes	41,599,453	(5,166,271)	9,056,601	99,327,064
Benefit Payments	(15,410,878)	(15,075,912)	(14,824,715)	(14,581,980)
Refunds	-	-	-	-
Net Change in Total Pension Liability	\$40,082,414	(\$9,013,750)	\$4,825,603	\$98,271,881
Total Pension Liability - Beginning	\$300,339,001	\$309,352,751	\$304,527,148	\$206,255,267
Total Pension Liability - Ending (a)	\$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	15,351,989	8,160,117	(1,107,007)	7,064,066
Benefit Payments	(15,410,878)	(15,075,912)	(14,824,715)	(14,581,980)
Refunds	-	-	-	-
Pension Plan Administrative Expense	(108,773)	(110,274)	(102,903)	(113,705)
Other	(6,020)	(6,019)	(6,559)	(1,701)
Net Change in Plan Fiduciary Net Position	(\$173,682)	(\$7,032,088)	(\$16,041,184)	(\$7,633,320)
Plan Fiduciary Net Position - Beginning	\$116,866,234	\$123,898,322	\$139,939,506	\$147,572,826
Plan Fiduciary Net Position - Ending (b)	\$116,692,552	\$116,866,234	\$123,898,322	\$139,939,506
Net Pension Liability - Ending (a) - (b)	\$223,728,863	\$183,472,767	\$185,454,429	\$164,587,642
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	34.28%	38.91%	40.05%	45.95%
Covered Payroll	\$195,221	\$195,221	\$179,486	\$198,404
Net Pension Liability as a Percentage of Covered Payroll	102,602.87%	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,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$8,912,364	\$7,422,919	\$7,421,040	\$5,367,034
Interest on the Total Pension Liability	9,917,806	9,744,190	8,937,063	8,194,197
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	(2,190,045)	(93,703)	120,064	-
Assumption Changes	16,738,920	(1,498,059)	20,165,038	-
Benefit Payments	(5,054,595)	(4,343,944)	(3,712,240)	(3,090,522)
Refunds	(120,137)	(71,599)	(75,062)	(62,762)
Net Change in Total Pension Liability	\$28,204,313	\$11,159,804	\$32,855,903	\$10,407,947
Total Pension Liability - Beginning	\$159,048,352	\$147,888,548	\$115,032,645	\$104,624,698
Total Pension Liability - Ending (a)	\$187,252,665	\$159,048,352	\$147,888,548	\$115,032,645
Plan Fiduciary Net Position				
Employer Contributions	\$3,230,196	\$3,370,961	\$3,273,668	\$3,184,045
Employee Contributions	2,773,651	2,858,418	2,924,752	2,414,435
Pension Plan Net Investment Income	17,838,337	8,477,077	(1,158,548)	5,303,618
Benefit Payments	(5,054,595)	(4,343,944)	(3,712,240)	(3,090,522)
Refunds	(120,137)	(71,599)	(75,062)	(62,762)
Pension Plan Administrative Expense	(130,931)	(112,132)	(90,438)	(87,431)
Other	(5,700)	(5,700)	(5,444)	264,234
Net Change in Plan Fiduciary Net Position	\$18,530,821	\$10,173,081	\$1,156,688	\$7,925,617
Plan Fiduciary Net Position - Beginning	\$127,487,027	\$117,313,946	\$116,157,258	\$108,231,641
Plan Fiduciary Net Position - Ending (b)	\$146,017,848	\$127,487,027	\$117,313,946	\$116,157,258
Net Pension Liability - Ending (a) - (b)	\$41,234,817	\$31,561,325	\$30,574,602	(\$1,124,613)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability				
	77.98%	80.16%	79.33%	100.98%
Covered Payroll				
	\$28,209,686	\$26,390,481	\$25,986,443	\$24,552,559
Net Pension Liability as a Percentage of Covered Payroll				
	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,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$1,470,668	\$1,263,270	\$1,263,278	\$1,186,595
Interest on the Total Pension Liability	1,880,909	1,793,779	1,659,184	1,539,910
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	(620,955)	(229,282)	(372,108)	-
Assumption Changes	2,258,668	-	-	-
Benefit Payments	(1,166,423)	(981,321)	(931,621)	(775,805)
Refunds	-	-	-	-
Net Change in Total Pension Liability	\$3,822,867	\$1,846,446	\$1,618,733	\$1,950,700
Total Pension Liability - Beginning	\$25,080,287	\$23,233,841	\$21,615,108	\$19,664,408
Total Pension Liability - Ending (a)	\$28,903,154	\$25,080,287	\$23,233,841	\$21,615,108
Plan Fiduciary Net Position				
Employer Contributions	\$949,300	\$925,971	\$920,867	\$916,598
Employee Contributions	603,602	588,791	585,545	582,831
Pension Plan Net Investment Income	3,549,526	1,679,033	(228,304)	1,038,134
Benefit Payments	(1,166,423)	(981,321)	(931,621)	(775,805)
Refunds	-	-	-	-
Pension Plan Administrative Expense	(25,315)	(22,090)	(17,833)	(17,177)
Other	(2,313)	(1,128)	(1,072)	(244)
Net Change in Plan Fiduciary Net Position	\$3,908,377	\$2,189,256	\$327,582	\$1,744,337
Plan Fiduciary Net Position - Beginning	\$25,391,547	\$23,202,291	\$22,874,709	\$21,130,312
Plan Fiduciary Net Position - Ending (b)	\$29,299,924	\$25,391,547	\$23,202,291	\$22,874,709
Net Pension Liability - Ending (a) - (b)	(\$396,770)	(\$311,260)	\$31,550	(\$1,259,601)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability				
	101.37%	101.24%	99.86%	105.83%
Covered Payroll	\$6,386,001	\$6,384,628	\$6,363,028	\$5,989,181
Net Pension Liability / (Asset) as a Percentage of Covered Payroll				
	-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,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$23,241,982	\$23,339,214	\$22,790,835	\$22,432,708
Interest on the Total Pension Liability	47,200,725	45,945,359	43,444,727	40,636,242
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	(6,691,047)	(3,501,453)	1,710,375	-
Assumption Changes	51,421,521	-	-	-
Benefit Payments	(29,621,411)	(27,873,802)	(25,459,574)	(23,209,837)
Refunds	(4,041,082)	(3,491,089)	(4,659,711)	(4,110,605)
Net Change in Total Pension Liability	\$81,510,688	\$34,418,229	\$37,826,652	\$35,748,508
Total Pension Liability - Beginning	\$634,775,859	\$600,357,630	\$562,530,978	\$526,782,470
Total Pension Liability - Ending (a)	\$716,286,547	\$634,775,859	\$600,357,630	\$562,530,978
Plan Fiduciary Net Position				
Employer Contributions	\$13,614,406	\$13,730,305	\$12,706,883	\$13,308,281
Employee Contributions	13,691,494	14,442,190	15,397,475	13,314,132
Pension Plan Net Investment Income	77,946,645	37,782,650	(5,371,824)	24,853,352
Benefit Payments	(29,621,411)	(27,873,802)	(25,459,574)	(23,209,837)
Refunds	(4,041,082)	(3,491,089)	(4,659,711)	(4,110,605)
Pension Plan Administrative Expense	(580,221)	(518,486)	(417,893)	(408,470)
Other	(51,644)	(25,522)	(24,983)	797,291
Net Change in Plan Fiduciary Net Position	\$70,958,187	\$34,046,246	(\$7,829,627)	\$24,544,144
Plan Fiduciary Net Position - Beginning	\$559,283,932	\$525,237,686	\$533,067,313	\$508,523,169
Plan Fiduciary Net Position - Ending (b)	\$630,242,119	\$559,283,932	\$525,237,686	\$533,067,313
Net Pension Liability - Ending (a) - (b)	\$86,044,428	\$75,491,927	\$75,119,944	\$29,463,665
Plan Fiduciary Net Position as a Percentage of Total Pension Liability				
	87.99%	88.11%	87.49%	94.76%
Covered Payroll	\$153,547,078	\$154,779,198	\$150,399,739	\$147,790,833
Net Pension Liability as a Percentage of Covered Payroll				
	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,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$272,169	\$337,474	\$331,123	\$276,305
Interest on the Total Pension Liability	563,514	554,448	517,889	455,677
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	272,060	65,370	201,096	-
Assumption Changes	311,427.00	-	-	-
Benefit Payments	(351,120)	(290,609)	(168,220)	(119,541)
Refunds	(39,723)	(411,989)	(20,849)	(6,886)
Net Change in Total Pension Liability	\$1,028,327	\$254,694	\$861,039	\$605,555
Total Pension Liability - Beginning	\$7,526,049	\$7,271,355	\$6,410,316	\$5,804,761
Total Pension Liability - Ending (a)	\$8,554,376	\$7,526,049	\$7,271,355	\$6,410,316
Plan Fiduciary Net Position				
Employer Contributions	\$156,263	\$136,768	\$158,319	\$142,437
Employee Contributions	367,485	376,685	405,026	335,763
Pension Plan Net Investment Income	902,109	431,043	(55,411)	260,772
Benefit Payments	(351,120)	(290,609)	(168,220)	(119,541)
Refunds	(39,723)	(411,989)	(20,849)	(6,886)
Pension Plan Administrative Expense	(6,431)	(5,731)	(4,637)	(4,312)
Other	(602)	(301)	(276)	1,085
Net Change in Plan Fiduciary Net Position	\$1,027,981	\$235,866	\$313,952	\$609,318
Plan Fiduciary Net Position - Beginning	\$6,434,416	\$6,198,550	\$5,884,598	\$5,275,280
Plan Fiduciary Net Position - Ending (b)	\$7,462,397	\$6,434,416	\$6,198,550	\$5,884,598
Net Pension Liability - Ending (a) - (b)	\$1,091,979	\$1,091,633	\$1,072,805	\$525,718
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	87.23%	85.50%	85.25%	91.80%
Covered Payroll	\$1,975,631	\$2,151,997	\$2,124,296	\$1,731,731
Net Pension Liability as a Percentage of Covered Payroll	55.27%	50.73%	50.50%	30.36%

Note: Information not available prior to 2014

Required Supplementary Information - Investment Returns, Contributions

WRS's success in achieving the 7.00% 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.

Asset Class	Target Allocation	Long-Term Expected Geometric Real Rate of Return	Long-Term Expected Arithmetic Real Rate of Return
Cash	0.00%	0.40%	0.40%
Fixed Income	20.00%	1.25%	1.77%
Equity	45.00%	4.96%	6.88%
Marketable Alternatives	17.50%	2.79%	3.30%
Private Markets	17.50%	5.06%	7.11%
Total	100.00%	3.85%	5.27%

Schedule of Investment Returns				
Last 10 Fiscal (Calendar) Years				
	2017	2016	2015	2014
Annual Money-Weighted Rate of Return, Net of Investment Expenses	14%	7%	-1%	5%

*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.

Assumption Changes and Impact By Plan

The current assumptions used in the actuarial valuation were adopted by the Board effective August 23, 2017 and were first utilized with the January 1, 2018 valuation report.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations presented in the report are intended to provide information for rational decision making.

State of Wyoming Retirement System

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.
2. Real rate of return: increase the current assumption from 4.50% to 4.75%.
3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of return) from 7.75% to 7.00%.
4. Wage inflation: reduce the wage inflation assumption from 4.25% to 2.50%.
5. Payroll growth: reduce the assumed growth in total payroll from 4.25% to 2.50%.
6. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.
7. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.

Required Supplementary Information - Investment Returns, Contributions

8. Salary increase: decrease the assumed salary increases and to move from age-based merit and promotion increases to service-based merit and promotion increases.
 9. Retirement (unreduced retirement): modify the retirement rates to reflect actual experience.
 10. Early (reduced) retirement: modify the retirement rates to reflect actual experience.
 11. Termination (withdrawal): adjust rates to reflect observed experience.
 12. Disability: reduce rates to reflect observed experience.
- The assumption changes increased the accrued liability by \$278 million (a 3% increase).

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

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.
 2. Real rate of return: increase the current assumption from 4.50% to 4.75%.
 3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of return) from 7.75% to 7.00%.
 4. Wage inflation: reduce the wage inflation assumption from 4.25% to 2.50%.
 5. Payroll growth: reduce the assumed growth in total payroll from 4.25% to 2.50%.
 6. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.
 7. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.
 8. Salary increase: modify the assumed salary increases to reflect actual experience.
 9. Retirement (unreduced retirement): modify the retirement rates to reflect actual experience.
 10. Termination (withdrawal): adjust rates to reflect observed experience.
- The assumption changes increased the accrued liability by \$6.5 million.

Wyoming Volunteer Firefighter and Emergency Medical Technician Pension Fund

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.
 2. Real rate of return: increase the current assumption from 4.50% to 4.75%.
 3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of return) from 7.75% to 7.00%.
 4. Wage inflation: reduce the wage inflation assumption from 4.25% to 2.50%.
 5. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.
 6. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.
 7. Retirement (unreduced retirement): modify to the retirement rates to reflect actual experience.
 8. Termination (withdrawal): adjust rates to reflect observed experience.
- The assumption changes increased the accrued liability by \$4.9 million.

Wyoming Paid Firemen's Retirement Fund Plan A

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.
2. Real rate of return: increase the current assumption from 4.50% to 4.75%.
3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of

Required Supplementary Information - Investment Returns, Contributions

return) from 7.75% to 7.00%.

4. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.

5. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.

The assumption changes increased the accrued liability by \$23 million.

Wyoming Paid Firemen's Retirement Fund Plan B

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.

2. Real rate of return: increase the current assumption from 4.50% to 4.75%.

3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of return) from 7.75% to 7.00%.

4. Wage inflation: reduce the wage inflation assumption from 4.25% to 2.50%.

5. Payroll growth: reduce the assumed growth in total payroll from 4.25% to 2.50%.

6. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.

7. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.

8. Salary increase: increased the age-based salary increase rates for merit and promotion.

9. Retirement (unreduced retirement): decreased retirement rates to reflect observed experience.

10. Termination (withdrawal): increased rates to reflect observed experience.

11. Disability: decreased rates to reflect observed experience.

The assumption changes increased the accrued liability by \$9.3 million.

Wyoming Judicial Retirement System

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.

2. Real rate of return: increase the current assumption from 4.50% to 4.75%.

3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of return) from 7.75% to 7.00%.

4. Wage inflation: reduce the wage inflation assumption from 4.25% to 2.50%.

5. Payroll growth: reduce the assumed growth in total payroll from 4.25% to 4.00%.

6. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.

7. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.

8. Salary increase: increase assumption of 3.75% per year will increase to 4.00% per year

The assumption changes increased the accrued liability by \$2.3 million.

Wyoming Law Enforcement Retirement Fund

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.

2. Real rate of return: increase the current assumption from 4.50% to 4.75%.

3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of return) from 7.75% to 7.00%.

Required Supplementary Information - Investment Returns, Contributions

4. Wage inflation: reduce the wage inflation assumption from 4.25% to 2.50%.
 5. Payroll growth: reduce the assumed growth in total payroll from 4.25% to 2.50%.
 6. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.
 7. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.
 8. Salary increase: decrease the total assumed increases while increasing the merit/promotion assumption.
 9. Retirement (unreduced retirement): modify the retirement rates to reflect actual experience.
 10. Early (reduced) retirement: modify the retirement rates to reflect actual experience.
 11. Termination (withdrawal): adjust rates to reflect observed experience.
 12. Disability: reduce rates to reflect observed experience.
- The assumption changes increased the accrued liability by \$52 million.

Wyoming Air Guard Firefighters Retirement System

Below is a summary of the changes in assumptions:

1. Inflation: reduce the current assumption of 3.25% to 2.25%.
 2. Real rate of return: increase the current assumption from 4.50% to 4.75%.
 3. Nominal rate of return: decrease the nominal investment return assumption (the sum of inflation and the real rate of return) from 7.75% to 7.00%.
 4. Wage inflation: reduce the wage inflation assumption from 4.25% to 2.50%.
 5. Payroll growth: reduce the assumed growth in total payroll from 4.25% to 2.50%.
 6. Administrative expenses: recommend reducing the assumed annual increase in expenses from 6.50% per year to 2.50%.
 7. Post-retirement mortality, disabled lives mortality, active life mortality: update to the RP2014 table, projected generationally using MP 2017.
 8. Salary increase: decrease the assumed salary increases and to move from age-based merit and promotion increases to service-based merit and promotion increases.
 9. Retirement (unreduced retirement): Increase the assumed final age of employment from 70 to 80 and modify the retirement rates to reflect actual experience.
 10. Early (reduced) retirement: modify the retirement rates to reflect actual experience.
 11. Termination (withdrawal): adjust rates to reflect observed experience.
- The assumption changes increased the accrued liability by \$327,140.

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					
2017	\$167,125,230	\$148,746,669	\$18,378,561	\$1,776,377,586	8.37%
2016	\$174,211,753	\$151,488,715	\$22,723,038	\$1,782,905,215	8.50%
2015	\$168,411,742	\$144,622,373	\$53,789,369	\$1,744,073,882	8.29%
2014	\$183,086,430	\$129,627,747	\$53,458,683	\$1,709,412,443	7.58%
State Patrol, Game & Fish, Warden & Criminal Investigator Pension Plan					
2017	\$4,041,445	\$3,552,582	\$488,863	\$23,641,495	15.03%
2016	\$4,097,473	\$3,574,065	\$523,408	\$23,636,482	15.12%
2015	\$3,784,380	\$3,355,688	\$428,692	\$22,196,930	15.12%
2014	\$4,037,681	\$3,077,515	\$960,166	\$21,817,686	14.11%
Volunteer Firemen's Pension Plan					
2017	\$2,923,585	\$3,290,994	\$(367,409)	N/A	N/A
2016	\$3,128,272	\$3,198,930	\$(70,658)	N/A	N/A
2015	\$1,139,454	\$2,238,612	\$(1,099,158)	N/A	N/A
Paid Firemen's Pension Plan A					
2017	\$11,734,389	\$-	\$11,734,389	\$195,221	0.00%
2016	\$10,663,740	\$-	\$10,663,740	\$195,221	0.00%
2015	\$9,714,697	\$-	\$9,714,697	\$179,486	0.00%
2014	\$9,458,093	\$-	\$9,458,093	\$198,404	0.00%
Paid Firemen's Pension Plan B					
2017	\$3,496,053	\$3,230,196	\$265,857	\$28,209,686	11.45%
2016	\$3,420,716	\$3,370,961	\$19,755	\$26,390,481	12.77%
2015	\$3,275,448	\$3,273,668	\$1,780	\$25,986,443	12.60%
2014	\$3,273,329	\$3,184,045	\$89,284	\$24,552,559	12.97%
Judicial Pension Plan					
2017	\$543,468	\$949,263	\$(405,795)	\$6,386,001	14.86%
2016	\$579,926	\$925,971	\$(346,045)	\$6,384,628	14.50%
2015	\$589,177	\$920,867	\$(331,690)	\$6,363,028	14.47%
2014	\$596,723	\$916,598	\$(319,875)	\$5,989,181	15.30%
Law Enforcement Pension Plan					
2017	\$11,623,441	\$13,614,406	\$(1,990,965)	\$153,547,078	8.87%
2016	\$12,063,684	\$13,730,305	\$(1,666,621)	\$154,779,198	8.87%
2015	\$11,708,248	\$12,706,883	\$(998,635)	\$150,399,739	8.45%
2014	\$11,812,078	\$13,308,281	\$(1,496,203)	\$147,790,833	9.00%
Air Guard Firefighter Pension Plan					
2017	\$6,011	\$156,263	\$(150,252)	\$1,975,631	7.91%
2016	\$7,634	\$136,768	\$(129,134)	\$2,151,997	6.36%
2015	\$3,987	\$158,319	\$(154,332)	\$2,124,296	7.45%
2014	\$13,694	\$143,582	\$(129,888)	\$1,731,731	8.29%

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

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

Note: Information is not available before 2014.

Other Supplementary Information - Administrative & Investment Expense

Schedule Of Administrative Expenses And Investment Advisory Fees			
Year Ending December 31, 2017	Defined Benefit Plan	457 Plan	Total
Personnel Services:			
Staff Salaries	\$2,675,819	\$302,581	\$2,978,400
Board & Other Salaries	191,550	1,836	193,386
Retirement	377,702	42,933	420,635
Social Security	191,186	22,566	213,752
Insurance	513,358	73,754	587,112
Deferred Compensation	7,100	1,200	8,300
Post Employment Benefits	16,059	1,824	17,883
Total Personnel Services	3,972,774	446,694	4,419,468
Miscellaneous:			
Equipment Repair & Maintenance	1,702	127	1,829
Utilities	5,980	428	6,408
Postage	75,630	5,725	81,355
Dues and Licenses	262,002	10,255	272,257
Advertising-Promotional	19,790	5,945	25,735
Travel	127,930	38,282	166,212
Board Travel	34,677	2,525	37,202
State Car	-	6,396	6,396
Office Supplies	61,140	3,746	64,886
Food Service & Supplies	20,718	1,460	22,178
Real Property Rental	4,448	323	4,771
Equipment Rental	4,193	295	4,488
Total Miscellaneous	618,210	75,507	693,717
Communication:			
Data Services	271,773	-	271,773
Telecommunications	36,337	4,962	41,299
Total Communication	308,110	4,962	313,072
Professional Services:			
Auditing Services	39,580	4,000	43,580
Actuarial Services	407,553	-	407,553
Computer Services	243,163	15,676	258,839
Death Verification Services	3,370	-	3,370
Disability Claims Services	69,480	-	69,480
Investment Consulting Services	285,000	161,725	446,725
IT Project Services	655,529	19,245	674,774
Legal Services	71,507	55,868	127,375
Printing Services	90,816	8,041	98,857
Temporary Employment Services	26,559	14,394	40,953
Other Contracted Services	18,794	4,269	23,063
Space Rental	226,769	17,069	243,838
St of WY - Allocation Expenses	583,391	43,911	627,302
Total Professional Services	2,721,511	344,198	3,065,709
Total Administration Expenses	7,620,605	871,361	8,491,966

Other Supplementary Information - Administrative & Investment Expense

Schedule Of Administrative Expenses And Investment Advisory Fees				
Year Ending December 31, 2017	Defined Benefit Plan	457 Plan	Total	
Depreciation Expense	387,963	-	387,963	
Investment Fees:*				
Investment Advisor Fees	480,000	277,903	757,903	
Custodial Service Fees	818,100	-	818,100	
Record Keeping Fees	-	761,401	761,401	
Security Lending Agent Fees	5,081,743	-	5,081,743	
Total Investment Fees	6,767,806	1,039,304	7,807,110	
Total Administrative expenses & Investment Fees	\$14,388,411	\$1,910,665	\$16,299,076	

* See schedule of fees by investment type located within the Investment Section.

Other Supplementary Information - DC Net Position

Defined Contribution Plan

Combining Schedule Of Participant And Administrative Net Position

December 31, 2017

	Administrative Account	Plan Participant Balances	Eliminations	Total
Assets				
Cash and Short-Term Investments:				
Cash with State Treasurer	\$173,574	\$-	\$-	\$173,574
Domestic Liquidity - Outside Banks	1,784,278	12,445,014	-	14,229,292
	1,957,852	12,445,014	-	14,402,866
Receivables:				
Employee Contributions	-	331,464	-	331,464
Securities Sold	-	-	-	-
Accrued Interest and Dividends	-	-	-	-
Participant Fee Receivable	507,044	-	507,044	-
Rebate and Fee Income Receivable	1,578,752	-	-	1,578,752
Admin Receivable	-	-	-	-
	2,085,796	331,464	507,044	1,910,216
Investments, at Fair Value:				
Fixed Income	-	249,857,142	-	249,857,142
Equities	-	389,665,394	-	389,665,394
Alternatives	-	25,607,042	-	25,607,042
Investment Contracts	-	22,929	-	22,929
Self Directed Brokerage Investments	-	1,980,258	-	1,980,258
Other	-	-	-	-
	-	667,132,765	-	667,132,765
Total Assets	4,043,648	679,909,243	507,044	683,445,847
Liabilities				
Participant Fee Payable	-	507,044	507,044	-
Administrative & Consulting Fees Payable	34,898	-	-	34,898
Total Liabilities	34,898	507,044	507,044	34,898
Net Position Held in Trust for Pension Benefits	\$4,008,750	\$679,402,199	\$-	\$683,410,949

Other Supplementary Information - DC Change in Net Position

Defined Contribution Plan

Combining Schedule Of Changes In Participant And Administrative Net Position

Year Ended December 31, 2017

	Administrative Account	Plan Participant Balances	Eliminations	Total
Additions				
Member Contributions	\$-	\$45,366,141	\$-	\$45,366,141
Administrative Revenue	2,005,618	-	2,009,508	(3,890)
Investment Income:				
Net Appreciation (Depreciation) in Fair Value of Investments	-	79,415,924	-	79,415,924
Interest and Dividends	17,439	-	-	17,439
Total Investment Income(loss)	2,023,057	124,782,065	2,009,508	124,795,614
Deductions				
Benefits Paid/Distributions	-	34,398,895	-	34,398,895
Administrative Expenses	871,361	-	-	871,361
Record Keeping	761,401	-	-	761,401
SVF Portfolio Management	277,903	-	-	277,903
Participant Fees Assessed	-	2,009,508	2,009,508	-
Total Expenditures	1,910,665	36,408,403	2,009,508	36,309,560
Net Increase(Decrease)	112,392	88,373,662	-	88,486,054
Net Position Held in Trust for Pension Benefits				
Beginning of Year	3,896,358	591,028,537	-	594,924,895
End of Year	\$4,008,750	\$679,402,199	-	\$683,410,949

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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, 2017, and the related notes to the financial statements, which collectively comprise WRS's basic financial statements, and have issued our report thereon dated May 29, 2018.

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

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Independent Auditor's Report on Internal Control and Compliance

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 determination of financial statement amounts. 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 WRS'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.

A handwritten signature in black ink that reads "Eide Sully LLP". The signature is written in a cursive, flowing style.

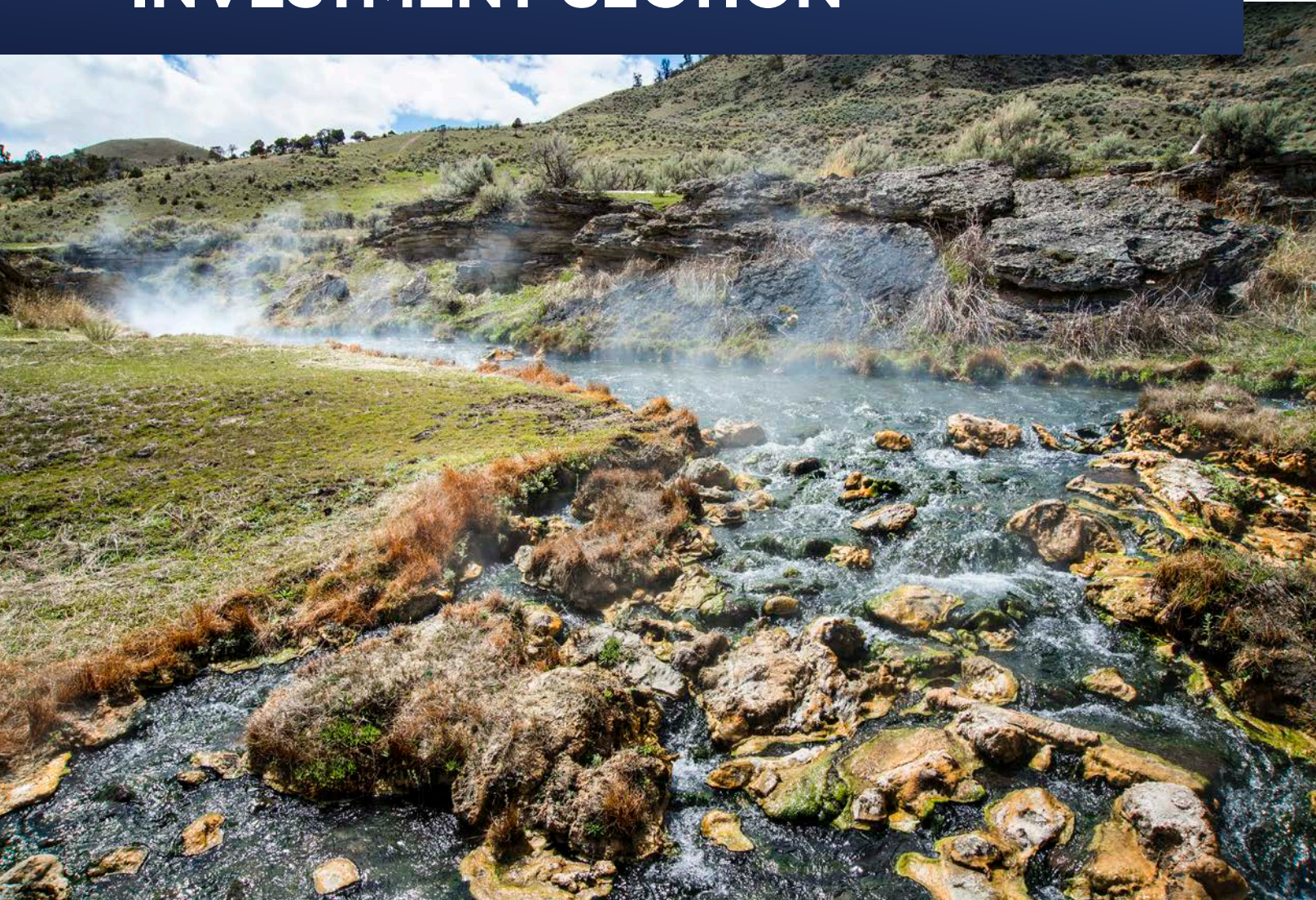
Boise, Idaho
May 29, 2018

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Comprehensive Annual Financial Report 2017

INVESTMENT SECTION

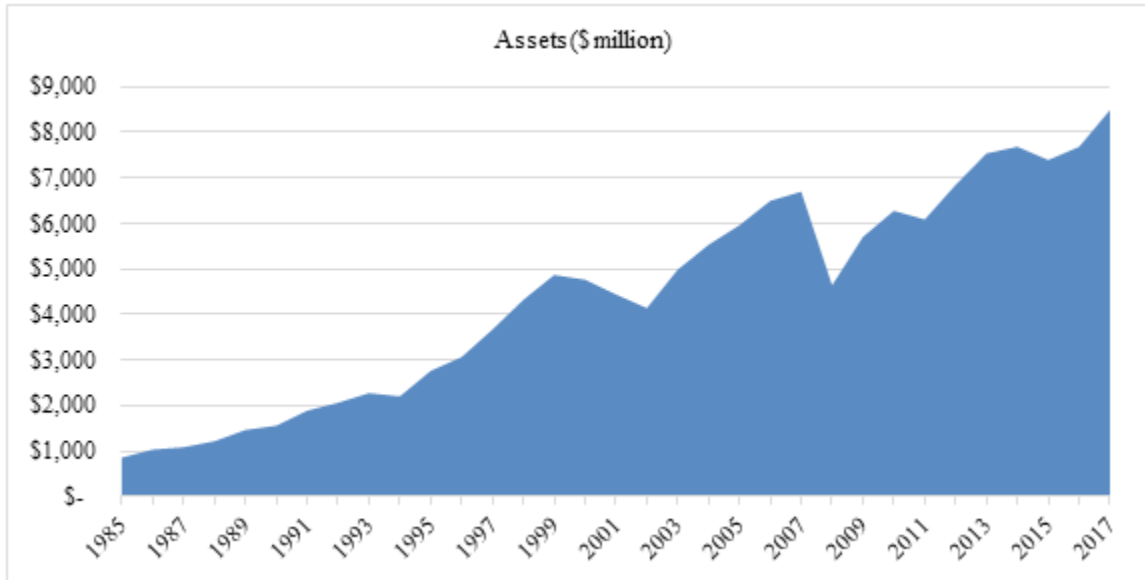


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Total Plan Investments

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, 2017. The investment activity is a time-weighted rate of return methodology based upon fair value.

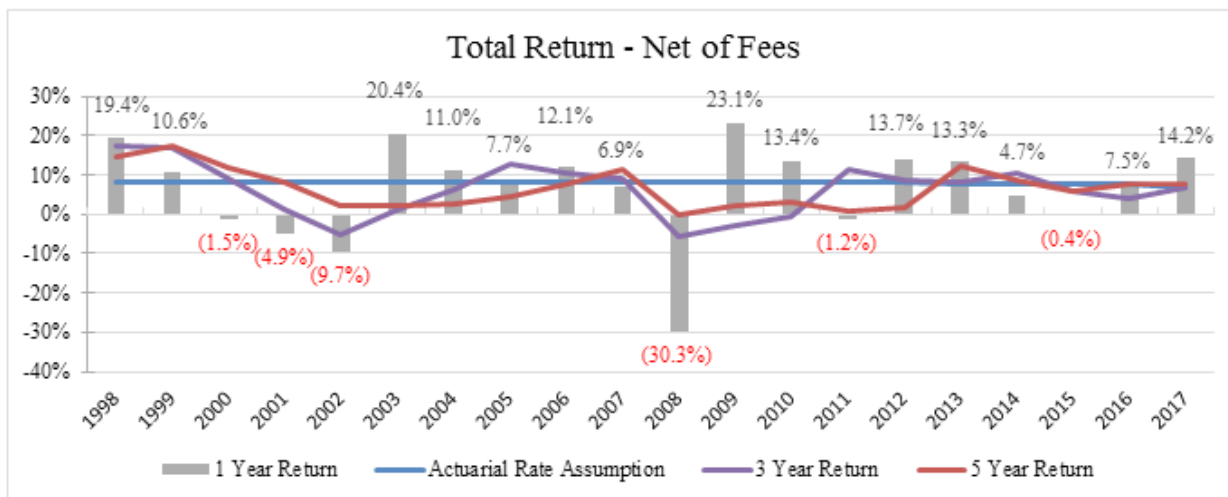
Total Plan investments as of December 31, 2017 were \$8,495,678,788, up \$813 million for the calendar year.



Investment Performance

The WRS investment portfolio generated a one-year return for the year ended December 31, 2017 of 14.2% (net of fees). This compares to a return of 14.6% for the blended benchmark (described in the Management Discussion and Analysis section) and 17.2% for a 60% MSCI ACWI Net Equity/40% Barclays Multiverse Index. The WRS portfolio ranked in the 73rd percentile for 2017 as measured against its peer group. WRS's assumed investment rate of return has been 7.00% since January 1, 2017.

For the three-year period ending December 31, 2017, the portfolio generated an annualized net return of 6.9%. Over that same period, the investment return of the benchmark was 6.9% and the peer group median return was 7.5%. For the five-year period ending December 31, 2017, WRS generated an annualized return of 7.7%, compared to a benchmark return of 7.8% and a peer group median return of 8.7%.



Asset Allocation

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.

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 annually. 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 12-month period and a longer-term 5- to 7-year 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.

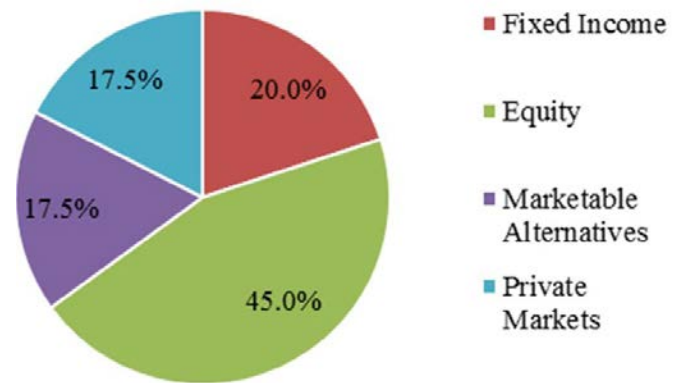
In addition, the Board considers WRS’s ability to practically implement meaningful investment dollars in an asset class in a cost-effective manner. The Board assigns relevant benchmarks to each asset class, thereby creating an atmosphere in which staff can implement Tactical Asset Allocation decisions regarding active and passive implementation. The custom benchmarks for the Board’s Strategic Asset Allocation decisions, effective 2/1/2017, are as follows:

20.0%	* Custom Total Fixed Income Benchmark
+ 49.0%	* Total Return of Custom Blended Equity Index
+ 17.5%	* HFRI Fund of Funds Composite Index
+ 13.5%	* Vintage Year Blended Benchmark
=	Target Asset Allocation Return

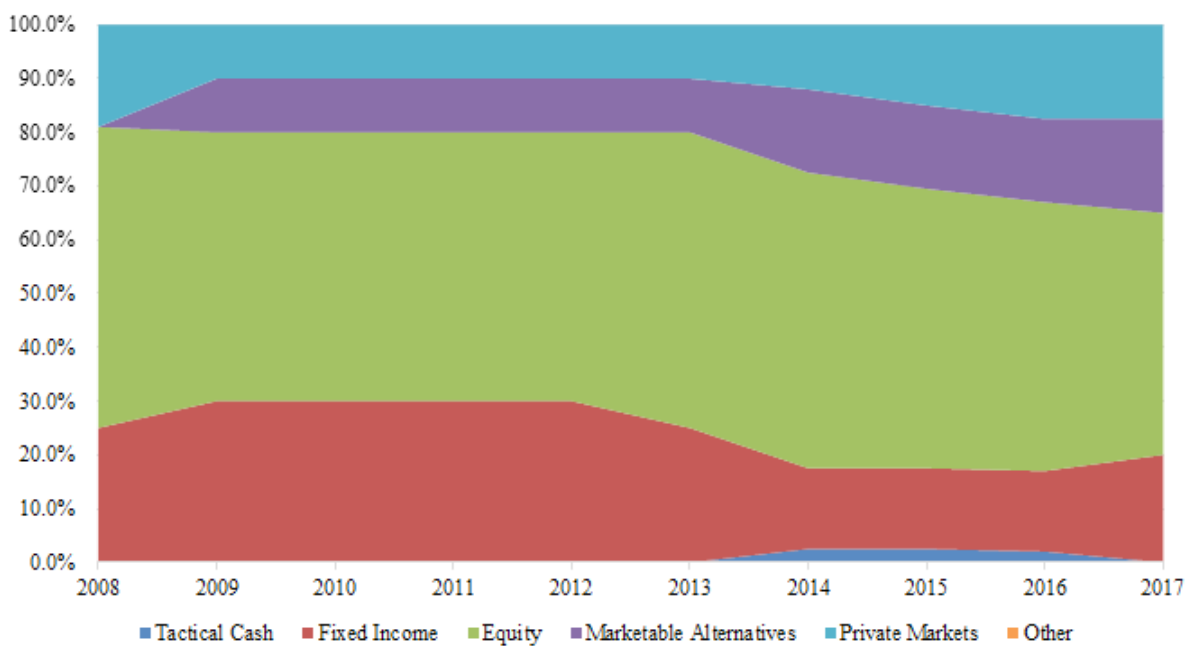
Asset Allocation

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, 2017.

Current Strategic Asset Allocation



Historical Strategic Asset Allocation



+

Strategic Asset Class	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Tactical Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	2.5%	2.0%	0.0%
Fixed Income	31.4%	27.4%	30.0%	30.0%	30.0%	30.0%	15.0%	15.0%	15.0%	20.0%
Equity	60.0%	54.5%	50.0%	50.0%	50.0%	50.0%	55.0%	52.0%	50.0%	45.0%
Marketable Alternatives (Formerly GTAA)	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	15.5%	15.5%	15.5%	17.5%
Private Markets (Formerly Alternatives)	5.9%	11.6%	10.0%	10.0%	10.0%	10.0%	12.0%	15.0%	17.5%	17.5%
Other	2.7%	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

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

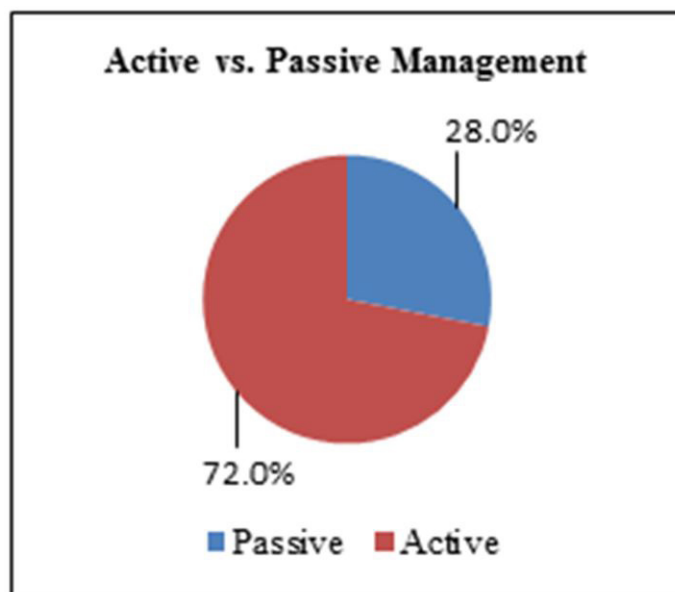
Asset Allocation

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 out 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:

1. 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 20% of assets, which would by default underweight one of the other asset classes.
2. 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 right highlights WRS's exposure to active and passive management within the portfolio through December 31, 2017.

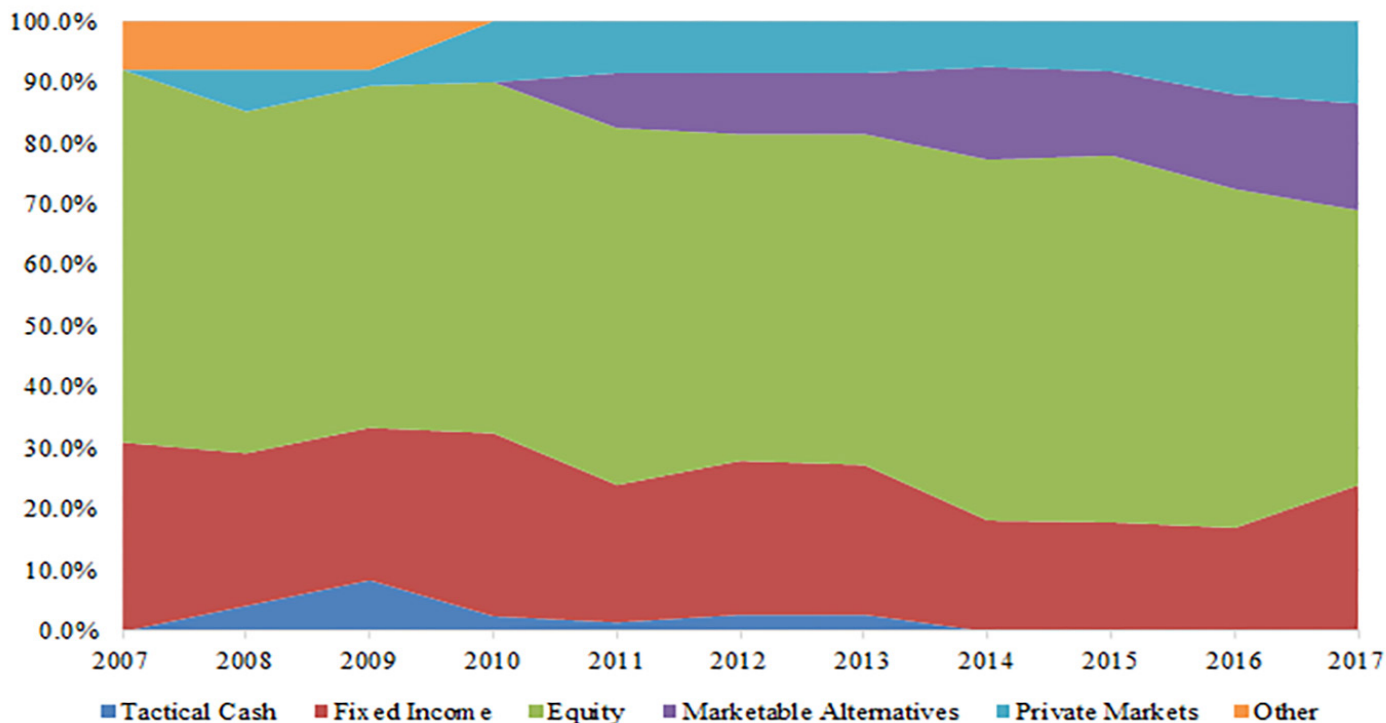


Asset Allocation

Tactical Allocation decisions are 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).

Tactical Allocations as of December 31, 2017, are included in the graph below

Tactical Allocation



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 portfolio 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 underperform 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.

Investment Policy Summary

Appendix I – 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

Return Objective: 7.00% net of expenses

Asset Class	Strategic Asset Allocation Weight	Tactical Asset Allocation Range ⁽¹⁾	Asset Class Benchmark Index
Tactical Cash	0.0%	0.0% - 5.0%	Barclays Short Treasury – Unhedged
Fixed Income	20.0%	15.0% - 25.0%	Blended Benchmark
Core Plus	7.5%	+/- 7.0%	Barclays Multiverse (hedged)
US Government Debt	10.0%	+/- 7.0%	Barclays Government
Opportunistic Credit	2.5%	0.0% - 9.0%	
Equity	45.0%	40.0% - 50.0%	Blended Benchmark
Domestic Equity	22.5%	+/- 10.0%	Russell 3000
International Developed Equity	17.5%	+/- 10.0%	MSCI EAFE IMI, Net Dividend (70% Hedged)
Emerging Markets Equity	5.0%	+/- 10.0%	MSCI EM IMI, Net Dividend
Marketable Alternatives	17.5%	12.5% - 22.5%	HFRI FoF Index
Opportunistic/Directional		0.0% - 10.0%	
Absolute Return		5.0% - 15.0%	
Enhanced Fixed Income		0.0% - 10.0%	
Global Asset Allocation (GAA)		2.5% - 12.0%	
Private Markets	17.5%⁽²⁾	12.5% - 24.0%	Vintage Year Blend
Private Real Assets (Natural Resources, Infrastructure)		0.0% – 7.5%	
Private Real Estate		2.5% - 7.5%	
Private Debt		2.5% - 7.5%	
Private Equity (buyout, venture, distressed)		2.5% - 12.5%	

⁽¹⁾ Tactical Asset Allocation Range is based on percentage of total assets.

⁽²⁾ Represents long-term target for Private Markets and the subcategories. The short-term target for Private Markets is 13.5% with a short-term range of 8.5%-18.5%. The 4% excess exposure between the long-term and short-term target for Private Markets will be invested in Equity which is the most comparable asset class. The Private Markets and Equity Tactical Asset Allocation ranges will be adjusted proportionally (e.g. the short-term Equity Strategic Asset Allocation Target will be 49.0% with a Tactical Asset Allocation range of 44.0%-54.0%). There are no short-term targets for Private Markets' subcategories.

The Board adopted a revised Investment Policy Statement (IPS) on February 16, 2017 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:

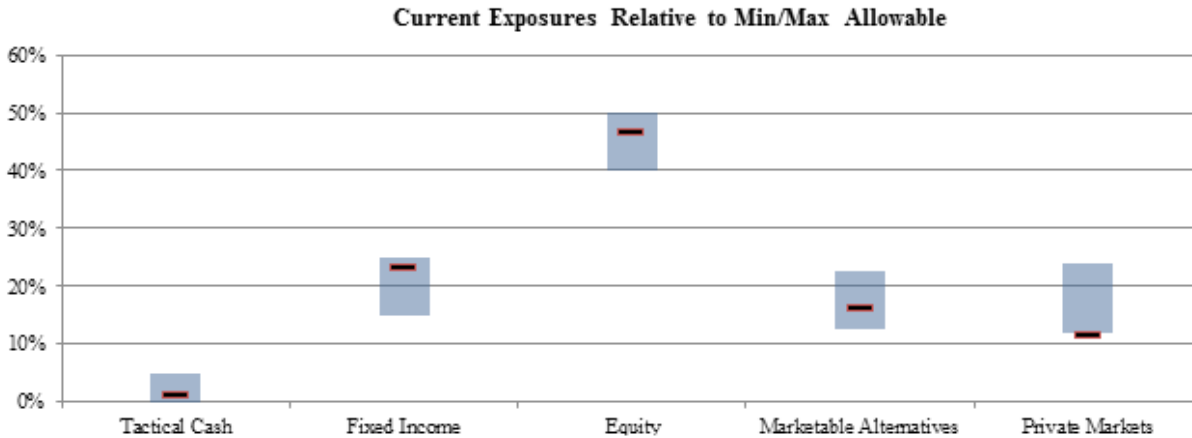
1. Keep contribution rates reasonably level over long periods of time, subject to and recognizing that changes made to the law, actuarial assumptions and benefit levels will impact contribution rates; and
2. Adequately fund aggregate liabilities of the system.

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.

Total Fund Review

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”



The Board’s investment policies are outlined in detail in Note 3 to the Basic Financial Statements section of this CAFR.

WRS’s success in achieving the 7.00% 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.

Actual Asset Class Exposure	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Tactical Cash	0.0%	6.7%	3.0%	2.4%	2.5%	1.8%	0.2%	0.1%	0.9%	1.5%
Fixed Income	27.4%	27.6%	29.4%	23.2%	26.2%	26.3%	18.5%	18.7%	16.4%	23.3%
Equity	54.5%	57.3%	59.2%	54.3%	52.3%	54.0%	58.2%	57.6%	54.0%	46.9%
Marketable Alternatives	0.0%	3.3%	0.0%	10.1%	10.5%	9.6%	14.6%	13.1%	16.6%	16.5%
Private Markets	11.6%	5.2%	5.1%	10.1%	8.5%	8.4%	8.5%	10.4%	12.2%	11.8%
Other	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Asset Class Summaries

Cash

The Board has provided a target of 0.0% 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, 2017, the Cash allocation was \$127,953,206, or 1.5% of the total portfolio after accounting for the overlay program. Cash includes Short Term Investment Funds (STIF). WRS had contracts with two external investment managers who manage portfolios related to cash including the overlay. The current tactical cash managers are listed below:

Organization	Style	Percent of WRS Cash/ Overlay Portfolio
Northern Trust	Money Market	33.0%
Russell	Overlay	67.0%

Fixed Income

The Board has provided a target of 20% for this asset class with a strategic range of 15.0%-25.0%. The WRS Fixed Income asset class is, in aggregate, benchmarked against the Barclays Aggregate from inception to 5/31/2012, Barclays Multiverse Hedged Index until 4/30/2016, and a blended benchmark consisting of 50% Barclays Multiverse Hedged and 50% Barclays Government going forward.

The top 10 holdings within the Fixed Income portfolio as of December 31, 2017, are illustrated in the table below:

Holdings	Percent of WRS Fixed Income Portfolio	Fair Value
UNITED STATES TREAS NTS DTD 07/31/2015 2% DUE 07-31-2022 REG	1.27%	\$25,107,290
UNITED STATES TREAS NTS UNITED STATES TREAS NTS 1.5% DUE 04-15-2020 REG	1.00%	\$19,814,060
UNITED STATES TREASURY N/B T NOTE 1.5% 06-15-2020	1.00%	\$19,798,440
UNITED STATES OF AMER TREAS NOTES 1.75% 05-31-2022	1.00%	\$19,676,124
FNMA SINGLE FAMILY MORTGAGE 3.5% 30 YEARS SETTLES JANUARY	0.78%	\$15,349,449
FNMA SINGLE FAMILY MORTGAGE 4% 30 YEARS SETTLES JANUARY	0.77%	\$15,262,561
UNITED STATES TREAS NTS UNITED STATES TREAS NTS 1.25% DUE 05-31-2019 REG	0.76%	\$15,049,336
UNITED STATES OF AMER TREAS NOTES .75% DUE 08-31-2018	0.75%	\$14,908,590
UNITED STATES TREAS NTS 1.75% 03-31-2022	0.73%	\$14,409,652
FEDERAL HOME LN MTG CORP POOL #S0-7094 3% 03-15-2044 BEO	0.72%	\$14,218,377

As of December 31, 2017, the Fixed Income allocation was \$1,976,639,339, or 23.3% of the total portfolio, after accounting for the overlay program. WRS had contracts with 6 external investment managers. In addition, WRS employs Russell Investments as an overlay manager. During calendar 2017, WRS added Dimensional and Doubleline as US Government Bond managers and Beach Point as an Opportunistic Credit manager.

Organization	Style	Percent of WRS Fixed Income Portfolio
Alliance Bernstein	Core Plus	14.2%
Western Asset Management	Core Plus	11.7%
Dimensional	U.S. Government Debt	7.4%
Doubleline	U.S. Government Debt	12.4%
State Street Global Advisors	U.S. Government Debt	20.6%
Beach Point	Opportunistic Credit	5.1%
Russell Overlay	Overlay	28.6%

Asset Class Summaries

Equity

The Board has provided a target of 45.0% for this asset class with a strategic range of 40.0% to 50.0%. The WRS Equity asset class is, in aggregate, benchmarked against a blend of indices that reflect strategic regional weightings. The Board has given staff the flexibility to invest in all sectors and geographies.

The top 10 holdings within the Equity portfolio as of December 31, 2017, are illustrated in the table below:

Holdings	Percent of WRS Equity Portfolio	Fair Value (\$)
PERSHING SQUARE HLDGS LTD NPV	2.53%	\$100,741,161
APPLE INC COM STK	1.06%	\$42,374,177
MICROSOFT CORP COM	0.93%	\$37,173,032
JOHNSON & JOHNSON COM USD1	0.57%	\$22,580,848
JPMORGAN CHASE & C O COM	0.54%	\$21,511,088
VISA INC COM CL A STK	0.54%	\$21,496,647
ALPHABET INC CAPITAL STOCK USD0.001 CL	0.49%	\$19,587,973
NESTLE SA CHF0.10(REGD)	0.45%	\$17,870,253
ALPHABET INC CAP STK USD0.001 CL C	0.43%	\$17,240,486
NOVARTIS AG CHF0.50 (REGD)	0.43%	\$16,987,591

As of December 31, 2017, the Equity allocation was \$3,988,685,846, or 46.9% of the total portfolio, after accounting for the overlay program. WRS has contracts with 18 external investment managers who manage 19 portfolio strategies. Three managers, Cantillon, ESLJ, and Kiltern, were hired during the year. One new fund was added to an existing manager, SsgA.

Organization	Style	Percent of WRS Equity Portfolio
Acadian	Active Emerging Markets	2.9%
Alliance Bernstein	Passive Domestic	13.7%
AQR	Active International	4.5%
Blackrock	Passive Domestic	4.9%
Burgundy	Active International	8.4%
Cantillon	Active International & Domestic	5.4%
Cevian Capital	Active International	4.3%
Copper Rock	Active International	4.6%
ESLJ	Active International	1.9%
Harding Loevner	Active Emerging Markets	4.8%
Kiltern	Active International	2.4%
Pershing Square	Active Domestic	2.5%
Polunin	Active Emerging Markets	4.6%
Pyrford	Active International	3.0%
RS Small Cap Growth	Active Domestic	2.7%
Russell Overlay	Overlay	(5.7%)
Sanderson	Active International	8.3%
SsgA	Passive Domestic	13.5%
SsgA	Passive International	8.2%
ValueAct Capital	Active Domestic	5.3%

Asset Class Summaries

Marketable Alternatives

The Board has provided a target of 17.5% for this asset class with a strategic range of 12.5% to 22.5%. The WRS Marketable Alternatives asset class is, in aggregate, benchmarked against HFRI FoF Index.

As of December 31, 2017, the Marketable Alternatives allocation was \$1,398,809,361, or 16.5% of the total portfolio. In the calendar year 2017, WRS had contracts with 5 external investment managers who manage 7 unique portfolios. Two managers, Graham and JANA, were terminated during the year.

Organization	Style	Percent of WRS Marketable Alt. Portfolio
Bridgewater	Global Macro	19.7%
GMO	Global Macro	6.5%
JANA	Equity L/S	0.3%
TCI	Equity L/S	20.2%
AQR	Global Asset Allocation	16.6%
Bridgewater	Global Asset Allocation	17.5%
GMO	Global Asset Allocation	19.2%

Asset Class Summaries

Private Markets

The Board has provided a target of 17.5% for this asset class with a strategic range of 12.5% to 24.0%. The Private Market asset class within the WRS portfolio is broken into four categories:

1. Private Debt: This can include Sr. lending, Mezzanine Finance, Distressed debt, Real Estate debt among others.
2. Private Equity: Investments in buyout and venture equity not traded in public markets.
3. Real Estate: Private real estate funds (not publicly traded); can be core, value-add or opportunistic
4. 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. The Board has given staff the flexibility to invest in these strategies within the ranges indicated in the chart to the right. During 2015, the portfolio began committing to Private Equity funds, so the current exposure is low but growing as capital continues to be called.

As of December 31, 2017, the allocation to Private Markets was \$1,003,591,036, or 11.8% of the total portfolio. WRS had contracts with 18 external investment managers who manage 22 portfolios. Two managers, Morgan Stanley, and Center-square, were funded during the year. Two managers, Prudential and UBS, were terminated.

Organization	Style	Percent of WRS Private Market Portfolio
Abbott Capital	Private Equity Fund of One	10.2%
Adams Street	Private Equity	2.3%
Alinda Infrastructure II	Real Assets	4.2%
BlackStone VIII	Real Estate	1.5%
Carl Marks Strategic Opportunities Fund II	Private Debt	2.8%
Centerbridge	Private Debt	5.0%
CenterSquare	Real Estate	13.3%
Grove Street	Private Equity Fund of One	2.6%
Kayne Anderson Mezzanine	Private Debt	0.2%
Kayne Real Estate Partners II	Real Estate	0.2%
Kayne Real Estate Partners III	Real Estate	1.7%
Macquarie Infrastructure (MIP II)	Real Assets	3.8%
Moran (RAPM)	Real Assets Fund of One	14.7%
Morgan Stanley Prime Real Estate	Real Estate	9.7%
Oaktree	Private Debt	3.4%
Orion Mine	Real Assets	6.0%
Ridgewood Fund 2	Real Assets	4.5%
Ridgewood Fund 3	Real Assets	0.5%
Summit	Real Assets	0.1%
Tennenbaum Debt Opp. VI	Private Debt	3.0%
Tennenbaum Senior Loan Fund III	Private Debt	9.9%
Torchlight Debt Opp.	Private Debt	0.3%

Asset Class Summaries

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.

Schedule of Investment Portfolios by Asset Class

As of December 31, 2017 Due to rounding, numbers may not total exactly.

Tactical Cash	Fair Value (in USD)	Percentage of Investments at Fair Value
Cash & Cash Equivalents	\$ 472,044,365	5.6%
Russell Overlay Program	\$ (344,091,158)	-4.1%
Total Tactical Cash	\$ 127,953,206	1.5%
Fixed Income		
Treasuries / Agencies / Government	\$ 1,035,434,002	12.2%
Credit / Corporate Bonds	\$ 234,269,070	2.8%
Mortgages/ABS	\$ 25,717,280	0.3%
EM Debt	\$ 86,971,392	1.0%
TIPS	\$ 19,388,029	0.2%
Russell Overlay (Interest Rates)	\$ 574,859,565	6.8%
Total Fixed Income	\$ 1,976,639,339	23.3%
Equity		
Domestic	\$ 1,780,633,893	21.0%
Emerging Markets	\$ 554,564,162	6.5%
International Developed	\$ 1,884,256,198	22.2%
Russell Overlay (MSCI World ex-US)	\$ (88,308,267)	-1.0%
Russell Overlay (MSCI US)	\$ (15,616,840)	-0.2%
Russell Overlay (MSCI EM)	\$ (126,843,300)	-1.5%
Total Equity	\$ 3,988,685,846	46.9%
Marketable Alternatives		
Total Marketable Alternatives	\$ 1,398,809,361	16.5%
Private Markets		
Private Debt	\$ 255,832,171	3.0%
Private Equity	\$ 157,022,532	1.8%
Real Estate	\$ 239,962,328	2.8%
Other Real Assets	\$ 350,774,005	4.1%
Total Private Markets	\$ 1,003,591,036	11.8%
Total Investments	\$ 8,495,678,788	100.0%

Schedule of Fees and Commissions & Schedule of Investment Results

Total Defined Benefit Pension Plans			
Investment Managers:	Assets Under Management	Total Fees	Basis Points
Tactical Cash	\$472,044,365	\$0	N/A
Equity Managers	4,219,454,253	17,993,634	43 bp
Fixed Income Managers	1,401,779,773	1,968,384	14 bp
Marketable Alternatives	1,398,809,361	15,702,995	112 bp
Private Market Managers	1,003,591,036	11,894,018	119 bp
Net Payables/Receivables	(4,968,055)	N/A	N/A
Total Investment Manager Fees	8,490,710,733	47,559,030	56 bp
Other Investment Service Fees:			
Overlay Manager		1,150,078	N/A
Security Lending Fees		373,433	N/A
Custodial Services		818,100	N/A
Investment Consultant Fees		685,000	N/A
Total Other Service Fees		3,026,611	N/A
Note 1: Incentive fees, estimated at \$36,833,793 for the year, are not included above.			

Schedule of Investment Returns

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

	2017	3 Year	5 Year	10 Year
Fixed Income Returns				
Total Fixed Income Portfolio (Net of fees)	3.49%	2.31%	3.33%	5.46%
Custom Total Fixed Income Benchmark*	2.85%	2.28%	2.51%	4.40%
Equity Returns				
Total Equity Portfolio (Net of fees)	22.87%	8.44%	10.22%	4.59%
Custom Regionally Weighted Benchmark*	22.92%	9.55%	10.95%	4.72%
Marketable Alternatives Returns				
Total MA Portfolio (Net of fees)	11.29%	5.47%	n/a	n/a
HFRI FOF Composite	7.75%	2.60%	n/a	n/a
Private Market Returns				
Total Private Portfolio (Net of fees)	8.22%	8.48%	8.29%	n/a
Vintage Year Blend Benchmark	12.06%	9.10%	10.23%	n/a
TOTAL PORTFOLIO Returns				
Total Portfolio (Net of fees)	14.20%	6.93%	7.73%	4.77%
Strategic Asset Benchmark*	14.63%	6.93%	7.82%	n/a

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

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Comprehensive Annual Financial Report 2017

ACTUARIAL SECTION



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May 3, 2018

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

Subject: Wyoming Retirement System – Actuarial Valuation Certificate

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, 2017, 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 67, the dates of the valuations are:

Retirement Plan	GASB 67 Actuarial Valuation Date
State of Wyoming Retirement System	January 1, 2017
Wyoming Law Enforcement Retirement Fund	January 1, 2017
Wyoming Paid Firemen's Retirement Fund Plan A	January 1, 2017
Wyoming Paid Firemen's Retirement Fund Plan B	January 1, 2017
Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund	January 1, 2017
Wyoming Judicial Retirement System	January 1, 2017
Wyoming Air Guard Firefighters Retirement System	January 1, 2017
Wyoming Volunteer Firefighter and Emergency Medical Technician Pension Fund	January 1, 2017

Wyoming Retirement System
May 3, 2018

Roll-forward procedures were then applied to each set of valuation results in order to provide the actuarial information as of the December 31, 2017 measurement date. Assets for the GASB 67 calculations were based on the market 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 on August 23, 2017 by the Board based on an experience study performed as of December 31, 2016.

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, 2018.

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, 2017 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 January 1, 2018 was supplied to us by Eide Bailly LLP. 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.

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



Actuary's Letter

Wyoming Retirement System
May 3, 2018

The undersigned are independent actuaries and consultants.

Leslie Thompson is an Enrolled Actuary and Leslie Thompson and Paul Wood are Members of the American Academy of Actuaries and meet their Qualification Standards. All signing actuaries are experienced in performing valuations for large public retirement systems.

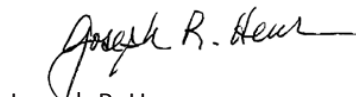
Respectfully submitted,
Gabriel, Roeder, Smith & Company



Leslie Thompson, FSA, FCA, EA, MAAA
Senior Consultant



Paul T. Wood, ASA, FCA, MAAA
Consultant



Joseph R. Herm
Senior Analyst



Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System

Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2018 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 7.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.
- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System

Actuarial Assumptions and Methods

3. Actuarial Value of Assets

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

4. Economic Assumptions

a. Investment return

7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% 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	3.50%
2	6.50%	15	3.25%
3	6.50%	16	3.25%
4	6.00%	17	3.25%
5	5.25%	18	3.25%
6	4.75%	19	3.00%
7	4.25%	20	3.00%
8	4.00%	21	2.75%
9	4.00%	22	2.75%
10	4.00%	23	2.75%
11	3.75%	24	2.75%
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

Actuarial Assumptions and Methods

5. Demographic Assumptions

a. Mortality

Healthy 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%

Healthy 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%

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2018 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.05%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.20%	0.09%
30	0.05%	0.02%	0.09%	0.06%	0.51%	0.24%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.06%	0.04%	0.19%	0.14%	1.31%	0.68%
45	0.09%	0.06%	0.27%	0.18%	1.63%	0.90%
50	0.16%	0.11%	0.39%	0.24%	1.94%	1.16%
55	0.27%	0.17%	0.56%	0.32%	2.28%	1.46%
60	0.47%	0.25%	0.78%	0.47%	2.68%	1.74%
65	0.83%	0.36%	1.11%	0.70%	3.19%	2.06%
70	1.35%	0.61%	1.64%	1.09%	3.94%	2.71%
75			2.58%	1.77%	5.23%	3.95%
80			4.31%	2.98%	7.38%	5.94%
85			7.50%	5.22%	10.97%	8.86%
90			13.21%	9.25%	16.82%	13.02%
95			21.17%	15.41%	23.94%	19.15%
100			30.66%	23.44%	31.90%	27.35%

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System

Actuarial Assumptions and Methods

b. Disability and Withdrawal

Age	Disability		Withdrawal		Withdrawal		
	Male	Female	Ultimate		Service	First five years	
			Male	Female		Male	Female
20	0.01%	0.01%	11.00%	10.00%	1	22%	25%
25	0.01%	0.01%	11.00%	10.00%	2	18%	21%
30	0.01%	0.01%	6.00%	6.00%	3	14%	15%
35	0.01%	0.01%	5.00%	5.00%	4	13%	15%
40	0.01%	0.01%	4.00%	5.00%	5	13%	14%
45	0.02%	0.02%	4.00%	5.00%			
50	0.12%	0.05%	3.00%	4.00%			
55	0.24%	0.12%	3.00%	4.00%			
60	0.24%	0.24%	3.00%	4.00%			

c. Retirement Rates

Age	Retirement	
	Unreduced	Reduced
<50	15.0%	1.0%
50	15.0%	0.5%
51	15.0%	0.5%
52	15.0%	0.5%
53	15.0%	0.5%
54	15.0%	0.5%
55	17.0%	1.0%
56	17.0%	1.0%
57	15.0%	1.0%
58	15.0%	1.0%
59	15.0%	2.5%
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	25.0%	
66	30.0%	
67	28.0%	
68	25.0%	
69	25.0%	
70	15.0%	
71	15.0%	
72	15.0%	
73	15.0%	
74	15.0%	
75	15.0%	
76	15.0%	
77	15.0%	
78	15.0%	
79	15.0%	
80+	100.0%	

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I State of Wyoming 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 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.

Actuarial Assumptions and Methods - Public Employee Plan

Exhibit I

State of Wyoming Retirement System

Actuarial Assumptions and Methods

- 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

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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II

Wyoming Law Enforcement Retirement Fund

Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2018 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 7.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II

Wyoming Law Enforcement Retirement Fund

Actuarial Assumptions and Methods

- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

3. Actuarial Value of Assets

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

4. Economic Assumptions

a. Investment return

7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% 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.

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II

Wyoming Law Enforcement Retirement Fund

Actuarial Assumptions and Methods

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:

RP-2014 Mortality Table for Healthy Employees, 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, 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 - Law Enforcement

Exhibit II Wyoming Law Enforcement Retirement Fund Actuarial Assumptions and Methods

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2018 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.05%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.20%	0.09%
30	0.05%	0.02%	0.09%	0.06%	0.51%	0.24%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.06%	0.04%	0.19%	0.14%	1.31%	0.68%
45	0.09%	0.06%	0.27%	0.18%	1.63%	0.90%
50	0.16%	0.11%	0.39%	0.24%	1.94%	1.16%
55	0.27%	0.17%	0.56%	0.32%	2.28%	1.46%
60	0.47%	0.25%	0.78%	0.47%	2.68%	1.74%
65	0.83%	0.36%	1.11%	0.70%	3.19%	2.06%
70	1.35%	0.61%	1.64%	1.09%	3.94%	2.71%
75			2.58%	1.77%	5.23%	3.95%
80			4.31%	2.98%	7.38%	5.94%
85			7.50%	5.22%	10.97%	8.86%
90			13.21%	9.25%	16.82%	13.02%
95			21.17%	15.41%	23.94%	19.15%
100			30.66%	23.44%	31.90%	27.35%

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

b. Disability and Withdrawal

Age	Disability		Withdrawal		Withdrawal		
	Male	Female	Male	Female	Service	Male	Female
20	0.07%	0.07%	15.00%	15.00%	1	24%	25%
25	0.07%	0.07%	11.00%	11.00%	2	20%	22%
30	0.07%	0.07%	8.50%	8.50%	3	15%	19%
35	0.08%	0.08%	6.50%	6.50%	4	13%	18%
40	0.18%	0.18%	5.50%	5.50%	5	12%	15%
45	0.38%	0.38%	5.00%	5.00%			
50	0.67%	0.67%	3.00%	3.00%			
55	1.14%	1.14%	3.00%	3.00%			
60	2.22%	2.22%	3.00%	3.00%			

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

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II Wyoming Law Enforcement Retirement Fund Actuarial Assumptions and Methods

c. Retirement Rates

Age	Reduced Rate	Unreduced Rate	Age	Reduced Rate	Unreduced Rate
50	2.0%	10.0%	58	2.0%	10.0%
51	2.0%	10.0%	59	2.0%	10.0%
52	2.0%	10.0%	60	NA	20.0%
53	2.0%	10.0%	61	NA	13.0%
54	2.0%	10.0%	62	NA	13.0%
55	2.0%	10.0%	63	NA	13.0%
56	2.0%	10.0%	64	NA	13.0%
57	2.0%	10.0%	65	NA	15.0%

10% is assumed for members with at least 20 years of service before age 50

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.

Actuarial Assumptions and Methods - Law Enforcement

Exhibit II

Wyoming Law Enforcement Retirement Fund

Actuarial Assumptions and Methods

- 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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

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Actuarial Assumptions and Methods - Paid Firefighter 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, 2018 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 7.00%), 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 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.

Actuarial Assumptions and Methods - Paid Firefighter Plan A

Exhibit III

Wyoming Paid Firemen's Retirement Fund Plan A

Actuarial Assumptions and Methods

3. Actuarial Value of Assets

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

4. Economic Assumptions

a. Investment return

7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% net real rate of return. 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%.

d. Cost-of-living adjustment:

3.00% per year

Actuarial Assumptions and Methods - Paid Firefighter Plan A

Exhibit III

Wyoming Paid Firemen's Retirement Fund Plan A

Actuarial Assumptions and Methods

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%

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2018 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.05%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.20%	0.09%
30	0.05%	0.02%	0.09%	0.06%	0.51%	0.24%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.06%	0.04%	0.19%	0.14%	1.31%	0.68%
45	0.09%	0.06%	0.27%	0.18%	1.63%	0.90%
50	0.16%	0.11%	0.39%	0.24%	1.94%	1.16%
55	0.27%	0.17%	0.56%	0.32%	2.28%	1.46%
60	0.47%	0.25%	0.78%	0.47%	2.68%	1.74%
65	0.83%	0.36%	1.11%	0.70%	3.19%	2.06%
70	1.35%	0.61%	1.64%	1.09%	3.94%	2.71%
75			2.58%	1.77%	5.23%	3.95%
80			4.31%	2.98%	7.38%	5.94%
85			7.50%	5.22%	10.97%	8.86%
90			13.21%	9.25%	16.82%	13.02%
95			21.17%	15.41%	23.94%	19.15%
100			30.66%	23.44%	31.90%	27.35%

Actuarial Assumptions and Methods - Paid Firefighter Plan A

Exhibit III

Wyoming Paid Firemen's Retirement Fund Plan A

Actuarial Assumptions and Methods

b. Disability and Withdrawal

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

Actuarial Assumptions and Methods - Paid Firefighter Plan A

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.

Actuarial Assumptions and Methods - Paid Firefighter Plan A

Exhibit III

Wyoming Paid Firemen's Retirement Fund Plan A

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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

Actuarial Assumptions and Methods - Paid Firefighter 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, 2018 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 7.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.
- d. The unfunded or "overfunded" actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

Actuarial Assumptions and Methods - Paid Firefighter Plan B

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B

Actuarial Assumptions and Methods

3. Actuarial Value of Assets

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

4. Economic Assumptions

a. Investment return

7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% net real rate of return. This rate represents the assumed return, net of investment expenses.

b. Salary increase rate

Age	Rate
20	7.50%
25	7.00%
30	7.00%
35	6.50%
40	5.50%
45	5.00%
50	5.00%
55	4.75%
60	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.

Actuarial Assumptions and Methods - Paid Firefighter Plan B

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B

Actuarial Assumptions and Methods

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Pre-Retirement Mortality:

RP-2014 Mortality Table for Healthy Employees, 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, 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%

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2018 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.05%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.20%	0.09%
30	0.05%	0.02%	0.09%	0.06%	0.51%	0.24%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.06%	0.04%	0.19%	0.14%	1.31%	0.68%
45	0.09%	0.06%	0.27%	0.18%	1.63%	0.90%
50	0.16%	0.11%	0.39%	0.24%	1.94%	1.16%
55	0.27%	0.17%	0.56%	0.32%	2.28%	1.46%
60	0.47%	0.25%	0.78%	0.47%	2.68%	1.74%
65	0.83%	0.36%	1.11%	0.70%	3.19%	2.06%
70	1.35%	0.61%	1.64%	1.09%	3.94%	2.71%
75			2.58%	1.77%	5.23%	3.95%
80			4.31%	2.98%	7.38%	5.94%
85			7.50%	5.22%	10.97%	8.86%
90			13.21%	9.25%	16.82%	13.02%
95			21.17%	15.41%	23.94%	19.15%
100			30.66%	23.44%	31.90%	27.35%

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

Actuarial Assumptions and Methods - Paid Firefighter Plan B

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B

Actuarial Assumptions and Methods

b. Disability and Withdrawal

Age	Disability		Withdrawal	
	Male	Female	Ultimate	
			Male	Female
20	0.02%	0.02%	12.00%	12.00%
25	0.02%	0.02%	9.00%	9.00%
30	0.02%	0.02%	4.00%	4.00%
35	0.15%	0.15%	3.00%	3.00%
40	0.34%	0.34%	2.50%	2.50%
45	0.52%	0.52%	2.00%	2.00%
50	0.66%	0.66%	2.00%	2.00%
55	1.45%	1.45%	0.50%	0.50%
60	1.60%	1.60%	0.50%	0.50%

c. Retirement Rates

Age	Rate
50	20.0%
51	10.0%
52	10.0%
53	10.0%
54	10.0%
55	20.0%
56	25.0%
57	25.0%
58	15.0%
59	15.0%
60	25.0%
61	50.0%
62	100.0%

Actuarial Assumptions and Methods - Paid Firefighter Plan B

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 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.

Actuarial Assumptions and Methods - Paid Firefighter Plan B

Exhibit IV

Wyoming Paid Firemen's Retirement Fund Plan B

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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

Actuarial Assumptions and Methods - Warden, Patrol, DCI Plan

Exhibit IV 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, 2018 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 7.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

Actuarial Assumptions and Methods - Warden, Patrol, DCI Plan

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

Actuarial Assumptions and Methods

- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

3. Actuarial Value of Assets

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

4. Economic Assumptions

a. Investment return

7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% 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.

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

Actuarial Assumptions and Methods

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:

RP-2014 Mortality Table for Healthy Employees, 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, 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 - Warden, Patrol, DCI Plan

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

Actuarial Assumptions and Methods

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2018 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.05%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.20%	0.09%
30	0.05%	0.02%	0.09%	0.06%	0.51%	0.24%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.06%	0.04%	0.19%	0.14%	1.31%	0.68%
45	0.09%	0.06%	0.27%	0.18%	1.63%	0.90%
50	0.16%	0.11%	0.39%	0.24%	1.94%	1.16%
55	0.27%	0.17%	0.56%	0.32%	2.28%	1.46%
60	0.47%	0.25%	0.78%	0.47%	2.68%	1.74%
65	0.83%	0.36%	1.11%	0.70%	3.19%	2.06%
70	1.35%	0.61%	1.64%	1.09%	3.94%	2.71%
75			2.58%	1.77%	5.23%	3.95%
80			4.31%	2.98%	7.38%	5.94%
85			7.50%	5.22%	10.97%	8.86%
90			13.21%	9.25%	16.82%	13.02%
95			21.17%	15.41%	23.94%	19.15%
100			30.66%	23.44%	31.90%	27.35%

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

b. Disability and Withdrawal

Age	Disability		Withdrawal	
			Ultimate	
	Male	Female	Male	Female
20	0.10%	0.10%	18.00%	18.00%
25	0.10%	0.10%	6.00%	6.00%
30	0.23%	0.23%	6.00%	6.00%
35	0.39%	0.39%	6.00%	6.00%
40	0.57%	0.57%	5.00%	5.00%
45	0.73%	0.73%	5.00%	5.00%
50	0.75%	0.75%	2.50%	2.50%
55	0.75%	0.75%	1.00%	1.00%
60	0.75%	0.75%	1.00%	1.00%

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

Actuarial Assumptions and Methods - Warden, Patrol, DCI Plan

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

Actuarial Assumptions and Methods

c. Retirement Rates

Age	Rate	Age	Rate
50	15%	56	10%
51	5%	57	15%
52	5%	58	15%
53	5%	59	15%
54	10%	60	35%
55	10%	61	40%
		62	100%

Actuarial Assumptions and Methods - Warden, Patrol, DCI Plan

Exhibit IV 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.

Actuarial Assumptions and Methods - Warden, Patrol, DCI Plan

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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

Actuarial Assumptions and Methods - Judicial Plan

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2018 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 7.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

Actuarial Assumptions and Methods - Judicial Plan

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

- 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.

3. Actuarial Value of Assets

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

4. Economic Assumptions

a. Investment return

7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% net real rate of return. This rate represents the assumed return, net of investment expenses.

b. Salary increase rate

4.00% per annum

c. Payroll growth rate

In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 4.00% 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 - Judicial Plan

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

5. Demographic Assumptions

a. Mortality

Healthy 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%

Healthy 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%

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2018 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.05%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.20%	0.09%
30	0.05%	0.02%	0.09%	0.06%	0.51%	0.24%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.06%	0.04%	0.19%	0.14%	1.31%	0.68%
45	0.09%	0.06%	0.27%	0.18%	1.63%	0.90%
50	0.16%	0.11%	0.39%	0.24%	1.94%	1.16%
55	0.27%	0.17%	0.56%	0.32%	2.28%	1.46%
60	0.47%	0.25%	0.78%	0.47%	2.68%	1.74%
65	0.83%	0.36%	1.11%	0.70%	3.19%	2.06%
70	1.35%	0.61%	1.64%	1.09%	3.94%	2.71%
75			2.58%	1.77%	5.23%	3.95%
80			4.31%	2.98%	7.38%	5.94%
85			7.50%	5.22%	10.97%	8.86%
90			13.21%	9.25%	16.82%	13.02%
95			21.17%	15.41%	23.94%	19.15%
100			30.66%	23.44%	31.90%	27.35%

Actuarial Assumptions and Methods - Judicial Plan

Exhibit VI Wyoming Judicial Retirement System Actuarial Assumptions and Methods

b. Disability and Withdrawal

Age	Disability		Withdrawal	
	Male	Female	Ultimate	
			Male	Female
20	0.01%	0.01%	5.60%	5.60%
25	0.01%	0.01%	4.20%	4.20%
30	0.01%	0.01%	2.90%	2.90%
35	0.01%	0.01%	2.00%	2.00%
40	0.01%	0.01%	1.50%	1.50%
45	0.01%	0.01%	1.10%	1.10%
50	0.03%	0.03%	0.80%	0.80%
55	0.05%	0.05%	0.60%	0.60%
60	0.07%	0.07%	0.40%	0.40%

c. Retirement Rates

Age	Rate	Age	Rate
55	2%	64	2%
56	2%	65	15%
57	2%	66	10%
58	2%	67	10%
59	2%	68	10%
60	2%	69	10%
61	2%	70	15%
62	2%	71	15%
63	2%	72	100%

Actuarial Assumptions and Methods - Judicial Plan

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.

Actuarial Assumptions and Methods - Judicial Plan

Exhibit VI

Wyoming Judicial Retirement System

Actuarial Assumptions and Methods

- 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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

Actuarial Assumptions and Methods - Air Guard Firefighters Plan

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

The following methods and assumptions were used in preparing the January 1, 2018 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 7.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

Actuarial Assumptions and Methods - Air Guard Firefighters Plan

Exhibit VII

Wyoming Air Guard Firefighters Retirement System

Actuarial Assumptions and Methods

d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

3. Actuarial Value of Assets

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

4. Economic Assumptions

a. Investment return

7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% 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	3.50%
2	6.50%	15	3.25%
3	6.50%	16	3.25%
4	6.00%	17	3.25%
5	5.25%	18	3.25%
6	4.75%	19	3.00%
7	4.25%	20	3.00%
8	4.00%	21	2.75%
9	4.00%	22	2.75%
10	4.00%	23	2.75%
11	3.75%	24	2.75%
12	3.50%	25	2.50%
13	3.50%	25+	2.50%

Actuarial Assumptions and Methods - Air Guard Firefighters Plan

Exhibit VII

Wyoming Air Guard Firefighters Retirement System

Actuarial Assumptions and Methods

c. Payroll growth rate

In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 2.50% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

d. Cost-of-Living adjustment

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

5. Demographic Assumptions

a. Mortality

Healthy Pre-Retirement Mortality:

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%

Healthy 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%

Actuarial Assumptions and Methods - Air Guard Firefighters Plan

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

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2018 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.05%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.20%	0.09%
30	0.05%	0.02%	0.09%	0.06%	0.51%	0.24%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.06%	0.04%	0.19%	0.14%	1.31%	0.68%
45	0.09%	0.06%	0.27%	0.18%	1.63%	0.90%
50	0.16%	0.11%	0.39%	0.24%	1.94%	1.16%
55	0.27%	0.17%	0.56%	0.32%	2.28%	1.46%
60	0.47%	0.25%	0.78%	0.47%	2.68%	1.74%
65	0.83%	0.36%	1.11%	0.70%	3.19%	2.06%
70	1.35%	0.61%	1.64%	1.09%	3.94%	2.71%
75			2.58%	1.77%	5.23%	3.95%
80			4.31%	2.98%	7.38%	5.94%
85			7.50%	5.22%	10.97%	8.86%
90			13.21%	9.25%	16.82%	13.02%
95			21.17%	15.41%	23.94%	19.15%
100			30.66%	23.44%	31.90%	27.35%

b. Disability and Withdrawal

Age	Disability		Withdrawal		Withdrawal		
	Male	Female	Ultimate		Service	First five years	
			Male	Female		Male	Female
20	0.01%	0.01%	11.00%	10.00%	1	22.00%	25.00%
25	0.01%	0.01%	11.00%	10.00%	2	18.00%	21.00%
30	0.01%	0.01%	6.00%	6.00%	3	14.00%	15.00%
35	0.01%	0.01%	5.00%	5.00%	4	13.00%	15.00%
40	0.01%	0.01%	4.00%	5.00%	5	13.00%	14.00%
45	0.03%	0.03%	4.00%	5.00%			
50	0.08%	0.08%	3.00%	4.00%			
55	0.20%	0.20%	3.00%	4.00%			
60	0.20%	0.20%	3.00%	4.00%			

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

Actuarial Assumptions and Methods - Air Guard Firefighters Plan

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

c. Retirement Rates

Age	Retirement	
	Unreduced	Reduced
<50	15.0%	1.0%
50	15.0%	0.5%
51	15.0%	0.5%
52	15.0%	0.5%
53	15.0%	0.5%
54	15.0%	0.5%
55	17.0%	1.0%
56	17.0%	1.0%
57	15.0%	1.0%
58	15.0%	1.0%
59	15.0%	2.5%
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	25.0%	
66	30.0%	
67	28.0%	
68	25.0%	
69	25.0%	
70	15.0%	
71	15.0%	
72	15.0%	
73	15.0%	
74	15.0%	
75	15.0%	
76	15.0%	
77	15.0%	
78	15.0%	
79	15.0%	
80+	100.0%	

Actuarial Assumptions and Methods - Air Guard Firefighters Plan

Exhibit VII

Wyoming Air Guard Firefighters 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 Firefighters Plan

Exhibit VII

Wyoming Air Guard Firefighters 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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

Actuarial Assumptions and Methods - Vol Fire and EMT Plan

Exhibit VIII Wyoming Volunteer Firefighter and Emergency Medical Technician Pension Fund

Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2018 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 7.00%), 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 a unfunded accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant 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.

Exhibit VIII Wyoming Volunteer Firefighter and Emergency Medical Technician Pension Fund

Actuarial Assumptions and Methods

- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

3. Actuarial Value of Assets

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

4. Economic Assumptions

Investment return: 7.00% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.75% 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:

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%

Healthy 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%

Actuarial Assumptions and Methods - Vol Fire and EMT Plan

Exhibit VIII Wyoming Volunteer Firefighter and Emergency Medical Technician Pension Fund

Actuarial Assumptions and Methods

Age	Pre-Retirement		Post-Retirement	
	Projected to 2018 using Scale MP-2017			
	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%
25	0.05%	0.02%	0.06%	0.03%
30	0.05%	0.02%	0.09%	0.06%
35	0.06%	0.03%	0.13%	0.09%
40	0.06%	0.04%	0.19%	0.14%
45	0.09%	0.06%	0.27%	0.18%
50	0.16%	0.11%	0.39%	0.24%
55	0.27%	0.17%	0.56%	0.32%
60	0.47%	0.25%	0.78%	0.47%
65	0.83%	0.36%	1.11%	0.70%
70	1.35%	0.61%	1.64%	1.09%
75			2.58%	1.77%
80			4.31%	2.98%
85			7.50%	5.22%
90			13.21%	9.25%
95			21.17%	15.41%
100			30.66%	23.44%

b. Withdrawal Rates

Age	Withdrawal	
	Ultimate	
	Male	Female
20	20.00%	20.00%
25	11.00%	11.00%
30	8.00%	8.00%
35	5.00%	5.00%
40	5.00%	5.00%
45	3.00%	3.00%
50	2.00%	2.00%
55	2.00%	2.00%
60	2.00%	2.00%

Service	Withdrawal	
	First five years	
	Male	Female
1	16.0%	16.0%
2	15.5%	15.5%
3	15.0%	15.0%
4	13.0%	13.0%
5	10.0%	10.0%

c. Retirement Rates

Age	Rates
<60	0.0%
60	70.0%
61	15.0%
62	15.0%
63	20.0%
64	25.0%
65	25.0%
66	30.0%
67	40.0%
68	40.0%
69	75.0%
70	100.0%

Actuarial Assumptions and Methods - Vol Fire and EMT Plan

Exhibit VIII Wyoming Volunteer Firefighter and Emergency Medical Technician 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

Actuarial Assumptions and Methods - Vol Fire and EMT Plan

Exhibit VIII Wyoming Volunteer Firefighter and Emergency Medical Technician 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, 2016. 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, 2016 Wyoming Retirement System Experience Study.

Actuarial Summary

Assets

As shown in the Auditor's Report as of December 31, 2017, net position totaled \$8,511,733,716 at fair value; compared to \$7,715,392,350 the prior year. This represents an increase of 10.3%.

For the Public Employee System, there is a difference of approximately \$43.8 million between market and actuarial value of assets. The actuarial value of assets on this basis is \$7,314,683,343 which is 3.6% higher than last year's value of \$7,063,051,856.

For the Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Pension Plan, there is an approximate difference of \$896,334 between market and actuarial value of assets. The actuarial value of assets on this basis is \$140,712,382 which is 4.5% higher than last year's value of \$134,609,253.

For the Volunteer Firefighter & EMT Pension Plan, there is an approximate difference of \$415,227 between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$81,168,922 which is 3.8% higher than last year's value of \$78,176,796.

For the Paid Firemen's Pension Plan A, there is an approximate difference of \$326,917 between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$117,019,469 which is 6.0% lower than last year's value of \$124,435,245.

For the Paid Firemen's Pension Plan B, there is an approximate difference of \$1.2 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$144,816,308 which is 7.7% higher than last year's value of \$134,450,595.

For the Wyoming Judicial Pension Plan, there is an approximate difference of \$237,144 between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$29,062,780 which is 8.9% higher than last year's value of \$26,773,208.

For the Wyoming Law Enforcement Pension Plan, there is an approximate difference of \$4.7 million between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$625,562,038 which is 5.9% higher than last year's value of \$590,466,391.

For the Air Guard Firefighters Pension Plan, there is an approximate difference of \$51,304 between fair value and actuarial value of assets. The actuarial value of assets on this basis is \$7,411,093 which is 9.0% higher than last year's value of \$6,800,719.

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.

We have calculated the cost of funding (or amortizing) the unfunded actuarial accrued liability (UAAL) 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.

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

Schedule of Active Member Valuation Data

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	Number	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2009	363	35,021	1,585,727	45,279	7	3,773
1/1/2010	442	35,593	1,698,836	47,729	6	3,977
1/1/2011	444	35,828	1,728,434	48,243	1	4,020
1/1/2012	475	36,070	1,756,856	48,707	1	4,059
1/1/2013	481	36,444	1,782,069	48,899	0	4,075
1/1/2014	485	36,354	1,782,062	49,020	0	4,085
1/1/2015	478	36,489	1,818,197	49,829	2	4,152
1/1/2016	479	36,577	1,858,678	50,816	2	4,235
1/1/2017	479	35,892	1,851,874	51,596	2	4,300
1/1/2018	476	35,013	1,784,888	50,978	-1	4,248

*Annual Payroll in Thousands

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

Valuation Date	Reporting Agencies	Number	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2009	3	329	22,865	69,499	11	5,792
1/1/2010	3	320	23,393	73,104	5	6,092
1/1/2011	3	322	23,745	73,741	1	6,145
1/1/2012	3	318	24,390	76,698	4	6,392
1/1/2013	3	322	24,425	75,854	-1	6,321
1/1/2014	3	303	22,745	75,066	-1	6,256
1/1/2015	3	304	23,140	76,119	1	6,343
1/1/2016	3	317	24,641	77,732	2	6,478
1/1/2017	3	315	24,646	78,242	1	6,520
1/1/2018	3	304	23,640	77,762	-1	6,480

*Annual Payroll in Thousands

Volunteer Firemen’s Pension Plan

Valuation Date	Reporting Agencies	Number	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	49	11
1/1/2018	122	2,318	5,545	49	11

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

Schedule of Active Member Valuation Data

Paid Firemen's Pension Plan A						
Valuation Date	Reporting Agencies	Number	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2009	6	15	762	50,816	-13	4,235
1/1/2010	6	12	860	71,695	41	5,975
1/1/2011	5	8	552	68,983	4	5,749
1/1/2012	5	7	481	68,753	0	5,729
1/1/2013	4	7	486	69,467	1	5,789
1/1/2014	2	3	198	66,135	-5	5,511
1/1/2015	2	3	179	59,829	-10	4,986
1/1/2016	2	3	195	65,074	9	5,423
1/1/2017	2	3	195	65,074	0	5,423
1/1/2018	2	2	134	67,077	3	5,590

*Annual Payroll in Thousands

Paid Firemen's Pension Plan B						
Valuation Date	Reporting Agencies	Number	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2009	12	315	20,842	66,165	3	5,514
1/1/2010	12	331	22,211	67,104	1	5,592
1/1/2011	14	327	22,517	68,860	3	5,738
1/1/2012	15	328	22,678	69,141	0	5,762
1/1/2013	16	356	24,211	68,008	-2	5,667
1/1/2014	16	368	25,596	69,554	2	5,796
1/1/2015	16	369	27,091	73,417	6	6,118
1/1/2016	16	372	27,512	73,957	1	6,163
1/1/2017	16	371	29,409	79,268	7	6,606
1/1/2018	16	363	27,481	75,706	-4	6,309

*Annual Payroll in Thousands

Judicial Pension Plan						
Valuation Date	Reporting Agencies	Number	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary
1/1/2009	1	39	4,402	112,863	4	9,405
1/1/2010	1	39	4,664	119,593	6	9,966
1/1/2011	1	40	4,867	121,667	2	10,139
1/1/2012	1	40	4,862	121,544	0	10,129
1/1/2013	1	41	5,411	131,967	9	10,997
1/1/2014	1	44	6,214	141,222	7	11,769
1/1/2015	1	46	6,602	143,514	2	11,960
1/1/2016	1	46	6,624	144,001	0	12,000
1/1/2017	1	46	6,625	144,032	0	12,003
1/1/2018	1	47	6,820	145,114	1	12,093

*Annual Payroll in Thousands

Schedule of Active Member Valuation Data

Law Enforcement Pension Plan							
Valuation Date	Reporting Agencies	Number	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary	
1/1/2009	80	2,566	132,702	51,715	8	4,310	
1/1/2010	81	2,801	149,481	53,367	3	4,447	
1/1/2011	78	2,879	154,652	53,717	1	4,476	
1/1/2012	78	2,847	155,482	54,613	2	4,551	
1/1/2013	80	2,834	157,764	55,668	2	4,639	
1/1/2014	80	2,808	154,072	54,869	-1	4,572	
1/1/2015	78	2,755	156,792	56,912	4	4,743	
1/1/2016	78	2,761	161,357	58,442	3	4,870	
1/1/2017	78	2,719	160,073	58,872	1	4,906	
1/1/2018	78	2,661	155,696	58,510	-1	4,876	

*Annual Payroll in Thousands

Air Guard Firefighters Pension Plan							
Valuation Date	Reporting Agencies	Number	Annual Payroll*	Annual Average Salary	% Increase In Average Salary	Average Monthly Salary	
1/1/2011	1	24	1,499	62,474	0	5,206	
1/1/2012	1	24	1,523	63,448	2	5,287	
1/1/2013	1	31	1,866	60,206	-5	5,017	
1/1/2014	1	31	1,805	58,236	-3	4,853	
1/1/2015	1	38	2,215	58,278	0	4,857	
1/1/2016	1	36	2,243	62,318	7	5,193	
1/1/2017	1	35	2,060	58,846	-6	4,904	
1/1/2018	1	38	2,208	58,116	1	4,843	

Note: The Air Guard Firefighters Pension Plan was separated from the Public Employee Pension Plan on 01/01/2011.

*Annual Payroll in Thousands

Schedule of Retirees & Beneficiaries Added to & Removed from Rolls

Public Employee Pension Plan								
Added to Rolls			Removed from Rolls					
Year	Number	\$ Annual Pension Benefits*	Number	\$ Annual Pension Benefits*	Rolls-End of Year Number	\$ Annual Pension Benefit**	% Change in Annual Pension Benefit	\$ Average Annual Pension Benefit
2009	1,160	24,062	577	6,292	18,916	286.7	6.6	15,155
2010	1,388	31,055	562	6,314	19,742	331.4	8.6	15,774
2011	1,538	34,517	592	7,020	20,688	338.9	8.8	16,382
2012	1,497	35,647	585	6,920	21,600	367.6	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	431.9	8.2	18,178
2015	1,657	38,446	689	9,453	24,728	460.9	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

* Amounts in Thousands ** Amounts in Millions

Wyoming State Highway Patrol, Game & Fish, and Criminal Investigator Pension Plan								
Added to Rolls			Removed from Rolls					
Year	Number	\$ Annual Pension Benefits	Number	\$ Annual Pension Benefits	Rolls-End of Year Number	\$ Annual Pension Benefit	% Change in Annual Pension Benefit	\$ Average Annual Pension Benefit
2009	13	505,243	5	117,846	258	6,262,885	6.6	24,275
2010	15	705,497	5	82,482	268	6,885,900	10	25,694
2011	15	576,180	3	48,554	280	7,413,526	7.7	26,477
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

Volunteer Firefighter & EMT Pension Plan								
Added to Rolls			Removed from Rolls					
Year	Number	\$ Annual Pension Benefits	Number	\$ Annual Pension Benefits	Rolls-End of Year Number	\$ Annual Pension Benefit	% 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

* 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									
Added to Rolls			Removed from Rolls						
Year	Number	\$ Annual Pension Benefits	Number	\$ Annual Pension Benefits	Rolls-End of Year Number	\$ Annual Pension Benefit	% Change in Annual Pension Benefit	\$ Average Annual Pension Benefit	
2009	7	717,462	8	326,086	307	13,472,970	3	43,886	
2010	6	740,209	9	399,019	304	13,814,160	2.5	45,441	
2011	7	767,782	12	579,402	299	14,002,540	1.4	46,831	
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	

Paid Firemen's Pension Plans B									
Added to Rolls			Removed from Rolls						
Year	Number	\$ Annual Pension Benefits*	Number	\$ Annual Pension Benefits*	Rolls-End of Year Number	\$ Annual Pension Benefit**	% Change in Annual Pension Benefit	\$ Average Annual Pension Benefit	
2009	11	496,899	1	16,148	45	1,438,117	50.5	31,958	
2010	10	383,726	0	0	55	1,821,843	26.7	33,124	
2011	12	535,099	0	0	67	2,356,942	29.4	35,178	
2012	7	278,412	0	0	74	2,635,354	11.8	35,613	
2013	7	274,075	0	0	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	0	0	115	4,662,401	18.5	40,543	
2017	14	587,654	1	12,361	128	5,237,694	12.3	40,919	

Judicial Pension Plan									
Added to Rolls			Removed from Rolls						
Year	Number	\$ Annual Pension Benefits*	Number	\$ Annual Pension Benefits*	Rolls-End of Year Number	\$ Annual Pension Benefit**	% Change in Annual Pension Benefit	\$ Average Annual Pension Benefit	
2009	1	72,878	0	0	10	616,974	13.4	61,697	
2010	3	127,495	2	133,897	11	610,572	-1	55,507	
2011	0	0	0	0	11	610,572	0	55,507	
2012	0	0	0	0	11	610,572	0	55,507	
2013	2	113,010	0	0	13	723,582	18.5	55,660	
2014	3	107,248	0	0	16	830,830	14.8	51,927	
2015	2	150,491	0	0	18	981,321	18.1	54,518	
2016	0	0	0	0	18	981,321	0.0	54,518	
2017	4	307,625	0	0	22	1,288,946	31.4	58,588	

Schedule of Retirees & Beneficiaries Added to & Removed from Rolls

Law Enforcement Pension Plan								
Added to Rolls			Removed from Rolls					
Year	Number	\$ Annual Pension Benefits*	Number	\$ Annual Pension Benefits*	Rolls-End of Year Number	\$ Annual Pension Benefit**	% Change in Annual Pension Benefit	\$ Average Annual Pension Benefit
2009	55	1,154,341	9	-65,125	656	14,694,975	8	22,401
2010	75	1,881,618	12	-109,159	719	16,467,434	12	22,903
2011	93	2,330,905	7	-101,024	805	18,697,315	13.5	23,226
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

Air Guard Firefighters Pension Plan								
Added to Rolls			Removed from Rolls					
Year	Number	\$ Annual Pension Benefits*	Number	\$ Annual Pension Benefits*	Rolls-End of Year Number	\$ Annual Pension Benefit**	% Change in Annual Pension Benefit	\$ Average Annual Pension Benefit
2010	0	0	0	0	2	40,129	0	20,065
2011	0	0	0	0	2	40,129	0	20,065
2012	0	0	0	0	2	40,129	0	20,065
2013	1	46,109	0	0	3	86,238	114.9	28,746
2014	2	66,242	0	0	5	152,480	76.8	30,496
2015	1	40,663	0	0	6	193,143	26.7	32,191
2016	3	138,890	0	0	9	332,033	71.9	36,893
2017	1	32,744	0	0	10	364,776	9.9	36,478

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 Retirement 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
1/1/2012	1,226,273	3,455,741	2,355,173	5,761,222	100%	100%	45.80%
1/1/2013	1,286,010	3,724,948	2,308,247	5,749,968	100%	100%	32.00%
1/1/2014	1,333,533	4,251,120	2,460,394	6,244,502	100%	100%	26.80%
1/1/2015	1,394,083	4,600,840	2,375,744	6,609,612	100%	100%	25.90%
1/1/2016	1,472,112	4,897,375	2,343,866	6,814,920	100%	100%	19.00%
1/1/2017	1,491,205	5,255,364	2,292,735	7,063,052	100%	100%	13.80%
1/1/2018	1,504,862	5,994,582	2,089,209	7,314,683	100%	97%	0.00%

* 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
1/1/2012	27,073	77,423	28,945	6,118	100%	100%	5.60%
1/1/2013	27,760	79,144	28,676	106,038	100%	96%	0.00%
1/1/2014	31,224	87,447	31,318	116,151	100%	97%	0.00%
1/1/2015	32,458	93,060	30,684	123,681	100%	98%	0.00%
1/1/2016	33,664	100,994	29,864	128,598	100%	94%	0.00%
1/1/2017	25,855	103,925	29,471	134,609	100%	95%	0.00%
1/1/2018	36,388	119,189	25,035	140,712	100%	88%	0.00%

* Amounts in Thousands

Solvency Test

Volunteer Firefighter & EMT 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%	27.70%
1/1/2017	5,468	61,195	35,583	78,177	100%	100%	32.40%
1/1/2018	5,545	67,352	36,195	81,169	100%	100%	22.90%

The Volunteer Firefighter & Emergency Medical Technician Plans were consolidated on July 1, 2015.

* 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
1/1/2012	226	189,373	6,085	153,371	100%	80.90%	0.00%
1/1/2013	226	188,733	6,240	139,181	100%	73.60%	0.00%
1/1/2014	96	203,199	2,960	140,917	100%	69.30%	0.00%
1/1/2015	96	202,385	2,735	138,088	100%	68.20%	0.00%
1/1/2016	96	201,512	3,081	30,776	100%	64.80%	0.00%
1/1/2017	79	202,702	3,171	124,435	100%	61.30%	0.00%
1/1/2018	47	226,793	2,487	117,019	100%	51.60%	0.00%

*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
1/1/2012	11,511	29,264	37,989	86,130	100%	100%	119.40%
1/1/2013	12,909	32,551	50,005	91,248	100%	100%	114.50%
1/1/2014	14,398	36,923	53,304	103,693	100%	100%	98.30%
1/1/2015	16,382	41,354	57,416	115,323	100%	100%	100.30%
1/1/2016	17,298	50,930	57,713	124,496	100%	100%	97.50%
1/1/2017	18,890	57,946	58,399	134,451	100%	100%	98.70%
1/1/2018	20,129	70,763	60,090	144,816	100%	100%	89.70%

* Amounts in Thousands

Solvency Test

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
1/1/2012	4,310	5,520	5,829	16,748	100%	100%	100.00%
1/1/2013	4,846	5,300	6,780	17,549	100%	100%	100.00%
1/1/2014	5,203	6,682	7,780	20,261	100%	100%	100.00%
1/1/2015	5,800	7,659	7,784	22,728	100%	100%	100.00%
1/1/2016	6,235	9,046	7,724	24,634	100%	100%	100.00%
1/1/2017	7,019	8,860	8,581	26,773	100%	100%	100.00%
1/1/2018	6,833	12,686	9,567	29,063	100%	100%	99.70%

* 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
1/1/2012	106,872	210,367	123,266	422,203	100%	100%	85.20%
1/1/2013	116,003	229,727	127,815	437,235	100%	100%	71.60%
1/1/2014	121,916	260,467	144,399	486,818	100%	100%	72.30%
1/1/2015	128,199	286,400	149,643	528,543	100%	100%	76.10%
1/1/2016	133,912	309,474	153,470	557,126	100%	100%	74.10%
1/1/2017	137,265	335,397	155,423	590,466	100%	100%	75.80%
1/1/2018	140,029	389,302	179,627	625,562	100%	100%	53.60%

* Amounts in Thousands

Air Guard Firefighters 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
1/1/2012	2,691	571	1,119	3,751	100%	100%	43.70%
1/1/2013	3,102	554	1,196	4,450	100%	100%	66.30%
1/1/2014	3,290	1,003	1,512	5,175	100%	100%	58.30%
1/1/2015	3,551	1,876	1,185	5,929	100%	100%	42.40%
1/1/2016	3,716	2,494	1,137	6,617	100%	100%	36.70%
1/1/2017	2,973	4,093	732	6,801	100%	94%	0.00%
1/1/2018	3,141	4,840	735	7,411	100%	88%	0.00%

* Amounts in Thousands

Solvency Test

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.

Analysis of Financial Experience

Gains & Losses in Accrued Liabilities during the Year Ended 12/31/2017

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 & EMT Pension Plan	Paid Firemen's Pension Plan A
Age & Service Retirements	(\$17,497,792)	\$9,003	\$8,418,233	\$96,383
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, a loss				
Disability Retirements	-361,225	-322,080	-	-
If disability claims are less than assumed, there is a gain. If more claims, a loss.				
Death-In-Service Benefits	-929,660	59,592	-22,701	19
If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.				
Withdrawal From Employment	-6,856,128	151,745	-720,934	-
If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases a loss.				
Rehires	-806,839	-	-72,481	-
New employees entering the plan will create a loss.				
Pay Increases	143,461,169	3,455,418	-	-
If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.				
Contribution Income	-33,838,721	-732,606	389,948	-12,189,097
If more contributions are received than expected, there is a gain. If less, a loss.				
Investment Income	-37,520,657	-737,082	-784,079	-932,217
If there is greater investment income than assumed, there is a loss. If not as long, a gain.				
Death After Retirement	-1,855,204	275,179	-56,672	-895,305
If retirees live longer than assumed, there is a loss. If not as long, a gain.				
Other	-20,185,103	-143,604	387,222	372,636
Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.				
Gain (Loss) During Year From Financial Experience	\$23,609,840	\$2,015,565	\$27,923,023	(\$13,547,581)

Analysis of Financial Experience

Gains & Losses in Accrued Liabilities during the Year Ended 12/31/2017

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 Firefighters Pension Plan
Age & Service Retirements	(\$196,748)	(\$552,884)	(\$1,273,009)	(\$12,854)

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, a loss

Disability Retirements	-91,300	797	(274,512)	989
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If disability claims are less than assumed, there is a gain. If more claims, a loss.

Death-In-Service Benefits	-415,910	9,983	-1,365,387	2,501
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If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.

Withdrawal From Employment	-41,531	-14,936	-1,554,016	-87,902
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If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases a loss.

Rehires	-	-	-173,628	-
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New employees entering the plan will create a loss.

Pay Increases	5,857,009	430,022	10,998,180	46,554
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If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.

Contribution Income	-519,251	414,010	1,567,728	181,588
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If more contributions are received than expected, there is a gain. If less, a loss.

Investment Income	-473,482	-158,108	-2,983,517	-47,431
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If there is greater investment income than assumed, there is a loss. If not as long, a gain.

Death After Retirement	-16,174	-133,488	2,351,258	-15,417
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If retirees live longer than assumed, there is a loss. If not as long, a gain.

Other	-166,532	-109,182	-629,298	-25,579
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Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.

Gain (Loss) During Year From Financial Experience	\$3,936,080	(\$113,787)	\$7,041,463	\$42,448
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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 (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
Public Employees Pension Plan:						
January 1, 2012	5,761,221,926	7,037,186,665	1,275,964,739	81.9	1,756,856,648	72.6
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
January 1, 2015	6,609,612,342	8,370,666,482	1,761,054,140	79	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
State Patrol, Game and Fish Warden and Criminal Investigator Pension Plan:						
January 1, 2012	106,117,900	133,440,800	27,322,900	79.5	24,389,987	112
January 1, 2013	106,067,552	137,580,636	31,513,084	77.1	24,424,919	129
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	79.3	24,646,258	140.6
January 1, 2018	140,712,382	180,615,436	39,903,054	77.9	23,639,756	168.8
Volunteer Firefighter & EMT 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

Note: The Volunteer Firefighter and Emergency Medical Technican Pension Plan was consolidated into one plan on July 1, 2015.

n/a - not applicable

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL)(b-a)	Funded Ratio as a (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
Paid Firemen's Pension Plan A:						
January 1, 2012	153,370,736	195,685,206	42,314,470	78.4	481,271	8,792.20
January 1, 2013	139,181,449	195,199,195	56,017,746	71.3	486,270	11,519.90
January 1, 2014	140,917,231	206,255,267	65,338,036	68.3	198,404	32,931.80
January 1, 2015	138,087,746	205,216,099	67,128,353	67.3	179,486	37,400.40
January 1, 2016	130,776,292	204,689,787	73,912,495	63.9	195,221	37,861.50
January 1, 2017	124,435,245	205,952,912	81,517,667	60.4	195,221	41,756.70
January 1, 2018	117,019,469	229,327,120	112,307,651	51	134,155	83,715.00

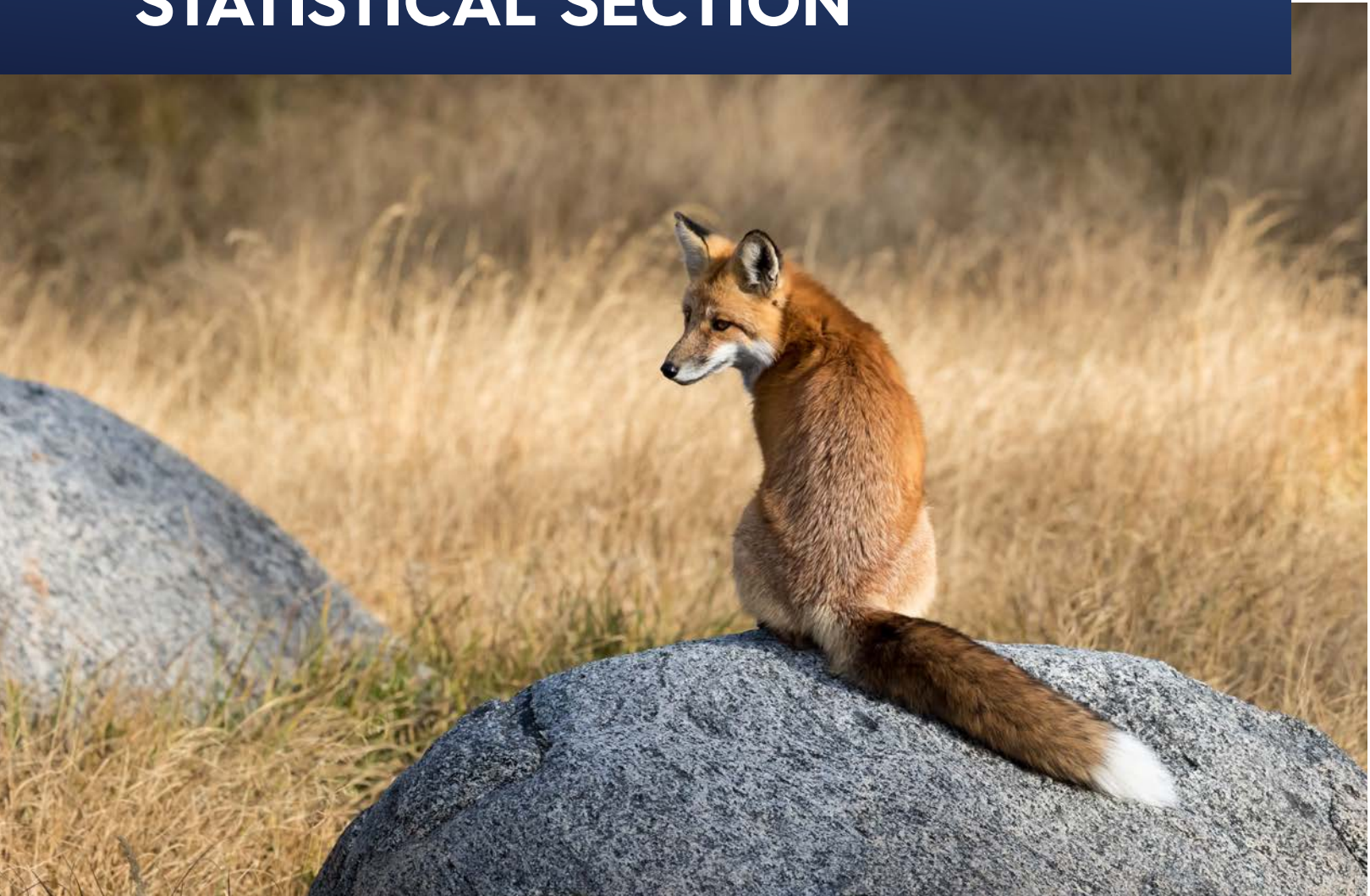
Schedule of Funding Progress

Paid Firemen's Pension Plan B:						
January 1, 2012	86,130,061	78,763,646	-7,366,415	109.4	22,678,277	-32.5
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	100.2	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
Judicial Pension Plan:						
January 1, 2012	16,747,907	15,657,847	-1,090,060	107	4,861,758	-22.4
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	6,213,775	-9.6
January 1, 2015	22,728,268	21,243,000	-1,485,268	107	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
Law Enforcement Pension Plan:						
January 1, 2012	422,202,959	440,504,864	18,301,905	95.9	155,481,933	11.8
January 1, 2013	437,235,498	473,544,657	36,309,158	92.3	157,764,488	23
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	160,072,828	23.5
January 1, 2018	625,562,038	708,957,832	83,395,794	88.2	155,696,162	53.6
Air Guard Firefighters Pension Plan: **						
January 1, 2012	3,750,702	4,380,850	630,148	85.6	1,522,749	41.4
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	89.2	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	2,208,407	59.1



Comprehensive Annual Financial Report 2017

STATISTICAL SECTION



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Statistical Section Introduction

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 2008 – 2017 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.

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 2017 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, 2017, and a reconciliation of the number of retirees for the year ended December 31, 2017. 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 plan and the names of the participating employers.

Changes in Fiduciary Net Position

Public Employee Pension Plan	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions(Deletions) by Source										
Employee Contributions	\$145,008	\$147,650	\$147,360	\$137,145	\$122,611	\$119,052	\$116,692	\$99,352	\$89,353	\$84,814
Employer Contributions	147,037	149,619	142,666	127,930	122,137	121,027	118,652	101,296	90,645	85,938
Investment Income(loss)	923,878	454,713	(67,156)	314,706	780,556	723,468	(63,533)	638,060	903,211	(1,640,841)
Other Income	6,454	6,642	8,126	5,614	6,141	3,621	3,905	3,526	153,568	2,513
Total	1,222,377	758,624	230,996	585,395	1,031,445	967,168	175,716	842,234	1,236,777	(1,467,576)
Deductions by Type										
Benefits										
Member	481,746	450,686	419,726	388,318	359,050	331,071	303,702	277,248	257,242	237,959
Beneficiary	35,091	32,796	30,864	29,957	28,387	26,296	25,035	23,616	22,178	20,871
Refunds	18,655	18,128	19,365	17,822	17,131	17,263	15,242	13,585	13,015	9,401
Other Expenses	313	312	313	75	-	-	3,324	-	-	-
Administrative Expenses	6,551	5,993	5,098	5,183	6,514	6,463	5,541	3,603	3,083	2,779
Total	542,356	507,915	475,366	441,355	411,082	381,093	352,844	318,052	295,518	271,010
Change in Plan Net Position	\$680,021	\$250,709	(\$244,370)	\$144,040	\$620,363	\$586,075	(\$177,128)	\$524,182	\$941,259	(\$1,738,586)

Note: Amounts in Thousands

State Patrol, Game and Fish Warden, and Criminal Investigator Pension Plan	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions(Deletions) by Source										
Employee Contributions	\$3,429	\$3,441	\$3,331	\$3,151	\$2,976	\$2,726	\$2,685	\$2,526	\$2,469	\$2,348
Employer Contributions	3,503	3,517	3,290	3,006	2,998	2,799	2,621	2,597	2,542	2,414
Investment Income(loss)	17,623	8,622	(1,199)	5,836	14,444	13,286	(1,153)	11,737	16,574	(30,633)
Other Income	107	294	259	231	355	177	178	99	116	135
Total	24,662	15,874	5,681	12,224	20,773	18,988	4,331	16,959	21,701	(25,736)
Deductions by Type										
Benefits										
Member	8,856	8,517	8,025	7,489	7,129	6,826	6,377	5,740	5,355	5,110
Beneficiary	939	880	901	876	765	753	749	741	717	694
Refunds	509	323	121	368	336	287	366	316	347	106
Other Expenses	6	6	6	1	-	-	-	-	-	-
Administrative Expenses	129	115	96	97	107	85	73	49	43	40
Total	10,439	9,841	9,149	8,831	8,337	7,951	7,565	6,846	6,462	5,950
Change in Plan Net Position	\$14,223	\$6,033	(\$3,468)	\$3,393	\$12,436	\$11,037	(\$3,234)	\$10,113	\$15,239	(\$31,686)

Note: Amounts in Thousands

Changes in Fiduciary Net Position

Volunteer Firefighter & EMT Pension Plan	2017	2016	2015
Additions(Deletions) by Source			
Employee Contributions	\$418	\$421	\$398
Employer Contributions	n/a	n/a	n/a
Investment Income(loss)	10,036	4940	(675)
Other Income	3,298	3,237	2,258
Total	13,752	8,598	1,981
Deductions by Type			
Benefits			
Member	5,138	3,696	4,288
Beneficiary	643	592	545
Refunds	33	35	35
Other Expenses	3	3	3
Administrative Expenses	89	73	73
Total	5,906	5,626	4,944
Change in Plan Net Position	(\$7,846)	\$2,972	(\$2,963)

Note: Amounts in Thousands

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

Paid Firefighter A Pension Plan	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
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)	\$15,352	\$8,160	(\$1,107)	\$6,980	\$18,324	\$18,404	(\$1,434)	\$18,317	\$27,997	(\$56,678)
Other Income	-	-	-	-	-	243	-	-	14	-
Total	15,352	8,160	(1,107)	6,980	18,324	18,647	(1,434)	18,317	28,011	(56,678)
Deductions by Type										
Benefits										
Member	11,996	11,851	11,874	11,981	11,972	12,043	11,686	11,730	11,074	10,771
Beneficiary	3,415	3,225	2,951	2,601	2,384	2,184	2,187	1,901	2,206	2,087
Refunds	-	-	-	-	-	-	-	-	-	-
Other Expenses	6	6	6	2	-	-	-	-	-	-
Administrative Expenses	109	110	103	113	130	102	91	64	61	59
Total	15,526	15,192	14,934	14,697	14,486	14,329	13,964	13,695	13,341	12,917
Change in Plan Net Position	(\$174)	(\$7,032)	(\$16,041)	(\$7,717)	\$3,838	\$4,318	(\$15,398)	\$4,622	\$14,670	(\$69,595)

Note: Amounts in Thousands

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

Changes in Fiduciary Net Position

Paid Firefighter B Pension Plan	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions(Deletions) by Source										
Employee Contributions	\$2,490	\$2,605	\$2,529	\$2,414	\$2,160	\$1,998	\$1,922	\$1,850	\$1,848	\$1,441
Employer Contributions	3,225	3,371	3,273	3,184	3,023	2,825	2,713	2,631	2,485	2,330
Investment Income(loss)	17,838	8,477	(1,159)	5,248	12,576	11,110	(962)	8,975	11,901	(20,315)
Other Income	289	254	397	266	30	7	-	8	6	-
Total	23,842	14,707	5,040	11,112	17,789	15,940	3,673	13,464	16,240	(16,544)
Deductions by Type										
Benefits										
Member	4,710	4,084	3,452	2,817	2,633	2,321	1,876	1,508	1,091	679
Beneficiary	345	260	260	274	199	199	135	135	135	115
Refunds	120	72	75	63	84	109	38	38	38	71
Other Expenses	5	6	5	1	-	-	-	-	-	-
Administrative Expenses	131	112	91	87	97	67	53	33	28	25
Total	5,311	4,534	3,883	3,242	3,013	2,696	2,102	1,714	1,292	890
Change in Plan Net Position	\$18,531	\$10,173	\$1,157	\$7,870	\$14,776	\$13,244	\$1,571	\$11,750	\$14,948	(\$17,434)

Note: Amounts in Thousands

Judicial Pension Plan	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions(Deletions) by Source										
Employee Contributions	\$604	\$589	\$585	\$583	\$551	\$345	\$429	\$422	\$409	\$397
Employer Contributions	949	926	921	917	866	610	675	663	643	462
Investment Income(loss)	3549	1,679	(228)	1,027	2,432	2,137	(175)	1,748	2,330	(3,982)
Other Income	-	-	-	-	-	-	-	-	1	846
Total	5,102	3,194	1,278	2,527	3,849	3,092	929	2,833	3,383	(2,277)
Deductions by Type										
Benefits										
Member	1078	892	843	687	608	544	544	557	573	485
Beneficiary	89	89	89	89	67	67	67	67	-	-
Refunds	-	-	-	-	-	98	-	-	-	-
Other Expenses	2	1	1	-	-	-	-	-	-	-
Administrative Expenses	25	22	18	17	17	14	9	6	5	10
Total	1194	1,004	951	793	692	723	620	630	578	495
Change in Plan Net Position	\$3,908	\$2,190	\$327	\$1,734	\$3,157	\$2,369	\$309	\$2,203	\$2,805	(\$2,772)

Note: Amounts in Thousands

Changes in Fiduciary Net Position

Law Enforcement Pension Plan	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions(Deletions) by Source										
Employee Contributions	\$13,285	\$13,460	\$14,569	\$13,314	\$13,044	\$12,964	\$12,839	\$12,811	\$11,868	\$11,268
Employer Contributions	13,320	13,454	12,468	13,308	13,009	12,972	12,826	12,752	11,295	11,232
Investment Income(loss)	77,947	37,783	(5,372)	24,588	59,946	53,843	(4,747)	44,882	60,764	(107,883)
Other Income	701	1,258	1,068	803	550	392	671	415	484	629
Total	105,253	65,955	22,733	52,013	86,549	80,171	21,589	70,860	84,411	(84,754)
Deductions by Type										
Benefits										
Member	27,550	26,002	23,912	21,650	20,036	18,418	16,718	14,863	13,353	12,228
Beneficiary	2,072	1,872	1,547	1,560	1,256	1,220	1,135	948	884	791
Refunds	4,041	3,491	4,660	4,110	4,426	3,576	2,815	2,845	2,549	2,018
Other Expenses	52	26	25	6	-	-	-	-	-	-
Administrative Expenses	580	518	418	408	470	417	345	219	185	158
Total	34,295	31,909	30,562	27,734	26,188	23,631	21,013	18,875	16,971	15,195
Change in Plan Net Position	\$70,958	\$34,046	(\$7,829)	\$24,279	\$60,361	\$56,540	\$576	\$51,985	\$67,440	(\$99,949)

Note: Amounts in Thousands

Air Guard Firefighter Pension Plan	2017	2016	2015	2014	2013	2012	2011	2010	2009
Additions(Deletions) by Source									
Employee Contributions	\$367	\$320	\$370	\$336	\$310	\$256	\$241	n/a	n/a
Employer Contributions	156	137	158	142	133	109	103	n/a	n/a
Investment Income	902	431	(55)	258	595	485	(223)	n/a	n/a
Other Income	-	57	35	1	-	121	3,324	n/a	n/a
Total	1425	945	508	737	1,038	971	3,445	n/a	n/a
Deductions by Type									
Benefits									
Member	351	291	168	120	74	43	37	n/a	n/a
Beneficiary	-	-	-	-	-	-	-	n/a	n/a
Refunds	40	412	21	7	14	-	-	n/a	n/a
Other Expenses	1	-	-	-	-	-	-	n/a	n/a
Administrative Expenses	6	6	5	4	5	3	3	n/a	n/a
Total	398	709	194	131	93	46	40	n/a	n/a
Change in Plan Net Position	\$1,027	\$236	\$314	\$606	\$945	\$925	\$3,405	n/a	n/a

Note: Amounts in Thousands

n/a: The Wyoming Air Guard Firefighters Plan was separated from the Public Employees Pension Plan effective January 1, 2011.

Changes in Fiduciary Net Position

Deferred Compensation 457 Plan										
	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions(Deletions) by Source										
Contributions	\$45,366	\$42,431	\$41,043	\$39,589	\$41,338	\$37,539	\$37,005	\$35,881	\$33,063	\$31,836
Investment Income	78,394	36,980	(3,504)	24,077	59,382	35,654	978	31,263	40,535	(49,092)
Other Income	(4)	99	177	146	148	210	195	175	113	184
Total	123,756	79,510	37,716	63,812	100,868	73,403	38,178	67,319	73,711	(17,072)
Deductions by Type										
Benefits	34,399	30,786	33,788	28,231	27,992	22,972	18,237	18,430	12,442	15,935
Administrative Expenses	871	802	682	856	848	854	794	741	578	568
Total	35,270	31,588	34,470	29,087	28,840	23,826	19,031	19,171	13,020	16,503
Change in Plan Net Position	\$88,486	\$47,922	\$3,246	\$34,725	\$72,028	\$49,577	\$19,147	\$48,148	\$60,691	(\$33,575)

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
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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:	\$82,083							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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							
2011	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	945	3,042	3,042	3,004	2,690	2,917	2,341	692
Average Benefit	\$191	\$362	\$643	\$1,016	\$1,477	\$2,214	\$2,942	\$3,666
Ave Final Ave Salary	\$49,951							
2010	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	904	2,938	2,945	2,924	2,578	2,730	2,158	627
Average Benefit	\$178	\$356	\$630	\$991	\$1,442	\$2,162	\$2,859	\$3,535
Ave Final Ave Salary:	\$49,426							
2009	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	881	2,863	2,904	2,864	2,465	2,528	1,993	569
Average Benefit	\$177	\$352	\$620	\$971	\$1,402	\$2,092	\$2,808	\$3,434
Ave Final Ave Salary	<i>Final Average Salary not available before 2010</i>							
2008	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	973	3,156	3,223	3,124	2,621	2,618	2,048	570
Average Benefit	\$195	\$346	\$608	\$946	\$1,356	\$1,999	\$2,698	\$3,328
Ave Final Ave Salary	<i>Final Average Salary not available before 2010</i>							

Schedule of Monthly Benefit Payments

State Highway Patrol, Game & Fish Warden and Criminal Investigator Pension Plan								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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							
2011	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	5	23	13	27	54	56	40	10
Average Benefit	\$1,377	\$1,378	\$1,962	\$1,761	\$2,187	\$2,686	\$3,372	\$4,041
Ave Final Ave Salary	\$77,942							
2010	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	21	11	27	51	57	36	10
Average Benefit	\$1,673	\$1,259	\$1,838	\$1,768	\$2,095	\$2,576	\$3,248	\$4,041
Ave Final Ave Salary:	\$91,818							
2009	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	21	11	28	50	56	31	9
Average Benefit	\$1,673	\$1,259	\$1,838	\$1,667	\$1,989	\$2,486	\$2,846	\$3,918
Ave Final Ave Salary	<i>Average Final Average Salary not available before 2010</i>							

Note: Data was not available for the above plan until 2009

Schedule of Monthly Benefit Payments

Volunteer Firefighter & EMT Pension Plan								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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:	<i>Benefits In This Plan Not Based on Salary</i>							
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:	<i>Benefits In This Plan Not Based on Salary</i>							
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:	<i>Benefits In This Plan Not Based on Salary</i>							
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:	<i>Benefits In This Plan Not Based on Salary</i>							
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	<i>Benefits In This Plan Not Based on Salary</i>							
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
2011	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	61	68	187	179	179	106	63	8
Average Benefit	\$287	\$176	\$212	\$261	\$318	\$393	\$468	\$555
Ave Final Ave Salary	<i>Benefits In This Plan Not Based on Salary</i>							
2010	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	62	68	181	164	169	91	51	7
Average Benefit	\$291	\$177	\$213	\$262	\$317	\$400	\$469	\$551
Ave Final Ave Salary:	<i>Benefits In This Plan Not Based on Salary</i>							
2009	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	63	66	180	159	139	80	42	5
Average Benefit	\$289	\$179	\$214	\$264	\$320	\$404	\$469	\$564
Ave Final Ave Salary	<i>Benefits In This Plan Not Based on Salary</i>							

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.

Note: Data was not available for the above plan until 2009.

Schedule of Monthly Benefit Payments

Paid Firefighter Pension Plan A								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
2017	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	0	1	14	9	116	49	20	5
Average Benefit	\$0	\$1,947	\$2,622	\$4,170	\$4,583	\$5,479	\$5,707	\$5,977
Ave Final Ave Salary:	<i>No new retirees in 2016</i>							
2016	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	0	1	14	9	118	50	21	4
Average Benefit	\$0	\$1,890	\$2,546	\$4,048	\$4,452	\$5,304	\$5,610	\$5,943
Ave Final Ave Salary:	n/a							
2015	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	0	1	14	9	120	51	21	4
Average Benefit	\$0	\$1,835	\$2,472	\$3,931	\$4,328	\$5,170	\$5,453	\$5,770
Ave Final Ave Salary:	\$83,862							
2014	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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							
2011	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	9	1	16	11	136	53	19	3
Average Benefit	\$3,703	\$1,631	\$2,173	\$3,456	\$3,851	\$4,614	\$4,904	\$5,151
Ave Final Ave Salary	\$77,942							
2010	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	9	1	16	12	142	53	20	4
Average Benefit	\$3,595	\$1,583	\$2,110	\$3,396	\$3,742	\$4,480	\$4,751	\$5,104
Ave Final Ave Salary:	\$91,818							
2009	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	9	2	14	12	144	55	17	3
Average Benefit	\$3,490	\$1,227	\$2,085	\$3,297	\$3,635	\$4,335	\$4,421	\$4,516
Ave Final Ave Salary	<i>Average Final Average Salary not available before 2010</i>							

Note: Data was not available for the above plan until 2009

Schedule of Monthly Benefit Payments

Paid Firefighter Pension Plan B								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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							
2011	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	4	4	6	8	12	27	-	-
Average Benefit	\$1,667	\$1,583	\$1,883	\$1,895	\$2,883	\$4,115	-	-
Ave Final Ave Salary	\$70,181							
2010	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	3	3	5	7	10	21	-	-
Average Benefit	\$1,532	\$1,047	\$1,983	\$1,860	\$2,703	\$3,946	-	-
Ave Final Ave Salary:	\$68,396							
2009	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	3	1	5	7	8	15	-	-
Average Benefit	\$1,532	\$1,484	\$1,983	\$1,860	\$2,673	\$3,879	-	-
Ave Final Ave Salary	Average Final Average Salary not available before 2010							

Note: Data was not available for the above plan until 2009

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
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:	<i>No New Retirees in 2017</i>							
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:	<i>No new retirees in 2016</i>							
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:	<i>No New Retirees in 2014</i>							
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	<i>No New Retirees in 2012</i>							
2011	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	<i>No New Retirees in 2011</i>							
2010	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:	\$119,108							
2009	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	-	-	1	3	4	2	-	-
Average Benefit	-	-	\$3,014	\$4,926	\$5,425	\$5,960	-	-
Ave Final Ave Salary	New new retirees in 2009							

Note: Data was not available for the above plan until 2009

Schedule of Monthly Benefit Payments

Law Enforcement Pension Plan								
	Years of Service							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
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							
2011	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	158	70	64	70	235	88	29	2
Average Benefit	\$1,872	\$911	\$1,530	\$1,777	\$2,224	\$2,786	\$3,705	\$3,105
Ave Final Ave Salary	\$57,577							
2010	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	155	57	55	61	203	82	25	-
Average Benefit	\$1,891	\$967	\$1,495	\$1,681	\$2,170	\$2,782	\$3,670	-
Ave Final Ave Salary:	\$57,362							
2009	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 34
Number	155	48	46	60	182	74	19	-
Average Benefit	\$1,872	\$832	\$1,531	\$1,690	\$2,127	\$2,673	\$3,545	-
Ave Final Ave Salary	No new retirees in 2009							

Note: Data was not available for the above plan until 2009

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
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							
2011	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 2011							
2010	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:	\$20,065							

Note: Data was not available for this plan until 2010, as the plan had been included in the Public Employees Pension Plan

Pensions In Force

Public Employees Pension Plan

Pensions In Force as of December 31, 2017

By Monthly Amount	By Nearest Age	
Under \$ 200	Under 50	65
\$ 200 - \$ 399	50 - 54	130
\$ 400 - \$ 599	55 - 59	995
\$ 600 - \$ 799	60 - 64	4,191
\$ 800 - \$ 999	65 - 69	6,700
\$ 1,000 - \$ 1,499	70 - 74	5,746
\$ 1,500 - \$ 1,999	75 - 79	3,997
\$ 2,000 - \$ 2,499	80 - 84	2,621
\$ 2,500 & Over	85 & Over	2,383
Total	Total	26,808

Pensions By Payout Option

Pensioners:	Monthly Benefit			Count Elected Self-Funded COLA**					
	Male	Female	Total	Male	Female	Total	1%	2%	3%
Option 1	2,036	6,332	8,368	\$3,571,471	\$8,839,704	\$12,411,175	21	10	21
Option 2	4,474	3,318	7,792	9,306,744	5,350,497	14,657,241	12	13	23
Option 3	501	548	1,049	1,177,200	901,626	2,078,826	2	2	1
Option 4a	319	584	903	499,162	795,868	1,295,030	3	-	5
Option 4b	38	59	97	71,477	88,195	159,672	3	3	2
Option 5	503	1,477	1,980	763,707	1,856,234	2,619,941	6	4	3
Option 2P	1,389	1,906	3,295	2,556,113	3,368,426	5,924,540	6	9	13
Option 3P	300	572	872	721,164	1,217,688	1,938,852	4	-	5
Total	9,560	14,796	24,356	\$18,667,038	\$22,418,238	\$41,085,277	57	45	74
Beneficiaries	537	1,915	2,452	554,751	2,369,526	2,924,277	-	-	-
Total	10,097	16,711	26,808	\$19,221,789	\$24,787,764	\$44,009,554	57	45	74

** 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 Continued

Pensions Awarded During 2017	Total	Option 1	Option 2	Option 2P	Option 3	Option 3P	Option 4	Option 5
Under \$200	66	21	11	5	1	1	0	27
\$200 - \$399	172	48	42	23	2	3	10	44
\$400 - \$599	146	51	27	21	2	2	6	37
\$600 - \$799	123	40	30	13	6	4	5	25
\$800 - \$999	132	39	36	16	2	4	8	27
\$1,000 - \$1,499	267	67	73	41	8	5	18	55
\$1,500 - \$1,999	184	43	54	23	14	3	6	25
\$2,000 - \$2,499	149	41	50	19	3	6	2	28
\$2,500 & Over	567	134	223	82	22	28	18	60
Total	1,806	484	546	243	60	56	73	328

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

Pensions In Force as of December 31, 2017

By Monthly Amount		By Nearest Age	
Under \$ 200	1	Under 50	12
\$ 200 - \$ 399	3	50 - 54	32
\$ 400 - \$ 599	8	55 - 59	34
\$ 600 - \$ 799	18	60 - 64	65
\$ 800 - \$ 999	10	65 - 69	65
\$ 1,000 - \$ 1,499	55	70 - 74	43
\$ 1,500 - \$ 1,999	39	75 - 79	35
\$ 2,000 - \$ 2,499	46	80 - 84	25
\$ 2,500 & Over	150	85 & Over	19
Total	330	Total	330

Volunteer Firefighter & EMT Pension Plan

Pensions In Force as of December 31, 2017

By Monthly Amount		By Nearest Age	
Under \$ 50	0	Under 60	0
\$ 50 - \$ 99	14	60 - 64	311
\$100 - \$149	44	65 - 69	347
\$150 - \$199	96	70 - 74	249
\$200 - \$249	150	75 - 79	140
\$250 - \$299	100	80 & Over	136
\$300 - \$349	120		
\$350 - \$399	134		
\$400 & Over	525		
Total	1,183	Total	1,183

Pensions In Force

Paid Firefighter Pension Plan A

Pensions In Force as of December 31, 2017

By Monthly Amount		By Nearest Age	
Under \$ 200	0	Under 50	0
\$ 200 - \$ 399	1	50 - 54	1
\$ 400 - \$ 599	0	55 - 59	24
\$ 600 - \$ 799	0	60 - 64	65
\$ 800 - \$ 999	1	65 - 69	52
\$ 1,000 - \$ 1,499	3	70 - 74	41
\$ 1,500 - \$ 1,999	3	75 - 79	42
\$ 2,000 - \$ 2,499	12	80 - 84	28
\$ 2,500 & Over	261	85 & Over	28
Total	281	Total	281

Paid Firefighter Pension Plan B

Pensions In Force as of December 31, 2017

By Monthly Amount		By Nearest Age	
Under \$ 200	0	Under 50	8
\$200-\$399	0	50 - 54	21
\$400-\$599	1	55 - 59	49
\$600-\$799	2	60 - 64	34
\$800-\$999	2	65 - 69	13
\$1,000-\$1,499	7	70 - 74	2
\$1,500-\$1,999	13	75 - 79	1
\$2,000-\$2,499	17	80 - 84	0
\$ 2,500 & Over	86	85 & Over	0
Total	128	Total	128

Judicial Pension Plan

Pensions In Force as of December 31, 2017

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	0
\$800-\$999	0	65 - 69	4
\$1,000-\$1,499	0	70 - 74	0
\$1,500-\$1,999	0	75 - 79	0
\$2,000-\$2,499	0	80 - 84	0
\$2,500 & Over	4	85 & Over	0
Total	4	Total	4

Pensions In Force

Law Enforcement Pension Plan

Pensions In Force as of December 31, 2017

By Monthly Amount		By Nearest Age	
Under \$ 200	9	Under 50	113
\$ 200 - \$ 399	51	50 - 54	112
\$ 400 - \$ 599	60	55 - 59	166
\$ 600 - \$ 799	54	60 - 64	273
\$ 800 - \$ 999	44	65 - 69	280
\$ 1,000 - \$ 1,499	122	70 - 74	162
\$ 1,500 - \$ 1,999	191	75 - 79	61
\$ 2,000 - \$ 2,499	256	80 - 84	22
\$ 2,500 & Over	415	85 & Over	13
Total	1,202	Total	1,202

Air Guard Firefighter Pension Plan

Pensions In Force as of December 31, 2017

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	0
\$ 1,000 - \$ 1,499	0	70 - 74	0
\$ 1,500 - \$ 1,999	0	75 - 79	0
\$ 2,000 - \$ 2,499	0	80 - 84	0
\$ 2,500 & Over	1	85 & Over	0
Total	1	Total	1

Member and Benefit Recipient Statistics

	Public Employees	Warden & Patrol	Volunteer Firefighter & EMT's	Paid Firemen Plan A	Paid Firemen Plan B	Judicial Plan	Law Enforcement	Air Guard Firefighters
Active Members – 12/31/2017	35,013	304	2,318	2	363	47	2,661	38
Retirement Benefits:								
Total receiving retirement benefits on December 31, 2016	25,768	323	1,375	282	115	18	1,147	9
Total added to rolls in 2017	1,806	19	99	6	14	4	83	1
Total removed from rolls in 2017	766	12	41	7	1	0	28	0
Total receiving retirement benefits - December 31, 2017	26,808	330	1,433	281	128	22	1,202	10
Total paid in retirement benefits in 2017 (amounts in millions)	\$516.80	\$9.80	\$5.80	\$15.40	\$5.10	\$1.20	\$29.60	\$0.40
Average monthly benefit	\$1,606	\$2,473	\$336	\$4,570	\$3,291	\$4,418	\$2,054	\$2,926

Active Membership

Public Employee Plan Active Membership by Year

	2017	Total	2016	Total	2015	Total	2014	Total	2013	Total
State	7,616	22%	7,681	20%	7,762	20%	7,866	21%	7,830	21%
University	1,017	3%	1,074	3%	1,174	3%	1,155	3%	1,113	3%
Community Colleges	1,360	4%	1,321	4%	1,350	4%	1,322	4%	1,334	4%
Schools	17,584	50%	18,369	50%	18,438	50%	18,230	50%	18,023	50%
Counties	2,436	7%	2,491	7%	2,583	7%	2,576	7%	2,518	7%
Libraries	396	1%	403	1%	434	1%	426	1%	446	1%
Cities & Towns	2,412	7%	2,465	7%	2,580	7%	2,525	7%	2,495	7%
Weed & Pest	86	0%	105	0%	117	0%	118	0%	109	0%
Irrigation Districts	64	0%	70	0%	65	0%	68	0%	66	0%
Others	2,042	6%	1,913	7%	2,074	7%	2,203	7%	2,420	7%
Totals	35,013	100%	35,892	100%	36,577	100%	36,489	100%	36,354	100%

	2012	Total	2011	Total	2010	Total	2009	Total	2008	Total
State	7,926	22%	8,001	22%	8,011	22%	8,022	23%	8,162	23%
University	1,099	3%	1,085	3%	1,075	3%	1,083	3%	1,116	3%
Community Colleges	1,336	4%	1,322	4%	1,285	4%	1,266	4%	1,253	4%
Schools	17,735	49%	17,622	49%	17,366	48%	17,369	49%	17,212	49%
Counties	2,498	7%	2,436	7%	2,336	7%	2,206	6%	2,163	6%
Libraries	443	1%	440	1%	444	1%	467	1%	463	1%
Cities & Towns	2,469	7%	2,397	7%	2,402	7%	2,540	7%	2,542	8%
Weed & Pest	107	0%	103	0%	96	0%	99	0%	90	0%
Irrigation Districts	70	0%	57	0%	55	0%	56	0%	56	0%
Others	2,761	7%	2,607	7%	2,758	8%	2,485	7%	1,964	6%
Totals	36,444	100%	36,070	100%	35,828	100%	35,593	100%	35,021	100%

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	50	0	0	0	0	0	0	50
20 - 24	944	6	0	0	0	0	0	950
25 - 29	2,246	377	7	0	0	0	0	2,630
30 - 34	2,153	1,352	283	3	0	0	0	3,791
35 - 39	1,891	1,227	956	172	1	0	0	4,247
40 - 44	1,546	1,086	911	648	110	4	0	4,305
45 - 49	1,341	968	857	696	521	118	6	4,507
50 - 54	1,116	791	831	675	478	495	151	4,537
55 - 59	980	748	854	790	613	514	503	5,002
60 - 64	639	563	611	532	420	347	456	3,568
65 - 69	239	183	183	146	103	89	136	1,079
Over 70	115	63	55	38	21	15	40	347
Total	13,260	7,364	5,548	3,700	2,267	1,582	1,292	35,013

Average Age = 46.3

Average Service = 10.1

Affiliated Employers - Top Ten Largest Employers

The following schedules show the top ten largest employers within the Wyoming Retirement System for the last ten years.

12/31/2017

Public Employee Pension Plan	# of Employees	%
State of Wyoming	7,616	21.8%
Laramie County School District # 1	2,294	6.6%
Natrona County School District # 1	2,174	6.2%
Campbell County School District	1,707	4.9%
University of Wyoming	1,017	2.9%
Sweetwater County School District # 1	933	2.7%
Albany County School District	728	2.1%
Sheridan County School District # 2	577	1.6%
Uinta County School District # 1	531	1.5%
Fremont County School District # 25	505	1.4%
All Others	16,931	48.4%
Total	35,013	100.0%

12/31/2008

Public Employee Pension Plan	# of Employees	%
State of Wyoming	8,162	23.3%
Natrona County School District # 1	2,241	6.4%
Laramie County School District # 1	2,197	6.3%
Campbell County School District	1,577	4.5%
University of Wyoming	1,116	3.2%
Sweetwater County School District # 1	1,029	2.9%
Albany County School District	754	2.2%
Sheridan County School District # 2	607	1.7%
Uinta County School District # 1	537	1.5%
Sweetwater County School District # 2	501	1.4%
All Others	16,300	46.5%
Total	35,021	100.0%

12/31/2017

Warden, Patrol, & DCI Pension Plan	# of Employees	%
State of Wyoming	304	100.0%
Total	304	100.0%

12/31/2008

Warden, Patrol, & DCI Pension Plan	# of Employees	%
State of Wyoming	329	100.0%
Total	329	100.0%

12/31/2017

Volunteer Firefighter & EMT Pension Plan	# of Employees	%
Fremont County	145	6.3%
Campbell County	85	3.7%
Sublette County	76	3.3%
Cody	65	2.8%
Jackson Hole Fire	55	2.4%
Riverton	53	2.3%
Holly frontier	53	2.3%
Newcastle	49	2.1%
Powell	48	2.1%
Torrington	48	2.1%
All Others	1,642	70.8%
Total	2,319	100.0%

12/31/2015

Volunteer Firefighter & EMT Pension Plan	# of Employees	%
Fremont County	155	6.5%
Campbell County	99	4.2%
Sublette County	72	3.0%
Cody	67	2.8%
Jackson Hole Fire	61	2.6%
Sinclair Refinery	57	2.4%
Holly frontier	53	2.2%
Powell	51	2.1%
Lander	50	2.1%
Riverton	50	2.1%
All Others	1,664	69.9%
Total	2,379	100.0%

Note: Volunteer Firefighter & EMT Pension Plan Top ten information is not available before 2015.

Affiliated Employers - Top Ten Largest Employers

12/31/2017

Paid Firemen's Pension Plans A & B	# of Employees	%
City of Cheyenne	86	23.8%
City of Casper	69	19.1%
City of Laramie	44	12.2%
City of Rock Springs	33	9.1%
Natrona County	23	6.4%
Jackson/Teton County	23	6.4%
Campbell County	21	5.8%
City of Sheridan	16	4.4%
City of Rawlins	11	3.0%
Town of Mills	10	2.8%
All Others	25	6.9%
Total	361	100.0%

12/31/2008

Paid Firemen's Pension Plans A & B	# of Employees	%
City of Cheyenne	89	27.0%
City of Casper	74	22.4%
City of Laramie	42	12.7%
City of Rock Springs	31	9.4%
City of Sheridan	28	8.5%
Natrona County	21	6.4%
Campbell County	19	5.8%
City of Rawlins	11	3.3%
Natrona County Airport	6	1.8%
Uinta County	5	1.5%
All Others	4	1.2%
Total	330	100.0%

Note: Paid Firemen's Pension Plans A & B Top ten information is not available before 2008.

12/31/2017

Judicial Pension Plan	# of Employees	%
State of Wyoming	47	100.0%
Total	47	100.0%

12/31/2008

Judicial Pension Plan	# of Employees	%
State of Wyoming	39	100.0%
Total	39	100.0%

12/31/2017

Law Enforcement Pension Plan	# of Employees	%
State of Wyoming	690	25.4%
Laramie County	150	5.5%
Campbell County	127	4.7%
Natrona County	112	4.1%
City of Cheyenne	108	4.0%
City of Casper	103	3.8%
Freemont County	81	3.0%
Sweetwater County	70	2.6%
City of Gillette	68	2.5%
Sublett County	64	2.4%
All Others	1,142	42.1%
Total	2,715	100.0%

12/31/2008

Law Enforcement Pension Plan	# of Employees	%
State of Wyoming	614	23.9%
Laramie County	147	5.7%
Campbell County	116	4.5%
Natrona County	115	4.5%
City of Casper	108	4.2%
City of Cheyenne	106	4.1%
Sweetwater County	89	3.5%
Freemont County	86	3.4%
Sublett County	63	2.5%
City of Laramie	60	2.3%
All Others	1,062	41.4%
Total	2,566	100.0%

12/31/2017

Air Guard Firefighters Pension Plan	# of Employees	%
State of Wyoming	38	100.0%
Total	38	100.0%

12/31/2010

Air Guard Firefighters Pension Plan	# of Employees	%
State of Wyoming	24	100.0%
Total	24	100.0%

Note: Air Guard Firefighters Pension Plan Top ten information is not available before 2010.

Affiliated Employers - List of Employers By Plan

Public Employees Pension Plan

Cities & Towns

Afton	Dubois	LaGrange	Riverton
Alpine	East Thermopolis	Lander	Rock River
Baggs	Edgerton	Laramie	Rock Springs
Bairoil	Elk Mountain	Lingle	Rolling Hills
Bar Nunn	Encampment	Lovell	Saratoga
Basin	Evanston	Lusk	Sheridan
Bear River	Evansville	Lyman	Shoshoni
Big Piney	Fort Laramie	Marbleton	Sinclair
Buffalo	Frannie	Medicine Bow	Star Valley Ranch
Burns	Gillette	Meeteetse	Sundance
Byron	Glendo	Midwest	Ten Sleep
Casper	Glenrock	Mills	Thayne
Cheyenne	Green River	Moorcroft	Thermopolis
Chugwater	Greybull	Mountain View	Torrington
Cody	Guernsey	Newcastle	Upton
Cokeville	Hanna	Pine Bluffs	Wamsutter
Cowley	Hudson	Pine Haven	Wheatland
Deaver	Hulett	Pinedale	Worland
Diamondville	Jackson	Powell	Yoder
Dixon	Kaycee	Ranchester	
Douglas	Kemmerer	Rawlins	

Counties

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

Libraries

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

University and Colleges

Casper College	Eastern Wyoming College	Northern Wyoming College	University of Wyoming
Central Wyoming College	Laramie County Comm. College	Northwest College	Western Wyoming College

Irrigation Districts

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

Affiliated Employers - List of Employers By Plan

Afton/Lincoln Co. Airport	Converse County Aging Service	HOPE Agency Inc, Hot Springs Crisis Line	Park County Museum
Albany County Fair Board	Converse County Airport	Hot Springs Co. Cemetery Dist.	Pinedale Aquatic Center
Albany County SAFE Project	Converse County Coalition Against Violence	Hot Springs Co. Senior Citizens Ctr.	Pipeline Authority
Ark Regional Services	Converse County Conservation District	Jackson Hole Airport Board	Platte County Fair Board
Baggs Solid Waste	Converse County Senior Housing	Jamestown Rio Vista Water Sever Dist.	Platte County Housing Authority
Basin Authority Child Sup.	Converse Hope Center	Jim Gatchell Memorial Museum	Platte County Resource District
Big Horn County Solid Waste District	Crisis Intervention Services	Johnson County Fair Board	Popo Agie Conservation District
Big Horn Enterprises	Crisis Prevention & Response Center	Johnson County Solid Waste	Powell Recreation District
Big Horn Regional Joint Powers Board	Crook County Fair	Kemmerer Diamondville Joint Power Bd	Rendezvous Pointe
Big Piney Cemetery Dist.	Crook County Museum	Kemmerer Senior Citizens	Renew
Board of Public Utilities	Crook County Natural Resource Dist.	Lake Desmet Conserv. Dist.	Riverside Cemetery Dist.
Bridger Valley Joint Pwrs.	Crown Hill Cemetery Dist.	Lander Senior Citizens	Rock Spgs/Green River Sweetwater Co
Byron Solid Waste	Deaver-Frannie Cenetry Dist.	Laramie Co. Conservation	Rock Spgs/Sweetwater Co. Airport
Campbell Co. Cemetery Dist.	Dubois-Crowheart Conservation Dist.	Laramie Co. Fair Board	Saratoga-Encampment-Rawlins Conservation
Campbell Co. Conservation District	Eastern Laramie Co. Solid Waste Dist.	Laramie Regional Airport	Self Help Center
Campbell Co. Fire Dept. (Admin Personnel)	Eppson Center For Seniors	Laramie Rivers Conservation District	Senior Citizens Council
Campbell Co. Public Land DbA Cam-plex	Evanston Parks & Recreation	Lincoln Co. Fair Board	Sheridan Co. Conservation District
Campbell County Senior Center	Fremont Co. Assn. of Governments	Little Snake River Conservation District	Sheridan Co. Fair Assn.
Carbon County COVE	Fremont County Fair Board	Local Gov't Liability Pool	Sheridan Juvenile Justice Joint Powers
Carbon Co. Senior Service	Fremont County Museum	Magic City Enterprises	Sheridan Recreation Dist.
Central Wyoming Counseling Center	Fremont County Solid Waste	Meeteetse Conservation District	Shoshone Municipal Pipeline
Central Wyoming Senior Services	Glenrock Area Solid Waste Disposal Dist.	Meeteetse Recreation Dist.	Snowy Range Academy
Cheyenne Housing Auth.	Glenrock Cemetery District	Mountain View Cemetery District	Solutions For Life
Cheyenne Regional Airport Board	Glenrock Community Recreation Dist.	Natrona County Airport	South Big Horn Conservation Dist.
Child Development Services Fremont Co.	Glenrock Hospital Dist.	Natrona County Conservation Dist	South Big Horn Seniors Citizens, Inc.
Child Support Auth. - 6D	Goshen County Fair	Natrona County Fair	South Cheyenne Water & Sewer
Child Support Auth. - 4th JD	Goshen County Senior Friendship Ctr.	Natrona County Fire (Admin Personnel)	South Lincoln Special Cem.
Children's Advocacy Project	Green River/RS Joint Pwrs.	Natrona County Health Department	Southwest Counseling Svc.
Children's Learning Center	Greybull Recreation Dist.	Niobrara County Hospital District	Star Valley Conservation Dist.
City of Cheyenne-Laramie Co. Health Bd.	High Country Behavioral Health	North Platte Valley Conservation Dist.	Star Valley Senior Citizen, Inc.

Affiliated Employers - List of Employers By Plan

Other Special Districts			
Community Action Partnership/ Natrona Co.	High Country Joint Powers	Park County Drug Court	Sublette County Conservation District
Sublette County Fair Board	Sweetwater County Transit	Washakie County Solid Waste Dist. #1	Wyoming County Commissioners Assn.
Sublette County Rural Health Care	Ten Sleep Senior Center	Weston County Children's Ctr.	Wyoming Community Development Auth.
Sublette Co. SAFV Task Force	Teton Conservation Dist	Weston County Fair Board	Wyoming Education Assn.
SW Sublette Co. Pioneers	Teton Village Association	Weston County Museum District	Wyoming High School Activities
Sweetwater Co. Conservation District	Teton Village Water And Sewer District	Weston County Natural Resource District	Wyoming Lottery
Sweetwater Co. Dist. Board of Health	Thayne Senior Center	White Mountain Water & Sewer District	Wyoming Public Employees Assn.
Sweetwater Co. Fair Board	Treatment Court of Sweetwater County	Wind River Transportation Authority	Wyoming School Boards
Sweetwater County Museum	Uinta Co. Conserv. Dist.	Worland Senior Center	Wyoming Senior Citizens Inc.
Sweetwater County Recreation	Uinta Co. SAFV Task Force	Wyoming Association of Risk Management	Wyoming State Bar
Sweetwater County Solid Waste	Wardwell Water & Sewer District	Wyoming Child & Family Development Inc.	Yellowstone Regional Airport
Sweetwater County Solid Waste District 2	Washakie Co. Conserv. Dist	Wyoming Coalition Against Domestic Violence	
State of Wyoming			
Attorney General	Enterprise Technology Services	Judicial Dist 6	Secretary of State
AWEC Agency Fund 592	Environmental Quality	Judicial Dist 6b	State Auditor
Board of Cosmetology	Environmental Quality Council	Judicial Dist 6c	State Engineer
Board of CPA's	Fire Prevention	Judicial Dist 7a	State Lands & Investments
Board of Equalization	Game & Fish Commission	Judicial Dist 7b	State Parks & Cultural Resources
Board of Nursing	Geological Survey	Judicial Dist 7c	State Treasurer
Board of Occupational Therapy	Governor's Mansion	Judicial Dist 8a	Supreme Court
Board of Outfitters	Governor's Office	Judicial Dist 8b	Water Development Comm.
Board of Travel and Tourism	Insurance Department	Judicial Dist 9a	Wildlife & Natural Resources Trust Board
Commission on Judicial Conduct	Judicial Dist 1a	Judicial Dist 9b	Wyoming Board of Pharmacy
Community College Comm.	Judicial Dist 1b	Judicial Dist 9c	Wyoming Board of Professional Geologists
Department of A & I	Judicial Dist 1c	Legislative Service Off.	Wyoming Business Council
Department of Agriculture	Judicial Dist 2a	Medical Bd of Examiners- Bd of Med.	Wyoming Department of Corrections
Department of Audit	Judicial Dist 2b	Mixed Martial Arts Board	Wyoming Department of Transportation
Department of Education	Judicial Dist 3	Oil and Gas Commission	Wyoming Financial Ctr. Admin Hearings
Department of Family Services	Judicial Dist 3b	Pari-Mutuel Commission	Wyoming Livestock Board
Department of Health	Judicial Dist 3c	Professional Teaching Standards Board	Wyoming Military Department
Department of Revenue	Judicial Dist 4a	Public Defender	Wyoming Parole Board
Department of Workforce Services	Judicial Dist 4b	Public Service Commission	Wyoming Retirement System
District Attorney Dist #1	Judicial Dist 5a	Real Estate Commission	
District Attorney Dist #7	Judicial Dist 5b	School Facilities Commission	

Affiliated Employers - List of Employers By Plan

Schools

Albany County Schools	Fremont CSD #14	Lincoln CSD #2	PODER Academy Secondary School
Big Horn CSD #1	Fremont CSD #21	Natrona CSD #1	Sheridan CSD #1
Big Horn CSD #2	Fremont CSD #24	Niobrara CSD #1	Sheridan CSD #2
Big Horn CSD #3	Fremont CSD #25	Park CSD #1	Sheridan CSD #3
Big Horn CSD #4	Fremont CSD #38	Park CSD #6	Sublette CSD #1
Campbell County Schools	Fremont/Wind River CSD #6	Park CSD #16	Sublette CSD #9
Carbon CSD #1	Goshen CSD #1	Platte CSD #1	Sweetwater CSD #1
Carbon CSD #2	Hot Springs CSD #1	Platte CSD #2	Sweetwater CSD #2
Converse CSD #1	Johnson CSD #1	Washakie CSD #1	Teton County Schools
Converse CSD #2	Laramie CSD #1	Washakie CSD #2	Uinta CSD #1
Crook County Schools	Laramie CSD #2	Weston CSD #1	Uinta CSD #4
Fremont CSD #1	Laramie Montessori	Weston CSD #7	Uinta CSD #6
Fremont CSD #2	Lincoln CSD #1	PODER Academy	

Weed & Pest

Albany County Weed & Pest	Fremont Co. Weed & Pest	Natrona County Weed & Pest Control Dist.	Sweetwater Co. Weed & Pest
Big Horn Co. Weed & Pest	Goshen Co. Weed & Pest	Niobrara County Weed & Pest	Teton County Weed & Pest
Campbell County Weed & Pest	Hot Springs Weed & Pest	Park County Weed & Pest	Uinta County Weed & Pest
Carbon Co. Weed & Pest	Johnson County Weed & Pest	Platte Co. Weed & Pest	Washakie Co. Weed & Pest
Converse County Weed & Pest	Laramie Co. Weed & Pest	Sheridan Co. Weed & Pest	Weston County Weed & Pest
Crook Co. Weed & Pest	Lincoln Co. Weed & Pest	Sublette Co. Weed & Pest	Board of Cooperative Educational Services

Board of Cooperative Educational Services

Region V Bd. of Coop. Educational Svcs.	Uinta BOCES #1	Board of Cooperative Educational Services	Northeast Wyoming BOCES
Sublette BOCES	Uinta Co. BOCES #4,#6	Carbon Co. Higher Education	NW Wyoming Board of Coop Ed Serv.
Sweetwater BOCES	Western/Sublette Co. #9 BOCES	Fremont County BOCES	Oyster Ridge BOCES
			Powell Valley Community Education

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

WY Attorney General's Office	WY Game & Fish Commission	WY Department of Transportation
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Paid Fireman Plan A

City Of Casper	City Of Rock Springs
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Paid Fireman Plan B

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

Affiliated Employers - List of Employers By Plan

Volunteer Firefighter and EMT Plan			
Afton Volunteer Fire Dept.	Fort Laramie Volunteer Fire Dept.	Lingle Volunteer Fire Dept.	South Lincoln Vol Fire Dept.
Albany County Volunteer Fire Dept.	Fremont Co. Fire Protection District	Little Snake River - EMT	Star Valley Medical Center - EMT
Albin Volunteer Fire Dept.	Glendo Volunteer Ambulance - EMT	Lovell Volunteer Fire Dept.	Story Volunteer Fire Dept.
Alpine Volunteer Fire Dept.	Glendo Volunteer Fire Dept.	Lusk Volunteer Fire Dept.	Sublette County Unified Fire
Antelope Gap Rural Fire District	Glenrock Volunteer Fire Dept.	Manderson Volunteer Fire Dept.	Sundance Volunteer Fire Dept.
Bairoil Volunteer Fire Dept.	Granger Volunteer Fire Dept.	Medicine Bow Volunteer Fire Dept.	Superior Volunteer Fire Department
Bar Nunn Volunteer Fire Dept.	Green River Volunteer Fire Dept.	Meeteetse Volunteer Fire Dept.	Sweetwater Co. Volunteer Fire Dept.
Big Horn #1 Volunteer Fire Dept.	Greybull Volunteer Fire Dept.	Mills Volunteer Fire Dept.	Sweetwater Dist. 1 Volunteer Fire Dept.
Big Horn Co Volunteer Fire - District 5	Guernsey Ambulance Service - EMT	Moorcroft Volunteer Fire Dept.	Ten Sleep Ambulance Service - EMT
Big Horn Co. Volunteer Fire Dept.	Guernsey Rural Fire District	Newcastle Volunteer Fire Dept.	Ten Sleep Volunteer Fire Dept.
Big Horn Co. Fire Protection Dist.	Guernsey Volunteer Fire Dept.	Osage Volunteer Fire Dept.	Teton Village Volunteer Fire Dept.
Buffalo Volunteer Fire Dept.	Hartville Volunteer Fire Dept.	Other	Thayne Ambulance Service - EMT
Campbell Co. Volunteer Fire Dept.	Hawk Springs Volunteer Fire Dept.	Palmer Canyon Fire Dept.	Thayne Volunteer Fire Dept.
Carbon Co. Volunteer Fire Dept.	Holly Frontier Refinery Fire Rescue	Pine Haven Ambulance	Thermopolis Volunteer Fire Dept.
Casper Mountain Volunteer Fire Dept.	Hulett Emergency Medical Services Inc	Pine Haven Volunteer Fire Dept.	Tongue River Volunteer Fire Dept.
Centennial Valley Volunteer - EMT	Hulett Volunteer Fire Dept.	Powder River Fire Dist.	Torrington Ambulance Service - EMT
Chugwater Volunteer Fire Dept.	Jackson Hole - EMT	Powell Valley Healthcare - EMT	Torrington Volunteer Fire Dept.
Clark Volunteer Fire Dept.	Jackson Hole Volunteer Fire	Powell Volunteer Fire Dept.	Town Of Pine Bluffs EMS
Cody Volunteer Fire Dept.	Jeffrey City Volunteer Fire Dept.	Prairie Center Volunteer Fire Dept.	Uinta Co. Volunteer Fire Dept.
Cokeville Vol FD/Bear River Fire Prot	Johnson Co. Fire Control Dist. #1	Rawlins Volunteer Fire Dept.	Uinta County - EMT
Crook Co. Volunteer Fire Dept.	Johnson County Ambulance - EMT	Laramie Co. #8 Volunteer Fire Dept.	South Lincoln Co. - EMT
Dayton Volunteer Fire Dept.	LaGrange Volunteer Fire Dept.	Riverton Volunteer Fire Dept.	Upton Volunteer Fire Dept.
Douglas Volunteer Fire Dept.	Lander Volunteer Fire Dept.	Rock River Volunteer Fire Dept.	Veteran Volunteer Fire Dept.
Dubois Volunteer Fire Dept.	Laramie Co. #1 Volunteer Fire Dept.	Salt Creek Volunteer Fire Dept.	Wamsutter Volunteer Fire Dept.
Eden-Farson Fire Control District	Laramie Co. #10 Volunteer Fire Dept.	Saratoga Volunteer Fire Dept.	Washakie County - EMT
Eden-Farson Volunteer Fire Dept.	Laramie Co. #2 Volunteer Fire Dept.	Shell Volunteer Fire Dept.	West Park Hospital - EMT
Elk Mountain Volunteer Fire Dept.	Laramie Co. #4 Volunteer Fire Dept.	Sheridan Area Rural Volunteer Fire Dept.	Weston Co Volunteer Fire Protection Dist
Encampment Volunteer Fire Dept.	Laramie Co. #5 Volunteer Fire Dept.	Sinclair Ref Volunteer Fire Dept	Wheatland Volunteer Fire Dept.
Evanston Volunteer Fire Dept.	Laramie Co. #6 Volunteer Fire Dept.	Sinclair Volunteer Fire Dept.	Worland Volunteer Fire Dept.
Evansville Volunteer Fire Dept.	Laramie Co. #8 Volunteer Fire Dept.	South Central EMS	Yoder Volunteer Fire Dept.

Affiliated Employers - List of Employers By Plan

Judicial Plan

Wyoming Judicial Branch

Law Enforcement Plan

Albany County	City Of Sundance	Town Of Bairoil	Town Of Midwest
Big Horn County	City Of Torrington	Town Of Basin	Town Of Mills
Campbell County	City Of Worland	Town Of Byron	Town Of Moorcroft
Carbon County	Converse County	Town Of Cokeville	Town Of Mountain View
City Of Buffalo	Crook County	Town of Cowley	Town Of Pine Bluffs
City Of Casper	Fremont County	Town of Deaver	Town Of Saratoga
City Of Cheyenne	Goshen County	Town of Diamondville	Town Of Shoshoni
City Of Cody	Hot Springs County	Town Of Encampment	Town Of Sinclair
City of Douglas	Johnson County	Town Of Evansville	Town Of Thermopolis
City Of Evanston	Laramie County	Town Of Frannie	Town Of Upton
City Of Gillette	Lincoln County	Town Of Glenrock	Town Of Wheatland
City Of Green River	Natrona County	Town Of Greybull	Uinta County
City Of Kemmerer	Park County	Town Of Guernsey	University Of Wyoming
City Of Lander	Platte County	Town Of Hanna	Washakie County
City Of Laramie	Rock Spgs/Green River/Sweetwater Co	Town Of Hulett	Weston County
City Of Newcastle	Sheridan County	Town Of Jackson	
City Of Powell	Sublette County	Town Of Kaycee	WY Attorney General
City Of Rawlins	Sweetwater County	Town Of Lingle	WY Board of Outfitters
City Of Riverton	Teton County	Town Of Lovell	WY Dept of Corrections
City Of Rock Springs	Town Of Afton	Town Of Lusk	WY Dept of Transportation
City Of Sheridan	Town Of Baggs	Town Of Lyman	WY Livestock Board

Air Guard Firefighters Plan

WY Military Dept

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