A Report
to the
Montana
Legislature

Financial Audit

# *Public Employees' Retirement Board*

## *For the Fiscal Year Ended June 30, 2017*

January 2018

Legislative Audit
Division

*16-08B*

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Members serve until a member's legislative term of office ends or until a successor is appointed, whichever occurs first.

§5-13-202(2), MCA

## Financial Audits

Financial audits are conducted by the Legislative Audit Division to determine if the financial statements included in this report are presented fairly and the agency has complied with laws and regulations having a direct and material effect on the financial statements. In performing the audit work, the audit staff uses standards set forth by the American Institute of Certified Public Accountants and the United States Government Accountability Office. Financial audit staff members hold degrees with an emphasis in accounting. Most staff members hold Certified Public Accountant (CPA) certificates.

The Single Audit Act Amendments of 1996 and the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards require the auditor to issue certain financial, internal control, and compliance reports in addition to those reports required by Government Auditing Standards. This individual agency audit report is not intended to comply with these reporting requirements and is therefore not intended for distribution to federal grantor agencies. The Legislative Audit Division issues a statewide biennial Single Audit Report which complies with the above reporting requirements. The Single Audit Report for the two fiscal years ended June 30, 2015, was issued March 29, 2016. The Single Audit Report for the two fiscal years ended June 30, 2017, will be issued by March 31, 2018.

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LEGISLATIVE AUDIT DIVISION

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January 2018

The Legislative Audit Committee
of the Montana State Legislature:

This is our financial audit report of the Public Employees' Retirement Board, a component unit of the state of Montana, for the fiscal year ended June 30, 2017. This report does not contain any recommendations for the board. Included in this report is the Independent Auditor's Report on page A-1. We issued an unmodified opinion on the financial statements and the accompanying notes prepared by board personnel. This indicates that a reader can rely on the information presented. Also included in this report, prepared by board personnel, are the Management's Discussion and Analysis, required supplementary information, and supplementary information.

The board's response to our audit can be found on page C-1 of the report. We thank the executive director and his staff for their assistance and cooperation throughout the audit.

Respectfully submitted,

*/s/ Angus Maciver*

Angus Maciver
Legislative Auditor

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# Appointed and Administrative Officials

| | | | Term Expires |
|---|---|---|---|
| **Public Employees' Retirement Board** | Sheena Wilson, President (resigned October 2017) | Helena | |
| | Maggie Peterson, Vice President | Anaconda | 4/1/18 |
| | Mike McGinley | Dillon | 4/1/19 |
| | Julie McKenna | Helena | 4/1/22 |
| | Marty Tuttle | Clancy | 4/1/19 |
| | Timm Twardoski | Helena | 4/1/21 |
| | Pepper Valdez | Billings | 4/1/20 |

**Administrative Officials**

Dore Schwinden, Executive Director

Patricia Davis, Member Services Bureau Chief

Melanie Symons, Chief Legal Counsel

Hollie Koehler, Fiscal Services Bureau Chief

Angela Riley, Information Systems Bureau Chief

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MONTANA LEGISLATIVE AUDIT DIVISION

# FINANCIAL AUDIT
# Public Employees' Retirement Board
## For the Fiscal Year Ended June 30, 2017

JANUARY 2018 16-08B REPORT SUMMARY

The Public Employees' Retirement Board administers eight defined benefit plans, two defined contribution plans and an Other Post Employment Benefit Plan. The Montana Constitution requires the public retirement systems be funded on an actuarially sound basis. A system is actuarially sound if contributions are sufficient to pay the normal costs of providing benefits as they accrue in the future and the cost of amortizing unfunded liabilities over a scheduled period of no more than 30 years. The June 30, 2017, actuarial valuations indicate the Game Wardens' and Peace Officers' and the Highway Patrol Officers' retirement systems are not actuarially sound.

## Context

The Public Employees' Retirement Board (board) oversees ten retirement plans, an Other Post Employment Benefit (OPEB) plan, and the related member education funds. The retirement plans include eight defined benefit plans and two defined contribution plans. The defined benefit plans are the Public Employees' Retirement System, Judges' Retirement System, Highway Patrol Officers' Retirement System, Sheriffs' Retirement System, Game Wardens' and Peace Officers' Retirement System, Municipal Police Officers' Retirement System, Firefighters' Unified Retirement System, and the Volunteer Firefighters' Compensation Act. The defined contribution retirement plans are the Public Employees' Retirement System and the Deferred Compensation Plan.

For the defined benefit plans, total contributions collected during the fiscal year totaled approximately $322 million and total benefits paid to members totaled approximately $452 million. Net Investment Income for defined benefit systems totaled approximately $756 million. This activity resulted in Net Position of approximately $7 billion for fiscal year 2017.

For the defined contribution plans, the total contributions collected during the fiscal year totaled approximately $47 million. Net Investment Income for defined contribution plans totaled approximately $58 million. This activity resulted in Net Position of approximately $674 million for fiscal year 2017.

## Results

The report does not include recommendations to the board and we issued an unmodified opinion on the board's financial statements for fiscal year 2017. This means the reader may rely upon the information presented in the financial statements. This report contains updated information on the actuarial soundness of the retirement systems. In the fiscal year 2013 audit report, a recommendation was made to the board to continue working with the legislature to ensure all defined benefit pension plans are actuarially sound. We have continued to monitor and communicate actuarial soundness of the retirement systems.

For a complete copy of the report (16-08B) or for further information, contact the Legislative Audit Division at 406-444-3122; e-mail to **lad@mt.gov**; or check the web site at **http://leg.mt.gov/audit**
Report Fraud, Waste, and Abuse to the Legislative Auditor's FRAUD HOTLINE
Call toll-free 1-800-222-4446, or e-mail **lad@mt.gov.**

# Chapter I – Introduction

## Audit Scope

We performed a financial audit of the Public Employees' Retirement Board (board) for the fiscal year ended June 30, 2017. The objectives of our audit were to:

1. Determine whether the board's financial statements present fairly the board's fiduciary net position and changes in fiduciary net position for the fiscal year ended June 30, 2017.
2. Determine the board's compliance with selected laws and regulations.
3. Obtain an understanding of the board's internal control systems to the extent necessary to support our audit of the board's financial statements, and if appropriate, make recommendations for improvement in internal controls.

Our audit work focused on auditing significant activity on the financial statements including investments, contributions, and benefits. We completed testing of state laws related to employer and employee contributions, and benefit payments to members. Additionally, we reviewed the presentation of the board's financial statements and note disclosures to determine if they were complete and accurate. We also completed limited testing over the board's new information system, including reviews of benefits and contributions processes. Our audit work resulted in an unmodified opinion on the board's financial statements, meaning the reader can rely on the information presented. The opinion can be found on page A-1.

We also tested important employee census data for members of the defined benefit retirement systems, as this information is used by the board's actuary to calculate the total pension liability. We traveled to 37 cities across the state and completed approximately 100 samples at 75 participating employers, testing the accuracy and completeness of important member data such as gender, birthdate, hire date, salary, and employment status.

## Actuarial Soundness

The board had an experience study completed as of July 1, 2017. The experience study looked at demographic and economic history to assess the reasonableness of actuarial assumptions. As a result of the experience study, the board adopted new actuarial assumptions. Significant assumption changes include decreasing the discount rate from 7.75 percent to 7.65 percent and decreasing the inflation rate from 3.00 percent to 2.75 percent. The board also updated the non-disabled mortality table.

The financial audit for the fiscal year ended June 30, 2013, contained one recommendation to the board to continue working with the legislature to ensure

all defined benefit pension plans are actuarially sound. Article VIII, Section 15, of the Montana Constitution requires the public retirement systems be funded on an actuarially sound basis. According to state law, a defined benefit retirement system is considered actuarially sound when contributions are sufficient to pay benefit obligations as they accrue in the future and the cost of amortizing unfunded liabilities over a time period that does not exceed 30 years. We have continued to monitor and communicate the actuarial statuses of those systems that have not been resolved. The financial-compliance audit for the fiscal year ended June 30, 2016, discussed three systems that were not actuarially sound. The Sheriffs', Game Wardens' and Peace Officers', and the Other Post Employment Benefit (OPEB) plans did not amortize. Table 1 shows the amortization periods for each defined benefit retirement system at June 30, 2016, and June 30, 2017.

Table 1
**Defined Benefit Plan Amortization Periods**

| System | Amortization Period at June 30, 2016 | Amortization Period at June 30, 2017 |
|---|---|---|
| Public Employees' | 26 | 30 |
| OPEB | Does not amortize | 19 |
| Judges' | 0 | 0 |
| Highway Patrol Officers' | 28 | 37 |
| Sheriffs' | Does not amortize | 25 |
| Game Wardens' and Peace Officers' | Does not amortize | 70 |
| Municipal Police Officers' | 18 | 16 |
| Firefighters' Unified | 9 | 10 |
| Volunteer Firefighters' Compensation Act | 7 | 6 |

**Source: Compiled by the Legislative Audit Division from Public Employees' Retirement Board Actuarial Information.**

The actuarial valuation as of June 30, 2017, indicated that the Sheriffs' Retirement system amortizes in 25 years and the OPEB plan amortizes in 19 years. During the 2017 Legislative Session, bills were passed for the Sheriffs' plan that increased the funding status of the plan and decreased the amortization period. For the OPEB plan, the board entered into a new investment contract in fiscal year 2016 to diversify their investment asset allocation into longer term asset classes, which improved the plan's funding status.

The actuarial valuations as of June 30, 2017, indicated that two defined benefit pension plans are actuarially unsound because they do not amortize within the 30-year time period. We consider this to be material noncompliance as noted in the report on internal control and compliance starting on page B-1. The Game Wardens' and Peace

Officers' system amortizes in 70 years. During the 2017 Legislative Session, bills were introduced to improve the funding status of the Game Wardens' and Peace Officers' system. However these bills were not passed.

The Highway Patrol Officers' system amortizes in 37 years. The increase in the amortization period was the result of actuarial assumption changes resulting from the 2017 experience study.

The board continues to work with plan stakeholders and the legislature to improve the funding status and decrease the amortization period for both systems that are not actuarially sound. Board officials have put forth effort to ensure all defined benefit plans are actuarially sound. Since continued effort has been made to work with the legislature, and improvements occurred in the amortization periods for the Sheriffs', Game Wardens' and Peace Officers', and OPEB plans, we make no further recommendation at this time. We will continue to monitor and report on this recommendation and the board's compliance with the constitutional requirement.

## Pension Liability

The notes to the financial statements disclose the total pension liability and net pension liability for each of the defined benefit systems. The total pension liability is the actuarial present value of projected benefit payments attributable to past periods of member service. The net pension liability is the total pension liability net of the plan fiduciary net position. Table 2 shows the Net Pension Liability/(Asset) for the defined benefit plans at June 30, 2017.

Table 2
**Net Pension Liability/(Asset) by Defined Benefit Plans**
(in thousands)

| System | June 30, 2017 Net Pension Liability/(Asset) | June 30, 2016 Net Pension Liability/(Asset) | Increase/ (Decrease) |
|---|---|---|---|
| Public Employees' | $1,947,626 | $1,703,346 | $244,280 |
| Judges' | (35,856) | (33,852) | (2,004) |
| Highway Patrol Officers' | 78,386 | 71,779 | 6,607 |
| Sheriffs' | 76,097 | 175,678 | (99,581) |
| Game Wardens' and Peace Officers' | 37,360 | 32,849 | 4,511 |
| Municipal Police Officers' | 177,913 | 180,014 | (2,101) |
| Firefighters' Unified | 113,035 | 114,213 | (1,178) |
| Volunteer Firefighters' Compensation Act | 10,087 | 10,599 | (512) |

**Source: Compiled by Legislative Audit Division from Public Employees' Retirement Board Actuarial Information.**

## Background

The board is a component unit of the state of Montana. The board consists of seven members appointed by the governor to five-year terms. The executive director and his staff perform daily administrative functions as directed by the board. The board administers ten retirement plans, an Other Post Employment Benefit (OPEB) plan, and the related member education funds. The board manages the following defined benefit plans:

- Public Employees' Retirement System–Defined Benefit Retirement Plan
- Judges' Retirement System
- Highway Patrol Officers' Retirement System
- Sheriffs' Retirement System
- Game Wardens' and Peace Officers' Retirement System
- Municipal Police Officers' Retirement System
- Firefighters' Unified Retirement System
- Volunteer Firefighters' Compensation Act

Each of these defined benefit funds provide pension, disability, and death benefits to eligible members and survivors. For all plans except for the Volunteer Firefighters' Compensation Act, the monthly benefits are based on eligibility, years of service, and salary levels while employed. The Volunteer Firefighters' Compensation Act monthly benefits are based only on eligibility and years of service.

The board also manages two defined contribution plans. The Public Employees' Retirement System–Defined Contribution Retirement Plan provides retirement and death benefits for plan members. The Deferred Compensation (457) Plan is a voluntary supplemental retirement savings plan for employees that are employed by the state, the Montana University System, or political subdivisions that contract with the plan. Members contribute a portion of their compensation to the plan.

# Independent Auditor's Report and Board Financial Statements

LEGISLATIVE AUDIT DIVISION

Angus Maciver, Legislative Auditor
Deborah F. Butler, Legal Counsel

Deputy Legislative Auditors
Cindy Jorgenson
Joe Murray

# Independent Auditor's Report

The Legislative Audit Committee
of the Montana State Legislature:

***Introduction***

We have audited the accompanying Statement of Fiduciary Net Position–Pension (And Other Employee Benefit) Trust Funds of the Public Employees' Retirement Board (board), a component unit of the state of Montana, as of June 30, 2017, and the related Statement of Changes in Fiduciary Net Position–Pension (And Other Employee Benefit) Trust Funds for the fiscal 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 responsibility includes designing, implementing, and maintaining internal controls 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 from 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 controls relevant to the board'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 board's internal control, and 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 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 fiduciary net position of the Public Employees' Retirement Board as of June 30, 2017, and the changes in fiduciary net position for the fiscal year then ended in conformity with accounting principles generally accepted in the United States of America.

***Emphasis of Matter***

As discussed in Note C, the Game Wardens' and Peace Officers' retirement system and Highway Patrol Officers' retirement system were not actuarially sound at June 30, 2017, as required by the Montana Constitution because they amortize in 70 years and 37 years, respectively. The maximum allowable amortization period is 30 years, as defined by state law. 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 & Analysis, and the Schedule of Changes in Multiple-Employer Plans Net Pension Liability/(Asset), Schedule of Changes in Single-Employer Plans Net Pension Liability/(Asset), Schedule of Net Pension Liability/(Asset) for Multiple-Employer Plans, Schedule of Net Pension Liability/(Asset) for Single-Employer Plans, Schedule of Employer and Non-Employer (State) Contributions for Cost-Sharing Multiple-Employer Plans, Schedule of Employer Contributions for Single-Employer Plans, Schedule of Investment Returns for Multiple-Employer Plans, Schedule of Investment Returns for Single-Employer Plans, the Schedule of Funding Progress for OPEB (Healthcare), and related notes 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.

*Supplementary Information*

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The following schedules are supplementary information presented for purposes of additional analysis and are not a required part of the financial statements: Schedule of Administrative Expenses, Schedule of Investment Expenses, Schedule of Professional/Consultant Fees, Detail of Fiduciary Net Position (PERS-DBRP and PERS-DBEd), Detail of Changes in Fiduciary Net Position (PERS-DBRP and PERS-DBEd), Detail of Fiduciary Net Position (PERS-DCRP, PERS-DCEd), and Detail of Changes in Fiduciary Net Position (PERS-DCRP, PERS-DCEd) for the fiscal year ended June 30, 2017. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 20, 2017, on our consideration of the Public Employees' Retirement Board'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 to describe the scope of our testing of internal control over financial reporting and the results of that testing, and not to provide an opinion on 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 the Public Employees' Retirement Board's internal control over financial reporting and compliance.

Respectfully submitted,

*/s/ Cindy Jorgenson*

Cindy Jorgenson, CPA
Deputy Legislative Auditor
Helena, MT

December 20, 2017

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Management's Discussion and Analysis

*This section presents management's discussion and analysis of the Montana Public Employees' Retirement Board's (PERB) financial presentation and performance of the plans administered by the PERB for the fiscal year ending June 30, 2017. Throughout this discussion and analysis units of measure (i.e., billions, millions, thousands) are approximate, being rounded up or down to the nearest tenth of the respective unit value.*

## *Financial Highlights*

- *The PERB's combined total net position of the defined benefit plans increased by $600.6 million or 9.3% in fiscal year 2017. The increase was primarily due to an increase in investment income.*
- *The PERB's defined contribution plans combined total net position increased by $68.8 million or 11.4% in fiscal year 2017. The total increase in net position was primarily due to the increase of investment income in the PERS defined contribution retirement plan and the deferred compensation plan.*
- *Revenues (additions to plan net position) for the PERB's defined benefit plans for fiscal year 2017 were $1.1 billion, which includes member and employer contributions of $322.0 million and net investment income of $755.9 million.*
- *Revenues (additions to plan net position) for the PERB's defined contribution plans for fiscal year 2017 were $105.7 million, which includes member and employer contributions of $47.5 million and net investment income of $58.2 million.*
- *Expenses (deductions to plan net position) for the PERB's defined benefit plans increased from $445.7 million in fiscal year 2016 to $477.4 million in fiscal year 2017 or 7.1%. The increase in 2017 is primarily due to an increase in benefit payments.*
- *Expenses (deductions to plan net position) for the PERB's defined contribution plans increased from $27.3 million in fiscal year 2016 to $36.9 million in fiscal year 2017 or 35.3%. The increase in expenses is primarily due to a increase in member distributions.*
- *The PERB's defined benefit plans' funding objective is to meet long-term benefit obligations. As of June 30, 2017, the date of the latest actuarial valuation, five of the plans amortize the Unfunded Actuarial Liability (UAL) in 30 years or less. They are the Public Employees' Retirement System (PERS), Sheriff's Retirement System (SRS), Municipal Police Officers' Retirement System (MPORS), Firefighters' Unified Retirement System (FURS), and the Volunteer Firefighters' Compensation Act (VFCA). The plans that do not amortize the Unfunded Actuarial Liability in 30 years or less are the Highway Patrol Officers' Retirement System (HPORS) and*

*the Game Wardens' and Peace Officers' Retirement System (GWPORS). The Judges' Retirement System (JRS) has an actuarial surplus. This means there are more assets than liabilities in the plan. It is important to understand that this measure reflects the Actuarial Value of Assets for the defined benefit plans, which are currently greater than the actual fair value published in the financial statements. Investment earnings are critical to the defined benefit plans. The actuary uses a four-year smoothing method to determine the Actuarial Value of Assets. This method is used to reduce the impact of market volatility. Due to smoothing gains in 2014, 2015, 2016, and 2017, return on actuarial value ranged from 7.89% to 8.25% for all systems, creating actuarial experience gains. These ranges were greater than the actuarial assumed rate of return on investments of 7.75%.*

## *Overview of the Financial Statements*

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

(1) Financial Statements
(2) Notes to the Financial Statements
(3) Required Supplementary Information
(4) Other Supplementary Schedules

Collectively, this information presents the combined net position restricted for pension benefits for each of the plans administered by the PERB as of June 30, 2017. This financial information also summarizes the combined changes in net position restricted for pension benefits for the year then ended. The information in each of these components is briefly summarized as follows:

(1) Financial Statements for the fiscal year ended June 30, 2017, are presented for the fiduciary funds administered by MPERA, staff of the PERB. Fiduciary funds are used to pay for pension benefits and expenses. The fiduciary funds are comprised of 11 trust funds that consist of ten pension and one other post-employment benefit (OPEB).

- The Statement of Fiduciary Net Position is presented for the pension trust funds at June 30, 2017. These financial statements reflect the resources available to pay benefits to retirees and beneficiaries at the end of the fiscal year reported.

- The Statement of Changes in Fiduciary Net Position is presented for the pension trust funds for the year ended June 30, 2017. These financial statements reflect the changes in the resources available to pay benefits to retirees and beneficiaries at the end of the fiscal year reported.

(2) The Notes to the Financial Statements provide additional information that is essential for a full understanding of the data provided in the financial statements. The information in the Notes to the Financial Statements is described as follows:

- Note A provides a summary of significant accounting policies including: the basis of accounting; capital assets and equipment used in operations including PERIS, the new line of business system; operating lease; Governmental Accounting Standards Board (GASB) Statement No. 67 Disclosures regarding Financial Reporting for Pension Plans; GASB

Statement No. 43 Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans; GASB Statement No. 45 Employer Disclosures regarding Other Post-Employment Benefits (OPEB); and summaries of the method to value investments and other significant accounting policies or explanations.

- Note B provides information about litigation.
- Note C describes the membership and descriptions of each of the plans administered by the PERB. Summaries of benefit and contribution information are also provided.

(3) The Required Supplementary Information (RSI) consists of multiple-employer and single-employer plan schedules of changes of employers' net pension liability, employers' net pension liability, employer contributions, and the money-weighted rate of investment returns of the defined benefit pension systems administered by the PERB. The RSI also contains, as related notes concerning actuarial information of the defined benefit pension plans, Other Post-Employment Benefits (OPEB) for the State Healthcare Benefits and the PERS-DCRP Disability OPEB and the related notes to the OPEB plans.

(4) Other Supplementary Schedules include schedules of administrative expenses, investment expenses, and professional/ consultant fees.

## *Financial Analysis of the Systems – Defined Benefit Plans*

### Investments

The State of Montana Board of Investments (BOI), as authorized by state law, invests the defined benefit plans' assets in the new Consolidated Asset Pension Pool (CAAP) and the Montana Short Term Investment Pool (STIP). Each plan owns an equity position in the pools and receives proportionate investment income from the pools in accordance with respective ownership. Each plan's allocated share of the investment in the pool is shown in the Statement of Fiduciary Net Position of the plan. Investment gains and losses are reported in the Statement of Changes in Fiduciary Net Position.

### Economic Conditions

The Board of Investments' Chief Investment Officer, Joe Cullen, had the following remarks on fiscal year 2017 economic conditions: "Although much change took place in the capital markets and across the political landscape, the economic conditions remained relatively stable with some small improvements. The U.S. economic conditions during the past fiscal year can be summarized as moderate growth, continued improvements in the labor market, with continued low inflation.

"Real U.S. Gross Domestic Product (GDP), which is a measure of the total output of goods and services, adjusted for price changes, was estimated at 2.2% for fiscal year 2017. Although positive, and consistent with the annual average during the recent expansion, it is below the average of GDP increases during other recent U.S. expansions.

"The labor market strengthened, with the recent unemployment rate of 4.4%, showing continued improvement during the last year and approximately 0.5% below the level of unemployment measured at the beginning of the fiscal year.

"Measures of inflation continued to be subdued with annual estimates of 1%-2%, less than half of the 50-year average and still below the Federal Reserve's target level of 2%. Oil, which is a significant contributor to inflation estimates and expectations, started the fiscal year near $48/barrel, experienced some volatility in price, but finished the fiscal year near the level it started.

"The Federal Open Market Committee (FOMC) of the Federal Reserve seeks to 'foster maximum employment and price stability'. Based on this philosophy, the FOMC raised the target range for the federal funds rate three times during the fiscal year to the current range of 1 to 1 ¼ percent.

"Longer-term U.S. interest rates increased during the last year with the ten-year rate increasing by +0.83% to a nominal yield of 2.30% by June 30, 2017.

"The U.S. Dollar experienced significant volatility (plus and minus 7%) relative to other major currencies during the fiscal year. At the beginning of the year, global investors anticipated that the FOMC would continue to raise the Fed Funds rate at a faster pace relative to the world's other central bankers raising their rates, causing the U.S. dollar to appreciate. However, during the last half of the fiscal year, the U.S. dollar gave back all its gains resulting in a small depreciation relative to other currencies.

"The FOMC continues to maintain an accommodative monetary policy and expects the economic activity will continue to expand moderately and labor market conditions will continue to improve." (Written September 12, 2017)

### Defined Benefit Plans Total Investments

At June 30, 2017, the PERB's defined benefit plans held total investments of $6.8 billion, an increase of $614.9 million from fiscal year 2016 investment totals. Also included are the schedules of Fiduciary Net Position and Changes in Fiduciary Net Position for the defined benefit plans, including comparative totals from fiscal year 2016.

## *Analysis of Individual Systems*

### PERS-DBRP and Education

*The PERS-DBRP provides retirement, disability, and death benefits for covered employees of the State, local governments, certain employees of the Montana University System, and school districts. Member and employer contributions and earnings on investments fund the benefits of the plan. All new members are initially members of the PERS-DBRP and have a 12-month window during which they may choose to remain in the PERS-DBRP or join the PERS-DCRP by filing an irrevocable election. The PERS-DBRP and the DB Education Fund have been combined in these comparisons.* The PERS-DBRP net position restricted for pension benefits at June 30, 2017 amounted to $5.5 billion, an increase of $439.5 million (8.7%) from $5.0 billion at June 30, 2016.

Additions to the PERS-DBRP net position restricted for pension benefits includes contributions from employer, member and the state; a statutorily-appropriated coal tax contribution from the general fund; and investment income. For the fiscal year ended

June 30, 2017, contributions increased to $233.4 million in fiscal year 2017 from $230.9 million in fiscal year 2016, an increase of $2.5 million (1.1%). Contributions increased due to an increased employer contribution rate and an increase in active members contributing to the

## Fiduciary Net Position - Defined Benefit Plans

***As of June 30, 2017** - and comparative totals for June 30, 2016*

(dollars in thousands)

| | PERS | | PERS-DCRP DISABILITY OPEB | | JRS | | HPORS | | SRS | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| **Assets:** | | | | | | | | | | |
| Cash and Receivables | $ 152,223 | 161,002 | 328 | 283 | 2,408 | 2,673 | 4,025 | 4,327 | 8,901 | 8,867 |
| Securities Lending Collateral | 31,162 | 139,758 | | 1 | 550 | 2,431 | 798 | 3,568 | 1,884 | 8,314 |
| Investments | 5,326,238 | 4,875,780 | 3,462 | 2,835 | 93,939 | 84,832 | 136,350 | 124,427 | 321,984 | 290,138 |
| Property and Equipment[1] | 33 | 31 | | | | 1 | | | | 1 |
| Intangible Assets | 1,298 | | | | 381 | | 323 | | 381 | |
| Capital Assets | | 1,195 | | | | 351 | | 298 | | 351 |
| Total Assets | 5,510,954 | 5,177,766 | 3,790 | 3,119 | 97,278 | 90,288 | 141,496 | 132,620 | 333,150 | 307,671 |
| **Liabilities:** | | | | | | | | | | |
| Securities Lending Liability | 31,162 | 139,758 | | 1 | 550 | 2,431 | 798 | 3,568 | 1,884 | 8,314 |
| Other Payables | 4,421 | 2,149 | 1 | | 73 | 51 | 160 | 79 | 351 | 205 |
| Total Liabilities | 35,583 | 141,907 | 1 | 1 | 623 | 2,482 | 958 | 3,647 | 2,235 | 8,519 |
| Total Net Position[1] | $ 5,475,371 | 5,035,859 | 3,789 | 3,118 | 96,655 | 87,806 | 140,538 | 128,973 | 330,915 | 299,152 |

[1]Due to rounding to thousands instead of hundreds on this Comparative Statement, the Property and Equipment amounts for all systems, but PERS, will not show the 2017 figures. Therefore, the *Total Net Position* for 2017 will not tie to the *Net Position - Restricted for Pension Benefits* on the *Statement of Fiduciary Net Position*.

## Changes In Fiduciary Net Position - Defined Benefit Plans

***For the year ended June 30, 2017** - and comparative totals for June 30, 2016*

(dollars in thousands)

| | PERS | | PERS-DCRP DISABILITY OPEB | | JRS | | HPORS | | SRS | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| **Additions:** | | | | | | | | | | |
| Contributions | $ 233,427 | 230,953 | 392 | 368 | 2,288 | 2,536 | 7,995 | 8,076 | 14,751 | 14,299 |
| Investment Income (Loss) | 591,539 | 101,213 | 333 | 11 | 10,370 | 1,779 | 15,101 | 2,605 | 35,516 | 6,064 |
| Total Additions | 824,966 | 332,166 | 725 | 379 | 12,658 | 4,315 | 23,096 | 10,681 | 50,267 | 20,363 |
| **Deductions:** | | | | | | | | | | |
| Benefits | 366,355 | 344,104 | 54 | 42 | 3,554 | 3,416 | 11,037 | 10,483 | 16,700 | 15,476 |
| Refunds | 12,326 | 10,645 | | | | | 245 | 94 | 1,416 | 1,104 |
| OPEB Expenses[1] | 104 | 88 | | | 1 | 3 | | 2 | 1 | 3 |
| Administrative Expenses | 5,121 | 4,173 | | | 254 | 197 | 248 | 197 | 387 | 323 |
| Miscellaneous Expenses | 1,547 | 1,235 | | | | | | | | |
| Total Deductions | 385,453 | 360,245 | 54 | 42 | 3,809 | 3,616 | 11,530 | 10,776 | 18,504 | 16,906 |
| Incr/(Decr) in Net Position[1] | $ 439,513 | (28,079) | 671 | 337 | 8,849 | 699 | 11,566 | (95) | 31,763 | 3,457 |

[1]Due to rounding to thousands instead of hundreds, the OPEB Expense amounts for all systems but PERS, will not show the 2017 figures. Therefore, the *Incr/(Decr) in Net Position* may not tie to the *Statement of Changes in Fiduciary Net Position*.

plan. The plan recognized total net investment income of $591.5 million for the fiscal year ended June 30, 2017, compared with total net investment income of $101.2 million for the fiscal year ended June 30, 2016, an increase of $490.3 million (484.5%). The increase in

| GWPORS | | MPORS | | FURS | | VFCA | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|
| 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| | | | | | | | | | |
| $ 4,424 | 4,979 | 23,630 | 24,037 | 24,520 | 24,158 | 1,016 | 2,772 | 221,475 | 233,098 |
| 1,002 | 4,286 | 2,109 | 9,157 | 2,171 | 9,381 | 207 | 895 | 39,883 | 177,791 |
| 171,204 | 149,488 | 360,476 | 319,442 | 371,014 | 327,308 | 35,427 | 30,950 | 6,820,094 | 6,205,200 |
| | 1 | | | | 1 | | | 33 | 35 |
| 381 | | 341 | | 337 | | 310 | | 3,752 | |
| | 351 | | 314 | | 310 | | 285 | | 3,455 |
| 177,011 | 159,105 | 386,556 | 352,950 | 398,042 | 361,158 | 36,960 | 34,902 | 7,085,237 | 6,619,579 |
| | | | | | | | | | |
| 1,002 | 4,286 | 2,109 | 9,157 | 2,171 | 9,381 | 207 | 895 | 39,883 | 177,791 |
| 167 | 134 | 380 | 166 | 359 | 148 | 123 | 124 | 6,035 | 3,056 |
| 1,169 | 4,420 | 2,489 | 9,323 | 2,530 | 9,529 | 330 | 1,019 | 45,918 | 180,847 |
| $ 175,842 | 154,685 | 384,067 | 343,627 | 395,512 | 351,629 | 36,630 | 33,883 | 7,039,319 | 6,438,732 |

| GWPORS | | MPORS | | FURS | | VFCA | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|
| 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| | | | | | | | | | |
| $ 9,742 | 9,314 | 25,517 | 25,064 | 25,864 | 24,885 | 2,065 | 2,036 | 322,041 | 317,531 |
| 18,592 | 3,167 | 39,781 | 7,113 | 40,844 | 7,312 | 3,837 | 623 | 755,913 | 129,887 |
| 28,334 | 12,481 | 65,298 | 32,177 | 66,708 | 32,197 | 5,902 | 2,659 | 1,077,954 | 447,418 |
| | | | | | | | | | |
| 5,810 | 5,068 | 23,475 | 21,961 | 22,336 | 20,896 | 2,859 | 2,623 | 452,180 | 424,069 |
| 1,036 | 1,093 | 1,043 | 1,369 | 169 | 46 | | | 16,235 | 14,351 |
| 1 | 3 | | 3 | | 2 | | 2 | 107 | 106 |
| 329 | 270 | 339 | 274 | 320 | 260 | 289 | 242 | 7,287 | 5,936 |
| | | | | | | 6 | 12 | 1,553 | 1,247 |
| 7,176 | 6,434 | 24,857 | 23,607 | 22,825 | 21,204 | 3,154 | 2,879 | 477,362 | 445,709 |
| $ 21,158 | 6,047 | 40,441 | 8,570 | 43,883 | 10,993 | 2,748 | (220) | 600,592 | 1,709 |

investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

As a result of 2013 legislation that became effective July 1, 2013, PERS-DBRP receives additional contributions from the State's coal severance tax fund and interest income from the coal severance tax permanent fund. The coal severance tax collections are credited to the general fund of the State of Montana and are statutorily appropriated on July 1 each year to the trust fund for the PERS-DBRP. The coal tax is transferred quarterly and the interest income is credited monthly. The amount that was received for fiscal year 2017 was $27.9 million. These are recorded as *Coal Tax Transfers* on the financial statements.

Deductions from the PERS-DBRP net position restricted for pension benefits include retirement benefits, refunds, and administrative expenses. For fiscal year 2017, benefits amounted to $366.4 million, an increase of $22.3 million (6.5%) from fiscal year 2016. The increase in benefit payments was due to the increase in benefit recipients and the increase in the average recipient's benefit due to the guaranteed annual benefit adjustment (GABA). For fiscal year 2017, refunds amounted to $12.3 million, an increase of $1.7 million (15.8%) from fiscal year 2016. Even though there was a decrease in the number of members taking a refund, the increase in refunds was due to refunds being processed for larger dollar amounts. For fiscal year 2017, the costs of administering the plan's benefits amounted to $5.1 million, an increase of $948.9 thousand (22.7%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the PERS-DBRP and disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

An actuarial valuation of the PERS-DBRP assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent actuarial valuation, the number of years to amortize the unfunded actuarial liability increased to 30 years from 26 years. The funded status of the plan decreased to 72.76% at June 30, 2017 from 77.31% at June 30, 2016.

The PERS-DBRP actuarial value of assets was less than actuarial liabilities by $2.1 billion at June 30, 2017, compared with $1.5 billion at June 30, 2016. The increase in the unfunded actuarial liability as of the last actuarial valuation is a result of recognizing liability losses of $153.7 million and $365.9 million due to the changes in actuarial assumptions and methods. However, even in recognizing past investment gains of $17.2 million it still resulted in a total loss adding $502.4 million to the actuarial liability during fiscal year 2017.

**PERS-DCRP DISABILITY OPEB**

*The PERS-DCRP Disability OPEB provides disability benefits for defined contribution plan members. A percentage of employer contributions and earnings on investments fund the benefits of the plan.* The DCRP Disability OPEB net position restricted for pensions at June 30, 2017 amounted to $3.8 million, an increase of $671 thousand (21.5%) from $3.1 million at June 30, 2016.

Additions to the DCRP Disability OPEB net position restricted for pension benefits include employer contributions and investment income. For the fiscal year ended June 30, 2017, employer contributions amounted to $392 thousand, an increase of $24 thousand (6.5%) from fiscal year 2016. Contributions

increased due to an increase in participants. The plan recognized total net investment income of $333 thousand for the fiscal year ended June 30, 2017 compared with total net investment income of $11 thousand for the fiscal year ended June 30, 2016, an increase of $322 thousand (2,907%). The increase is due to a transfer of $2.8 million dollars from the Short-term Investment Pool (STIP) to the Commingled Equity Securities in June 2016. This resulted in a significant increase in the daily investment interest.

Deductions from the DCRP Disability OPEB net position restricted for pension benefits are disability retirement benefits. For fiscal year 2017, benefits amounted to $54 thousand, an increase of $12.3 thousand (29.5%) from fiscal year 2016.

An actuarial valuation of the DCRP Disability OPEB assets and disability benefit obligations is performed annually. The valuation was performed using the June 30, 2017 data and the 2017 experience study demographic and economic assumptions. At June 30, 2017, the date of the most recent actuarial valuation, the number of years to amortize the unfunded actuarial liability decreased to 19 years from not amortizing at June 30, 2016. The funded status of the plan increased to 87.14% at June 30, 2017 from 86.83% at June 30, 2016. The unfunded actuarial liability increased to $510 thousand at June 30, 2017 from $473 thousand at June 30, 2016, as a result of a loss adding $16.1 thousand to the expected actuarial liability.

During the year ended June 30, 2017, the DCRP Disability OPEB assets gained 0.02% on an annualized market basis. This return was 3.48% below the DCRP Disability OPEB assumed rate of return of 3.50%. The plan earned $114,485 less than the assumed rate at June 30, 2017, and $91,932 less than the assumed rate at June 30, 2016.

**JRS**

*The JRS provides retirement, disability, and death benefits for all Montana judges of the district courts, justices of the Supreme Court, the Chief Water Judge and the Associate Water Judge. Member and employer contributions and earnings on investments fund the benefits of the plan.* The JRS net position restricted for pensions at June 30, 2017 amounted to $96.7 million, an increase of $8.8 million (10.1%) from $87.8 million at June 30, 2016.

Additions to the JRS net position restricted for pension benefits include member and employer contributions, and investment income. For the fiscal year ended June 30, 2017, contributions amounted to $2.3 million, a decrease of $247 thousand (9.8%) from fiscal year 2016. Contributions decreased slightly as a result of an above average service purchase that took place during fiscal year ended June 30, 2016 that increased fiscal year 2016's contributions. The plan recognized total net investment income of $10.4 million for the fiscal year ended June 30, 2017, compared with total net investment income of $1.8 million for the fiscal year ended June 30, 2016, an increase of $8.6 million (483.0%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the JRS net position restricted for pension benefits include retirement benefits and administrative expenses. For fiscal year 2017, benefits amounted to $3.6 million, an increase of $138 thousand (4.0%) from fiscal year 2016. The increase in benefits was due to an increase in the average recipient's benefit due to the guaranteed annual benefit adjustment (GABA) or the minimum benefit

adjustment for non-GABA recipients. For fiscal year 2017, administrative expenses amounted to $254 thousand, an increase of $56 thousand (28.5%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the JRS and disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

An actuarial valuation of the JRS assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent actuarial valuation, the years to amortize the unfunded actuarial liability is still zero due to the actuarial surplus. The funded status of the plan increased to 167.06% at June 30, 2017 from 166.48% at June 30, 2016.

The JRS actuarial value of assets was greater than actuarial liabilities by a $39.0 million actuarial surplus at June 30, 2017, compared with a $36.4 million actuarial surplus at June 30, 2016. There was still an increase in the unfunded actuarial liability as of the last actuarial valuation, which is a result of recognizing liability gains of $2.1 million and a liability loss of $3.6 million due to the changes in actuarial assumptions and methods. However, even in recognizing past investment gains of $428.9 thousand it still resulted in a total loss adding $1.0 million to the actuarial liability during fiscal year 2017.

**HPORS**

*The HPORS provides retirement, disability, and death benefits for members of the Montana Highway Patrol. Member and employer contributions, a statutory appropriation from the general fund, and earnings on investments fund the benefits of the plan.* The HPORS net position restricted for pensions at June 30, 2017 amounted to $140.5 million, an increase of $11.5 million (9.0%) from $129.0 million at June 30, 2016.

Additions to the HPORS net position restricted for pension benefits include employer and member contributions, a statutory appropriation from the general fund, and investment income. For the fiscal year ended June 30, 2017, contributions decreased to $8.0 million from $8.1 million in fiscal year 2016, a decrease of $81 thousand (1.0%). Contributions decreased slightly as a result of an above average service purchase that took place during fiscal year 2016 which resulted in an increase in fiscal year 2016's contributions. The plan recognized total net investment income of $15.1 million for the fiscal year ended June 30, 2017, compared with total net investment income of $2.6 million for the fiscal year ended June 30, 2016, an increase of $12.5 million (479.63%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the HPORS net position restricted for pension benefits include retirement benefits, refunds, and administrative expenses. For fiscal year 2017, benefits amounted to $11.0 million, an increase of $553 thousand (5.3%) from fiscal year 2016. The increase in benefit payments was due to an increase in benefit recipients and the increase in the average recipient's benefit due to the guaranteed annual benefit adjustment (GABA) or the minimum monthly benefit for non-GABA recipients. For fiscal year 2017, refunds amounted to $245 thousand, an increase of $151 thousand (160.7%) from fiscal year 2016. The increase in refunded amounts was due to an increase in refund requests. For fiscal year 2017, administrative expenses

were $248 thousand, an increase of $51 thousand (25.9%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the HPORS and disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

An actuarial valuation of the HPORS assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent actuarial valuation, the number of years to amortize the unfunded actuarial liability is 37 years an increase from 28 years at June 30, 2016. The funded status of the plan decreased to 64.35% at June 30, 2017 from 65.84% at June 30, 2016.

The HPORS actuarial value of assets was less than actuarial liabilities by $78.2 million at June 30, 2017, compared with $69.5 million at June 30, 2016. The increase in the unfunded actuarial liability as of the last actuarial valuation is a result of recognizing liability losses of $817 thousand and $7.9 million due to the changes in actuarial assumptions and methods. However, even in recognizing past investment gains of $664 thousand it still resulted in a total loss adding $8.0 million to the actuarial liability during fiscal year 2017.

## SRS

*The SRS provides retirement, disability, and death benefits for all Department of Justice criminal investigators hired after July 1, 1993, detention officers hired after July 1, 2005, and all Montana sheriffs. Member and employer contributions and earnings on investments fund the benefits of the plan.* The SRS net position restricted for pension benefits at June 30, 2017 amounted to $331.0 million, an increase of $31.8 million (10.6%) from $299.2 million at June 30, 2016.

Additions to the SRS net position restricted for pension benefits include member and employer contributions, and investment income. For the fiscal year ended June 30, 2017, contributions increased to $14.8 million from $14.3 million in fiscal year 2016, for an increase of $452 thousand (3.2%). The increase in contributions was due to an increase in active members contributing to the plan. The plan recognized total net investment income of $35.5 million for the fiscal year ended June 30, 2017, compared with total net investment income of $6.1 million for the fiscal year ended June 30, 2016, an increase of $29.5 million (485.7%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the SRS net position restricted for pension benefits include retirement benefits, refunds, and administrative expenses. For fiscal year 2017, benefits amounted to $16.7 million, an increase of $1.2 million (7.9%) from fiscal year 2016. The increase in benefit payments was due to an increase in benefit recipients and the average recipient's benefit due to the guaranteed annual benefit adjustment (GABA). For fiscal year 2017, refunds amounted to $1.4 million, an increase of $312 thousand (28.3%) from fiscal year 2016. The increase in refunds was due to refunds being processed at larger dollar amounts. For fiscal year 2017, administrative expenses amounted to $387 thousand, an increase of $64.8 thousand (20.1%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the SRS and

disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

An actuarial valuation of the SRS assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent actuarial valuation, the number of years to amortize the unfunded actuarial liability decreased to 25 years from does not amortize. The funded status of the plan decreased to 80.74% at June 30, 2017 from 83.21% at June 30, 2016.

The SRS actuarial value of assets was less than actuarial liabilities by $79.2 million at June 30, 2017, compared with $62.6 million at June 30, 2016. The increase in the unfunded actuarial liability as of the last actuarial valuation is a result of recognizing liability losses of $2.5 million, $14.3 million due to the changes in actuarial assumptions and methods, and a gain of $1.3 million due to a change in benefits. However, even in recognizing past investment gains of $1.5 million, it still resulted in a total loss adding $14.0 million to the actuarial liability during fiscal year 2017.

## GWPORS

*The GWPORS provides retirement, disability, and death benefits for game wardens, warden supervisory personnel and state peace officers. Member and employer contributions and earnings on investments fund the benefits of the plan.* The GWPORS net position restricted for pension benefits at June 30, 2017, amounted to $175.8 million, an increase of $21.1 million (13.7%) from $154.7 million at June 30, 2016.

Additions to the GWPORS net position restricted for pension benefits include member and employer contributions, and investment income. For the fiscal year ended June 30, 2017, contributions increased to $9.7 million from $9.3 million in fiscal year 2016, an increase of $428 thousand (4.6%). The increase in contributions was due to an increase in active members contributing to the plan. The plan recognized total net investment income of $18.6 million for the fiscal year ended June 30, 2017, compared with total net investment income of $3.2 million for the fiscal year ended June 30, 2016, an increase of $15.4 million (487.1%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the GWPORS net position restricted for pensions include retirement benefits, refunds, and administrative expenses. For fiscal year 2017, benefits amounted to $5.8 million, an increase of $742 thousand (14.6%) from fiscal year 2016. The increase in benefit payments was due to the increase in benefit recipients and the increase in the average recipient's benefit due to the guaranteed annual benefit adjustment (GABA). For fiscal year 2017, refunds amounted to $1.0 million, a decrease of $58 thousand (5.3%) from fiscal year 2016. The decrease in refunds was due to fewer refund requests from members. For fiscal year 2017, administrative expenses amounted to $329 thousand, an increase of $58 thousand (21.5%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the GWPORS and disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

An actuarial valuation of the GWPORS assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent

actuarial valuation, the number of years to amortize the unfunded actuarial liability decreased to 70 years from does not amortize. The funded status of the plan decreased to 81.01% at June 30, 2017 from 84.06% at June 30, 2016.

The GWPORS actuarial value of assets was less than actuarial liabilities by $41.3 million at June 30, 2017, compared with $30.5 million at June 30, 2016. The increase in unfunded actuarial liability as of the last actuarial valuation is a result of recognizing liability losses of $6.0 million and $5.3 million due to changes in actuarial assumptions and methods. However, even in recognizing past investment gains of $645.3 thousand, it still resulted in a total loss adding $10.7 million to the actuarial liability during fiscal year 2017.

## MPORS

*The MPORS provides retirement, disability, and death benefits for municipal police officers employed by first- and second-class cities, and other cities that adopt the plan. MPORS also has an option for members to participate in a Deferred Retirement Option Plan (DROP). Member, employer, and state contributions and earnings on investments fund the benefits of the plan.* The MPORS net position restricted for pension benefits at June 30, 2017 amounted to $384.1 million, an increase of $40.4 million (11.8%) from $343.6 million at June 30, 2016.

Additions to the MPORS net position restricted for pension benefits include employer, member, and state contributions, and investment income. For the fiscal year ended June 30, 2017, contributions increased to $25.5 million from $25.1 million in fiscal year 2016, for an increase of $454 thousand (1.8%). Contributions increased due to an increase in active members contributing to the plan. The plan recognized total net investment income of $39.8 million for the fiscal year ended June 30, 2017, compared with total net investment income of $7.1 million for fiscal year ended June 30, 2016, an increase of $32.7 million (459.3%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the MPORS net position restricted for pension benefits include retirement benefits, refunds, and administrative expenses. For fiscal year 2017 benefits amounted to $23.5 million, an increase of $1.5 million (6.9%) from fiscal year 2016. The increase in benefit payments was due to the increase in benefit recipients and the increase in the average recipient's benefit due to the guaranteed annual benefit adjustment (GABA) or the minimum benefit adjustment for non-GABA recipients. For fiscal year 2017, refunds amounted to $1.0 million, a decrease of $326 thousand (23.8%) from fiscal year 2016. The decrease in refunds was due to fewer refund requests from members. For fiscal year 2017, administrative expenses were $339 thousand, an increase of $65.4 thousand (23.9%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the MPORS and disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

An actuarial valuation of the MPORS assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent actuarial valuation, the number of years to amortize the unfunded actuarial liability decreased to 16 years from 18 years at June 30,

2016. The funded status of the plan decreased to 68.66% at June 30, 2017 from 68.79% at June 30, 2016.

The MPORS actuarial value of assets was less than actuarial liabilities by $176.3 million at June 30, 2017, compared with $162.0 million at June 30, 2016. The increase in the actuarial liability as of the last actuarial valuation is a result of recognizing other liability gains of $485.5 thousand and losses of $16.5 million due to changes in actuarial assumptions and methods. However, even in recognizing past investment gains of $922.1 thousand, it still resulted in a total liability loss adding $16.0 million to the actuarial liability during fiscal year 2017.

## FURS

*The FURS provides retirement, disability, and death benefits for firefighters employed by first- and second-class cities; other cities and rural fire departments that adopt the plan; and firefighters hired by the Montana Air National Guard (MANG) on or after October 1, 2001. Member, employer, and state contributions, and earnings on investments fund the benefits of the plan.* The FURS net position restricted for pension benefits at June 30, 2017, amounted to $395.5 million, an increase of $43.9 million (12.5%) from $351.6 million at June 30, 2016.

Additions to the FURS net position restricted for pension benefits include employer, member, and state contributions, and investment income. For the fiscal year ended June 30, 2017, contributions increased to $25.9 million from $24.9 million in fiscal year 2016, an increase of $979 thousand (3.9%). Contributions increased due to an increase of active members contributing to the plan. The plan recognized total net investment income of $40.8 million for the fiscal year ended June 30, 2017, compared with total net investment income of $7.3 million for the fiscal year ended June 30, 2016, an increase of $33.5 million (458.6%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the FURS net position restricted for pension benefits include retirement benefits, refunds, and administrative expenses. For fiscal year 2017, benefits amounted to $22.3 million, an increase of $1.4 million (6.9%) from fiscal year 2016. The increase in benefit payments was due to the increase in benefit recipients and the increase in the average recipient's benefit due to the guaranteed annual benefit adjustment (GABA) or the minimum benefit adjustment for non-GABA recipients. For fiscal year 2017, refunds amounted to $169 thousand, an increase of $123 thousand (267.3%) from $46 thousand in fiscal year 2016. Although the number of refund requests stayed the same, the increase in refunded amounts was due to refunds being processed for larger dollar amounts. For fiscal year 2017, administrative expenses were $320 thousand, an increase of $60.7 thousand (23.4%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the FURS and disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

An actuarial valuation of the FURS assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent actuarial valuation, the years to amortize the unfunded actuarial liability increased to 10 years from 9 years at June 30, 2016. The funded status of the plan decreased to 76.13%

at June 30, 2017 from 78.27% at June 30, 2016.

The FURS actuarial value of assets was less than actuarial liabilities by $124.7 million at June 30, 2017, compared with $101.4 million at June 30, 2016. The increase in unfunded actuarial liability as of the last actuarial valuation is a result of recognizing other liability losses of $13.3 million and $17.7 million due to changes in actuarial assumptions and methods. However, even in recognizing past investment gains of $909.7 thousand, it still resulted in a total liability loss adding $30.1 million to the actuarial liability during fiscal year 2017.

## VFCA

*The VFCA provides retirement, disability, and death benefits for volunteer firefighters who are members of eligible volunteer fire companies in unincorporated areas. State contributions and earnings on investments fund the benefits of the plan.* The VFCA net position restricted for pension benefits at June 30, 2017 amounted to $36.6 million, an increase of $2.7 million (8.1%) from $33.9 million at June 30, 2016.

Additions to the VFCA net position restricted for pension benefits include state contributions and investment income. For the fiscal year ended June 30, 2017, contributions increased to $2.1 million from $2.0 million in fiscal year 2016, an increase of $28 thousand (1.4%). Contributions increased because of increased fire insurance premium taxes distributed to the VFCA from the general fund. The plan recognized total net investment income of $3.8 million for the fiscal year ended June 30, 2017, compared with total net investment income of $623 thousand for the fiscal year ended June 30, 2016, an increase of $3.2 million (515.6%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the VFCA net position restricted for pension benefits include retirement benefits, administrative expenses, and supplemental insurance payments. For fiscal year 2017, benefits amounted to $2.9 million, an increase of $236 thousand (9.0%) from fiscal year 2016. The increase in benefit payments was due to the increase in benefit recipients. For fiscal year 2017, administrative expenses amounted to $289 thousand, an increase of $47 thousand (19.5%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the VFCA and disclosure and audit costs associated with Governmental Accounting Standards Board (GASB) Statements No. 67 and 68. For fiscal year 2017, supplemental insurance payments amounted to $6 thousand, a decrease of $6 thousand from fiscal year 2016. The decrease was due to delayed submission of supplemental insurance claims by VFCA companies.

An actuarial valuation of the VFCA assets and benefit obligations is performed annually. At June 30, 2017, the date of the most recent actuarial valuation, the number of years to amortize the unfunded actuarial liability decreased to 6 years from 7 years at June 30, 2016 and the funded status of the plan increased to 80.56% at June 30, 2017 from 80.21% at June 30, 2016.

The VFCA actuarial value of assets was less than actuarial liabilities by $8.9 million at June 30, 2017, compared with $8.7 million at June 30, 2016. The increase in unfunded actuarial liability as of the last actuarial valuation is a result of recognizing other liability gains of

$619.2 thousand and $2.1 million due to the changes in actuarial assumptions and methods. However, even in recognizing past investment gains of $48.3 thousand, it still resulted in a total liability loss adding $1.5 million to the actuarial liability during fiscal year 2017.

## *Actuarial Valuations and Funding Progress*

An experience study was performed during fiscal year 2017 for the six-year period of July 1, 2010 to June 30, 2016. The experience study resulted in changes to demographic and economic actuarial assumptions and implementation of new actuarial factors.

An actuarial valuation of each of the defined benefit plans is performed annually. The most recent actuarial valuation was performed for fiscal year ended June 30, 2017. The DCRP Disability OPEB plan valuation was last performed on June 30, 2017.

The PERB's funding objective is to meet long-term benefit obligations through investment income and contributions. Employer and member contributions and other contributions for some systems, and the income from investments provide the cash flow needed to finance future retirement benefits. The Actuarial Determined Contribution (ADC) is a critical component of funding for defined benefit plans. The ADC, as defined by GASB, is a target or recommended contribution to a defined benefit pension plan for the reporting period. The ADC is determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Investment earnings are also critical to the defined benefit plans' funding; investment losses deteriorate the plans' funding. Positive market returns were experienced in fiscal years 2010 through 2017. The asset smoothing methods utilized by the plans limits the impacts to four years. The funding status for all defined benefit plans decreased in the latest valuation, except for JRS and VFCA which had slight increases.

As required by Article VIII, section 15, of the Montana Constitution and section 19-2-409, MCA, the public retirement plans are to be funded on an actuarially sound basis. Public pension plans are considered actuarially sound if the unfunded actuarial accrued liability amortization period is 30 years or less. All systems were funded on an actuarially sound basis in 2007 and 2008. The impact of negative investment returns in 2008 and 2009 resulted in the PERS-DBRP not amortizing in fiscal years 2009, 2010, 2011, and 2012; SRS not amortizing in fiscal years 2009 through 2016; and GWPORS not amortizing within 30 years in fiscal years 2009 through 2017.

According to the PERB's June 30, 2017 actuarial valuations, the unfunded liability of HPORS and GWPORS does not amortize within 30 years.

Overall, funding ratios range from a high of 167.06% (JRS) to a low of 64.35% (HPORS). The actuary performs a smoothing of investment gains or losses over a period of four years. At June 30, 2017, the actuarial value of assets of all plans was more than the market value of assets by $49 million due to an average positive 11.78% market return in fiscal year 2017.

## *Defined Contribution Plans*

The PERB administers two defined contribution plans: The Public Employees'

Retirement System-Defined Contribution Retirement Plan (PERS-DCRP) and the Deferred Compensation (457) Plan. The schedules of Fiduciary Net Position and Changes in Fiduciary Net Position for the two defined contribution plans including comparative totals from fiscal year 2016 are also included.

## PERS-DCRP

*The PERS-DCRP is established under section 401(a) of the Internal Revenue Code and Title 19, chapters 2 & 3 of the Montana Code Annotated (MCA). This plan provides retirement, disability, and death benefits for plan members. This plan was available to all active PERS members effective July 1, 2002. All new members are initially members of the PERS-DBRP and have a 12-month window during which they may choose to remain in the PERS-DBRP or join the PERS-DCRP by filing an irrevocable election. The plan member and employer contributions and earnings on investments fund the benefits of the plan.* The PERS-DCRP net position restricted for pension benefits at June 30, 2017, amounted to $193.6 million, an increase of $37.3 million (23.9%) from $156.3 million at June 30, 2016.

Additions to the PERS-DCRP net position restricted for pension benefits include contributions and investment income. For the fiscal year ended June 30, 2017, contributions increased to $23.0 million from $17.5 million in fiscal year 2016, an increase of $5.5 million (31.7%). Contributions increased due to an increase in the total compensation reported as a result of an increase in active participants and an increase in employer contribution rates. The plan recognized net investment income of $22.4 million for fiscal year ended 2017, compared with net investment income of $1.4 million in fiscal year 2016, an increase of $20.9 million (1,466.8%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the PERS-DCRP net position restricted for pension benefits include member distributions, administrative expenses, and miscellaneous expenses. For fiscal year 2017, distributions amounted to $7.0 million, an increase of $1.7 million (32.8%) from fiscal year 2016. The increase in distributions was due to more defined contribution members taking IRS permitted rollovers and periodic or lump sum distributions at larger dollar amounts. For fiscal year 2017, the costs of administering the plan amounted to $824 thousand, an increase of $164 thousand (24.8%) from fiscal year 2016. The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the PERS-DCRP.

*Miscellaneous expenses* are the PERB's administrative fees assessed by the vendors based on account balances. *Miscellaneous expenses* increased to $225 thousand in fiscal year 2017 from $164 thousand in fiscal year 2016, an increase of $61 thousand (37.2%). The increase in miscellaneous expenses was due to increased investment income.

## Deferred Compensation (457(b)) Plan

*The Deferred Compensation Plan is established under section 457(b) of the Internal Revenue Code and Title 19, chapter 50 of the Montana Code Annotated (MCA). This plan is a voluntary supplemental retirement savings plan for those who are eligible and choose to participate. The Deferred Compensation Plan is funded by contributions and by investment earnings.* The Deferred Compensation net position restricted for pension benefits at

June 30, 2017 amounted to $480.2 million, an increase of $31.5 million (7.0%) from $448.7 million at June 30, 2016.

Additions to the Deferred Compensation Plan net position restricted for pension benefits include contributions and investment income. For fiscal year 2017, contributions increased to $24.4 million from $22.2 million in fiscal year 2016, an increase of $2.2 million (10.2%). The increase is due to more participants actively contributing to the plan. The plan recognized net investment income of $35.9 million for fiscal year 2017, compared with net investment income of $7.3 million for fiscal year 2016, an increase of $28.6 million (391.1%). The increase in investment income is a result of moderate growth and continued improvements in the labor market, with combined low inflation.

Deductions from the Deferred Compensation Plan net position restricted for pension benefits include member and beneficiary distributions, administrative expenses, and miscellaneous expenses. For fiscal year 2017, distributions amounted to $27.3 million, an increase of $7.1 million (35.3%) from $20.2 million in fiscal year 2016. The increase in distributions was due to more deferred compensation participants taking distributions. The administrative expenses increased to $613 thousand in fiscal year 2017 from $512 thousand in fiscal year 2016, an increase of $101 thousand (19.7%). The increase in administrative expenses for fiscal year 2017 was due to the increased expenses associated with the implementation of a new computer system to modernize administration of the Deferred Compensation Plan.

*Miscellaneous expenses* are the PERB's administrative fees assessed by the vendors based on account balances. *Miscellaneous expenses* increased to $846 thousand in fiscal year 2017 from $427 thousand in fiscal year 2016, an increase of $419 thousand (98.1%) from fiscal year 2016. The increase in miscellaneous expenses was due to the increased investment income.

## Fiduciary Net Position - Defined Contribution Plans

***As of June 30, 2017*** *- and comparative totals for June 30, 2016*

(dollars in thousands)

| | PERS-DCRP | | 457-PLAN | | TOTAL | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| **Assets:** | | | | | | |
| Cash and Receivables | $ 2,067 | 2,125 | 647 | 540 | 2,714 | 2,665 |
| Securities Lending Collateral | | 4 | | 1 | | 5 |
| Investments | 192,153 | 154,050 | 479,575 | 448,142 | 671,728 | 602,192 |
| Property and Equipment | 4 | 4 | 3 | 3 | 7 | 7 |
| Intangible Assets | 310 | | 368 | | 678 | |
| Capital Assets | | 285 | | 339 | | 624 |
| Total Assets | 194,534 | 156,468 | 480,593 | 449,025 | 675,127 | 605,493 |
| **Liabilities:** | | | | | | |
| Securities Lending Liability | | 4 | | 1 | | 5 |
| Other Payables | 901 | 146 | 403 | 360 | 1,304 | 506 |
| Total Liabilities | 901 | 150 | 403 | 361 | 1,304 | 511 |
| Total Net Position - restricted for pensions | $ 193,633 | 156,318 | 480,190 | 448,664 | 673,823 | 604,982 |

## Changes In Fiduciary Net Position - Defined Contribution Plans

***For the year ended June 30, 2017*** *- and comparative totals for June 30, 2016*

(dollars in thousands)

| | PERS-DCRP | | 457-PLAN | | TOTAL | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| **Additions:** | | | | | | |
| Contributions | $ 23,045 | 17,499 | 24,434 | 22,174 | 47,479 | 39,673 |
| Investment Income (Loss) | 22,368 | 1,428 | 35,889 | 7,308 | 58,257 | 8,736 |
| Total Additions | 45,413 | 18,927 | 60,323 | 29,482 | 105,736 | 48,409 |
| **Deductions:** | | | | | | |
| Benefits | | | | | | |
| Distributions | 7,038 | 5,299 | 27,329 | 20,193 | 34,367 | 25,492 |
| OPEB Expenses | 12 | 11 | 8 | 9 | 20 | 20 |
| Administrative Expenses | 824 | 660 | 613 | 512 | 1,437 | 1,172 |
| Miscellaneous Expenses | 225 | 164 | 846 | 427 | 1,071 | 591 |
| Total Deductions | 8,099 | 6,134 | 28,796 | 21,141 | 36,895 | 27,275 |
| Incr/(Decr) in Net Position | $ 37,314 | 12,793 | 31,527 | 8,341 | 68,841 | 21,134 |

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# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Statement of Fiduciary Net Position - Pension (And Other Employee Benefit) Trust Funds**

as of June 30, 2017

| | PERS-DBRP | PERS-DCRP DISABILITY OPEB | JRS | HPORS | SRS | GWPORS |
|---|---|---|---|---|---|---|
| ***Assets*** | | | | | | |
| Cash and Short-term Investments | $ 142,261,072 | 302,356 | 2,405,344 | 3,802,572 | 8,545,606 | 4,396,362 |
| Securities Lending Collateral (Note A6) | 31,162,478 | | 549,614 | 797,749 | 1,883,850 | 1,001,673 |
| Receivables | | | | | | |
| Interest | 131,118 | 248 | 2,197 | 3,291 | 7,862 | 4,222 |
| Accounts Receivable | 3,115,546 | 20,325 | 229 | 219,184 | 347,094 | 24,194 |
| Due from Other Funds | 638,328 | 5,272 | | | | |
| Due from Primary Government | 6,051,738 | | | | | |
| Notes Receivable | 25,634 | | | | | |
| *Total Receivables* | 9,962,364 | 25,845 | 2,426 | 222,475 | 354,956 | 28,416 |
| Investments, at fair value (Note A6) | | | | | | |
| Commingled Equity Securities | | 3,461,740 | | | | |
| CAPP Investment Pool | 5,326,238,203 | | 93,939,152 | 136,349,879 | 321,984,454 | 171,204,195 |
| Defined Contributions Fixed Investments | | | | | | |
| Defined Contributions Variable Investments | | | | | | |
| Deferred Compensation Life Insurance | | | | | | |
| *Total Investments* | 5,326,238,203 | 3,461,740 | 93,939,152 | 136,349,879 | 321,984,454 | 171,204,195 |
| Capital Assets | | | | | | |
| Property and Equipment, at cost, | | | | | | |
| net of Accumulated Depreciation (Note A2) | 33,307 | | 366 | 311 | 366 | 366 |
| Intangible Assets at cost, | | | | | | |
| net of amortization expense | 1,297,993 | | 380,981 | 323,391 | 380,981 | 380,981 |
| *Total Capital Assets* | 1,331,300 | | 381,347 | 323,702 | 381,347 | 381,347 |
| ***Total Assets*** | 5,510,955,417 | 3,789,941 | 97,277,883 | 141,496,377 | 333,150,213 | 177,011,993 |
| ***Liabilities*** | | | | | | |
| Securities Lending Liability | 31,162,478 | | 549,614 | 797,749 | 1,883,850 | 1,001,673 |
| Accounts Payable | 2,936,534 | 800 | 53,209 | 105,986 | 187,351 | 59,362 |
| Unearned Revenue | 176,366 | | 589 | 680 | 2,402 | 6,508 |
| Due to Other Funds | 286,421 | | 14,046 | 47,161 | 150,625 | 91,946 |
| Compensated Absences | 427,290 | | 53 | 45 | 53 | 53 |
| OPEB Implicit Rate Subsidy LT | 593,977 | | 5,349 | 6,049 | 11,006 | 9,071 |
| Total Liabilities | 35,583,066 | 800 | 622,860 | 957,670 | 2,235,287 | 1,168,613 |
| *Net Position - Restricted for Pension Benefits* | $ 5,475,372,351 | 3,789,141 | 96,655,023 | 140,538,707 | 330,914,926 | 175,843,380 |

*The notes to the financial statements are an integral part of this statement.*

| Defined Benefit Pension Plans | | | | Defined Contribution Plans | | | |
|---|---|---|---|---|---|---|---|
| MPORS | FURS | VFCA | Total Defined Benefit Pension Plans | PERS-DCRP | 457 Plan | Total Defined Contribution Plans | Total Pension Trust Funds 2017 |
| 9,450,613 | 9,784,215 | 1,010,429 | 181,958,569 | 1,611,803 | 96,398 | 1,708,201 | 183,666,770 |
| 2,109,054 | 2,170,708 | 207,276 | 39,882,402 | | | | 39,882,402 |
| 8,442 | 8,882 | 1,414 | 167,676 | 976 | 130 | 1,106 | 168,782 |
| 210,444 | 288,445 | 4,265 | 4,229,726 | 172,679 | 551,152 | 723,831 | 4,953,557 |
| | | | 643,600 | 281,149 | | 281,149 | 924,749 |
| 13,960,571 | 14,438,412 | | 34,450,721 | | | | 34,450,721 |
| | | | 25,634 | | | | 25,634 |
| 14,179,457 | 14,735,739 | 5,679 | 39,517,357 | 454,804 | 551,282 | 1,006,086 | 40,523,443 |
| | | | 3,461,740 | | | | 3,461,740 |
| 360,475,945 | 371,013,776 | 35,427,313 | 6,816,632,917 | | | | 6,816,632,917 |
| | | | | 14,154,738 | 238,057,498 | 252,212,236 | 252,212,236 |
| | | | | 177,998,074 | 241,505,107 | 419,503,181 | 419,503,181 |
| | | | | | 12,316 | 12,316 | 12,316 |
| 360,475,945 | 371,013,776 | 35,427,313 | 6,820,094,657 | 192,152,812 | 479,574,921 | 671,727,733 | 7,491,822,390 |
| 328 | 324 | 298 | 35,666 | 4,053 | 3,333 | 7,386 | 43,052 |
| 341,111 | 336,681 | 310,101 | 3,752,220 | 310,101 | 367,691 | 677,792 | 4,430,012 |
| 341,439 | 337,005 | 310,399 | 3,787,886 | 314,154 | 371,024 | 685,178 | 4,473,064 |
| 386,556,508 | 398,041,443 | 36,961,096 | 7,085,240,871 | 194,533,573 | 480,593,625 | 675,127,198 | 7,760,368,069 |
| 2,109,054 | 2,170,709 | 207,275 | 39,882,402 | | | | 39,882,402 |
| 210,189 | 221,799 | 17,427 | 3,792,657 | 776,318 | 329,270 | 1,105,588 | 4,898,245 |
| 32,684 | 17,840 | 1,030 | 238,099 | | | | 238,099 |
| 127,369 | 110,990 | 96,191 | 924,749 | | | | 924,749 |
| 47 | 47 | 44 | 427,632 | 56,587 | 27,237 | 83,824 | 511,456 |
| 9,614 | 8,497 | 8,186 | 651,749 | 68,097 | 46,645 | 114,742 | 766,491 |
| 2,488,957 | 2,529,882 | 330,153 | 45,917,288 | 901,002 | 403,152 | 1,304,154 | 47,221,442 |
| 384,067,551 | 395,511,561 | 36,630,943 | 7,039,323,583 | 193,632,571 | 480,190,473 | 673,823,044 | 7,713,146,627 |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Statement of Changes in Fiduciary Net Position - Pension (And Other Employee Benefit) Trust Funds**

for the year ended June 30, 2017

| | PERS-DBRP | PERS-DCRP DISABILITY OPEB | JRS | HPORS | SRS | GWPORS |
|---|---|---|---|---|---|---|
| **Additions** | | | | | | |
| **Contributions (Note C)** | | | | | | |
| Employer | $ 103,702,242 | 392,100 | 1,800,105 | 5,782,258 | 7,542,219 | 4,463,401 |
| Plan Member | 100,709,749 | | 488,208 | 1,949,795 | 7,188,307 | 5,262,410 |
| Interest Reserve Buyback | 58,390 | | | | 550 | 15,731 |
| Retirement Incentive Program | 70,335 | | | | | |
| Miscellaneous Revenue | 129,317 | | | | 19,886 | 230 |
| State Contributions | 896,324 | | | 262,884 | | |
| Coal Tax Transfers | 27,861,139 | | | | | |
| Nonvested Member Forfeitures | | | | | | |
| *Total Contributions* | 233,427,496 | 392,100 | 2,288,313 | 7,994,937 | 14,750,962 | 9,741,772 |
| **Investments (Note A6)** | | | | | | |
| Net Appreciation (Depreciation) in Fair Value of Investments | 340,218,861 | 332,198 | 6,227,974 | 8,481,582 | 22,149,916 | 12,279,000 |
| Interest | 268,475,808 | 2,289 | 4,442,961 | 7,057,647 | 14,397,721 | 6,855,483 |
| Dividends | 9,576,416 | | 167,550 | 244,644 | 573,200 | 298,658 |
| Investment Expense | (27,684,610) | (1,712) | (485,376) | (707,368) | (1,661,927) | (870,821) |
| *Net Investment Income* | 590,586,475 | 332,775 | 10,353,109 | 15,076,505 | 35,458,910 | 18,562,320 |
| Securities Lending Income | | | | | | |
| Securities Lending Income | 1,570,674 | 7 | 27,519 | 40,128 | 94,189 | 49,255 |
| Securities Lending Rebate and Fees | (618,560) | (3) | (10,838) | (15,802) | (37,096) | (19,401) |
| *Net Securities Lending Income* | 952,114 | 4 | 16,681 | 24,326 | 57,093 | 29,854 |
| ***Total Net Investment Income*** | 591,538,589 | 332,779 | 10,369,790 | 15,100,831 | 35,516,003 | 18,592,174 |
| ***Total Additions*** | 824,966,085 | 724,879 | 12,658,103 | 23,095,768 | 50,266,965 | 28,333,946 |
| **Deductions (Note C)** | | | | | | |
| Benefits | 366,354,719 | 54,135 | 3,554,335 | 11,036,794 | 16,700,117 | 5,809,910 |
| Refunds/Distributions | 12,252,007 | | | 244,597 | 1,383,061 | 1,035,917 |
| Refunds to Other Plans | 73,930 | | | | 32,940 | |
| Transfers to DCRP | 1,419,600 | | | | | |
| Transfers to MUS-RP | 127,663 | | | | | |
| Supplemental Insurance Payments | | | | | | |
| OPEB Expenses | 104,250 | | 674 | 466 | 549 | 549 |
| Administrative Expenses | 5,120,478 | | 253,789 | 248,124 | 387,378 | 328,699 |
| Miscellaneous Expenses | | | | | | |
| ***Total Deductions*** | 385,452,647 | 54,135 | 3,808,798 | 11,529,981 | 18,504,045 | 7,175,075 |
| ***Net Increase (Decrease)*** | 439,513,438 | 670,744 | 8,849,305 | 11,565,787 | 31,762,920 | 21,158,871 |
| *Net Position Restricted for Pension Benefits* | | | | | | |
| Beginning of Year | 5,035,858,913 | 3,118,397 | 87,805,718 | 128,972,920 | 299,152,006 | 154,684,509 |
| End of Year | $ 5,475,372,351 | 3,789,141 | 96,655,023 | 140,538,707 | 330,914,926 | 175,843,380 |

*The notes to the financial statements are an integral part of this statement.*

| Defined Benefit Pension Plans | | | | Defined Contribution Plans | | | |
|---|---|---|---|---|---|---|---|
| MPORS | FURS | VFCA | Total Defined Benefit Pension Plans | PERS-DCRP | 457 Plan | Total Defined Contribution Plans | Total Pension Trust Funds 2017 |
| 7,081,194 | 6,483,298 | | 137,246,817 | 10,751,840 | 77,241 | 10,829,081 | 148,075,898 |
| 4,464,528 | 4,925,341 | | 124,988,338 | 11,827,865 | 23,769,800 | 35,597,665 | 160,586,003 |
| 1,102 | 84 | | 75,857 | | | | 75,857 |
| | | | 70,335 | | | | 70,335 |
| 10,052 | 16,478 | | 175,963 | 68,475 | 586,754 | 655,229 | 831,192 |
| 13,960,572 | 14,438,412 | 2,064,561 | 31,622,753 | | | | 31,622,753 |
| | | | 27,861,139 | | | | 27,861,139 |
| | | | | 396,650 | | 396,650 | 396,650 |
| 25,517,448 | 25,863,613 | 2,064,561 | 322,041,202 | 23,044,830 | 24,433,795 | 47,478,625 | 369,519,827 |
| 26,093,998 | 27,080,376 | 2,074,318 | 444,938,223 | 17,912,572 | 23,068,072 | 40,980,644 | 485,918,867 |
| 14,845,381 | 14,953,019 | 1,874,369 | 332,904,678 | 4,512,349 | 13,794,081 | 18,306,430 | 351,211,108 |
| 642,176 | 658,942 | 62,802 | 12,224,388 | | | | 12,224,388 |
| (1,864,390) | (1,913,928) | (180,362) | (35,370,494) | (57,034) | (973,290) | (1,030,324) | (36,400,818) |
| 39,717,165 | 40,778,409 | 3,831,127 | 754,696,795 | 22,367,887 | 35,888,863 | 58,256,750 | 812,953,545 |
| 105,520 | 108,313 | 10,258 | 2,005,863 | 29 | 3 | 32 | 2,005,895 |
| (41,572) | (42,672) | (4,039) | (789,983) | (13) | (1) | (14) | (789,997) |
| 63,948 | 65,641 | 6,219 | 1,215,880 | 16 | 2 | 18 | 1,215,898 |
| 39,781,113 | 40,844,050 | 3,837,346 | 755,912,675 | 22,367,903 | 35,888,865 | 58,256,768 | 814,169,443 |
| 65,298,561 | 66,707,663 | 5,901,907 | 1,077,953,877 | 45,412,733 | 60,322,660 | 105,735,393 | 1,183,689,270 |
| 23,474,602 | 22,335,636 | 2,858,443 | 452,178,691 | | | | 452,178,691 |
| 1,043,487 | 168,422 | | 16,127,491 | 7,037,396 | 27,329,422 | 34,366,818 | 50,494,309 |
| | | | 106,870 | | | | 106,870 |
| | | | 1,419,600 | | | | 1,419,600 |
| | | | 127,663 | | | | 127,663 |
| | | 6,450 | 6,450 | | | | 6,450 |
| 491 | 485 | 447 | 107,911 | 11,770 | 7,915 | 19,685 | 127,596 |
| 339,344 | 320,213 | 288,897 | 7,286,922 | 824,160 | 612,807 | 1,436,967 | 8,723,889 |
| | | | | 225,104 | 845,518 | 1,070,622 | 1,070,622 |
| 24,857,924 | 22,824,756 | 3,154,237 | 477,361,598 | 8,098,430 | 28,795,662 | 36,894,092 | 514,255,690 |
| 40,440,637 | 43,882,907 | 2,747,670 | 600,592,279 | 37,314,303 | 31,526,998 | 68,841,301 | 669,433,580 |
| 343,626,914 | 351,628,654 | 33,883,273 | 6,438,731,304 | 156,318,268 | 448,663,475 | 604,981,743 | 7,043,713,047 |
| 384,067,551 | 395,511,561 | 36,630,943 | 7,039,323,583 | 193,632,571 | 480,190,473 | 673,823,044 | 7,713,146,627 |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Notes to the Financial Statements

*for the Fiscal Year Ended June 30, 2017*

The Public Employees' Retirement Board (PERB) is an independent, seven-member board, appointed by the Governor. The members are assigned five-year, staggered terms. The PERB consists of two members at large, two active defined benefit public employees, one active defined contribution public employee, one member experienced in investments, and one retired public employee. The PERB approves the annual operating budget, developed by the Montana Public Employee Retirement Administration (MPERA) management, before the beginning of the fiscal year. As governed by statute, the PERB's defined benefit administrative expenses may not exceed 1.5 percent of the total defined benefit plan retirement benefits paid. In addition, the PERB decides legislative priorities, hires the executive director, establishes the policies and procedures that govern operations at MPERA, and hears and rules on appeal matters of disabilities, retirees, and members. Board members do not receive compensation for their service to MPERA, but are reimbursed for necessary expenses incurred while serving.

The PERB oversees ten retirement plans, an OPEB, and the related member education funds. The Public Employees' Retirement System Defined Contribution Disability Other Post-Employment Benefit (PERS-DCRP Disability OPEB) is a trust fund providing a defined benefit for disabled members of the PERS-DCRP. The retirement plans are eight defined benefit plans and two defined contribution plans. The defined benefit retirement plans are the Public Employees' Retirement System (PERS-DBRP), Judges' Retirement System (JRS), Highway Patrol Officers' Retirement System (HPORS), Sheriffs' Retirement System (SRS), Game Wardens' and Peace Officers' Retirement System (GWPORS), Municipal Police Officers' Retirement System (MPORS), Firefighters' Unified Retirement System (FURS), and the Volunteer Firefighters' Compensation Act (VFCA). The defined contribution retirement plans are the Public Employees' Retirement System (PERS-DCRP) and the Deferred Compensation (457) Plan, governed by IRC § 457.

As of fiscal year 2017, the VFCA, for tax reporting purposes, is considered a Length of Service Award Plan.

The PERS-DCRP was implemented July 1, 2002. All new PERS members, after July 1, 2002, have a 12-month window to file an irrevocable plan choice election. PERS members are provided education regarding their decision to participate in the Defined Benefit Retirement Plan (PERS-DBRP) or the Defined Contribution Retirement Plan (PERS-DCRP). If members are employees of the university system they have a third choice, the Montana University System Retirement Program (MUS-RP). Further education is provided for the members who choose the PERS-DCRP, including information on investment choices.

The PERB began oversight of the Deferred Compensation (457) Plan on July 1, 1999. The Deferred Compensation Plan is available to all employees of the State, the Montana University System and contracting political subdivisions.

The MPERA, as a state agency, participates as an employer in the PERS-DBRP, PERS-DCRP and the Deferred Compensation Plan.

The assets of each plan are maintained separately, including member education funds. The assets may be used only for the payment of benefits to the members and administrative expenses of the appropriate plan, in accordance with the terms of each plan as prescribed in Title 19 of the Montana Code Annotated (MCA). The financial statements are presented by combining the PERS-DBRP and the DBRP Education Fund and by combining the PERS-DCRP and the DCRP Education Fund. A presentation of the individual funds is shown at the end of this publication.

## A. Summary of Significant Accounting Policies

### 1. Basis of Accounting

The PERB is a fiduciary component unit Pension Trust Fund of the State of Montana financial reporting entity. The MPERA, staff of the PERB, prepares the accounting records and financial statements for the fiduciary pension trust funds using fund accounting principles and the accrual basis of accounting. For the pension trust funds, member contributions are recognized in the period in which contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Revenues are recognized in the accounting period in which they are earned and become measurable. Benefit payments and refunds/distributions are recognized in the accounting period in which they are due and payable in accordance with benefit terms. Expenses are recognized in the period incurred. Administrative expenses are financed through investment earnings on the pension trust fund for the defined benefit plans. Interfund receivables and payables exist at year-end for defined benefit administrative expenses that are accounted for within PERS-DBRP and allocated to the other defined benefit plans at year-end. Costs specifically related to the MPERAtiv program are charged directly to the individual plans.

For financial reporting purposes, the PERB adheres to accounting principles generally accepted by the United States of America. The PERB applies all applicable pronouncements of the Governmental Accounting Standards Board (GASB).

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* addresses accounting and reporting standards for state and local governmental OPEB plans that are administered through trusts or equivalent arrangements. Implementation of this statement is for fiscal year 2017. In reviewing the PERS-DCRP Disability OPEB plan for implementation of GASB No. 74, it has been determined that the liability is immaterial to the plan, therefore, the PERB will not be implementing GASB Statement No. 74.

On a quarterly basis, participants of the PERS-DCRP are charged a flat basis point fee based on their individual account balances. On a quarterly basis, the participants of the Deferred Compensation Plan are charged a basis point fee on a sliding scale based on their individual account balances. The record keeper, Empower™ Retirement, withholds the basis point fees from participant accounts.

The PERB incurs administrative expenses for the cost of Empower™ services and agency expenses. Fees collected from participant accounts are used to offset the costs of Empower™'s fees. Any remaining fees are remitted to the PERB to cover each plan's plan administrative expenses. The excess basis point fees remitted to the PERB are recorded as *Miscellaneous Revenue* on the financial statements.

## 2. Capital Assets and Equipment Used in Operations

Assets under $5,000 are expensed in the year purchased. Assets (equipment) valued at $5,000 or more are recorded at cost less straight-line depreciation over the estimated useful life of five to ten years. Assets (other intangibles) valued at $100,000 or more are recorded at cost less straight-line depreciation over the estimated useful life of five to ten years. Equipment consists of two servers purchased for the MPERAtiv data cleansing project, a primary file server, and a ScanPro 3000 fiche film reader. Property consists of a remodel to the office space.

The $4,430,012 *Intangible Assests at Cost* on the Statement of Fiduciary Net Position consists of the PERIS computer system. This is an intangible asset and the intangible asset will be amortized over 10 years.

## 3. Operating Lease

Operating leases are rental agreements where the payments are chargeable as rent and recorded as administrative expenses. MPERA renegotiated a 7-year lease for office space in November 2013, at the location of 100 North Park Avenue, Helena, MT. The lease is payable monthly and includes inflationary adjustments over the period of the lease.

## 4. Net Pension Liability of Employers

The net pension liability (the retirement systems' total pension liability determined in accordance with GASB Statement No. 67 less the fiduciary net position at fair value) as of June 30, 2017, is shown in the Schedule of Employers' Net Pension Liability (NPL) at the bottom of the next page.

Actuarial valuations of the ongoing systems involve estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. The information used includes, but is not limited to, the plan provisions, employee data, and financial information provided by the PERB. Amounts determined regarding the NPL are subject to revision with each study as actual results are compared with past expectations and new estimates are made about the future. The last experience study was performed in 2017 using June 30, 2016 valuation data.

The reporting date for the retirement systems is June 30, 2017. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2017 and the Total Pension Liability (TPL) is based on the results of an actuarial valuation date of June 30, 2016, and rolled forward to June 30, 2017 using generally accepted actuarial procedures.

The Schedule of Employers' Net Pension Liability, presented as Required Supplementary Information (RSI) following the notes to the statements, displays multi-year trend information about whether the plan fiduciary net

positions are increasing or decreasing over time relative to the TPL.

A summary of the actuarial assumptions for the retirement system's GASB No. 67 reporting as of the latest actuarial valuation on June 30, 2017 is shown in the table at the bottom of the next page and is shown in the Notes to the RSI. The assumptions used for the retirement systems are based on the results of the 2017 experience study. The discount rate was lowered from 7.75% to 7.65%. The inflation rate was reduced from 3.00% to 2.75%. The wage inflation rate was reduced from 4.00% to 3.50%. The non-disabled mortality and withdrawal assumptions were updated and the salary merit scale was updated.

The long-term expected rate of return on pension plan investments is reviewed regularly as part of experience studies prepared for the System. The results of the most recent experience study was presented in a report dated May 5, 2017. Several factors are considered in evaluating the long-term rate of return assumption, including long-term historical data, estimates inherent in current market data, and an analysis in which best estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation). Estimates of variability and correlations for each asset class, were developed by the System's investment consultant. The ranges were combined to develop the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by the investment consultant are often intended for use over a 10-year investment horizon and are not always useful in setting the long-term rate of return for funding pension plans, which covers a longer

**Employers' Net Pension Liability / (Asset)**
**as of June 30, 2017**

(dollar amounts are in thousands)

| System | Total Pension Liability (a) | Plan Fiduciary Net Position[1] (b) | Employers' Net Pension Liability / (Asset) (a-b) | Plan Fiduciary Net Position as a % of the Total Pension Liability (b/a) | Covered Payroll (c) | Net Position Liability / (Asset) as a % of Covered Employee Payroll ((a-b)/c) |
|---|---|---|---|---|---|---|
| PERS-DBRP | $7,420,146 | $5,472,519 | $1,947,626 | 73.75% | $1,232,067 | 158.08% |
| JRS | 60,798 | 96,654 | (35,856) | 158.98% | 6,974 | (514.10)% |
| HPORS | 218,922 | 140,537 | 78,386 | 64.19% | 14,779 | 530.39% |
| SRS | 407,007 | 330,910 | 76,097 | 81.30% | 74,581 | 102.03% |
| GWPORS | 213,201 | 175,841 | 37,360 | 82.48% | 49,381 | 75.66% |
| MPORS | 561,976 | 384,062 | 177,913 | 68.34% | 48,604 | 366.05% |
| FURS | 508,541 | 395,506 | 113,035 | 77.77% | 45,208 | 250.03% |
| VFCA | 46,718 | 36,630 | 10,087 | 78.41% | N/A[2] | N/A[2] |

[1]The PERS-DB Education Fund balance is not included in the GASB 67 reporting for fiscal year ending June 30, 2017.

[2]Covered payroll is not applicable to VFCA because members are unpaid volunteers.

timeframe. The long-term rate of return assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years. The capital market assumptions provided by the investment consultant yielded a median real rate of return of 3.56%. The average long-term capital market assumptions published in the *Survey of Capital Market Assumptions 2016 Edition* by Horizon Actuarial Service, LLC, yield a median real return of 5.53%. Cavanaugh Macdonald's recommended assumption of 4.9% for the real return reflects granting each source some degree of credibility. Combined with the 2.75% inflation assumption, the resulting nominal return is 7.65%. Best estimates of arithmetic real rates of return for each major asset class included in the Systems target asset allocation as of June 30, 2017, are summarized in the following Target Allocations table.

**Target Allocations as of June 30, 2017**

| Asset Class | Target Asset Allocation | Real Rate of Return Arthimetic Basis |
|---|---|---|
| Cash equivalents | 2.6% | 4.00% |
| Domestic equity | 36.0% | 4.55% |
| Foreign equity | 18.0% | 6.35% |
| Fixed income | 23.4% | 1.00% |
| Private equity | 12.0% | 7.75% |
| Real estate | 8.0% | 4.00% |
| Totals | 100.0% | |

**Summary of Actuarial Assumptions**

| | PERS | JRS | HPORS | SRS | GWPORS | MPORS | FURS | VFCA |
|---|---|---|---|---|---|---|---|---|
| Valuation date | 6/30/2017 | 6/30/2017 | 6/30/2017 | 6/30/2017 | 6/30/2017 | 6/30/2017 | 6/30/2017 | 6/30/2017 |
| Actuarial Cost Method | Entry Age | Entry Age | Entry Age | Entry Age | Entry Age | Entry Age | Entry Age | Entry Age |
| Amortization method | Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open | Level dollar, open |
| Remaining amortization period for Actuarial Contribution | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 20 |
| Asset valuation method | 4-year smoothed, market | 4-year smoothed, market | 4-year smoothed, market | 4-year smoothed, market | 4-year smoothed, market | 4-year smoothed, market | 4-year smoothed, market | 4-year smoothed, market |
| ***Actuarial assumptions:*** | | | | | | | | |
| Investment rate of return compounded annually (net of investment expenses) | 7.65% | 7.65% | 7.65% | 7.65% | 7.65% | 7.65% | 7.65% | 7.65% |
| Projected salary increases: | | | | | | | | |
| General Wage Growth* | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | N/A |
| Merit | 0% - 6.3% | None | 0% - 6.3% | 0% - 6.3% | 0% - 6.3% | 0% - 6.6% | 0% - 6.3% | N/A |
| *Includes inflation at | 2.75% | 2.75% | 2.75% | 2.75% | 2.75% | 2.75% | 2.75% | 2.75% |
| Administrative Expenses as a Percentage of Payroll | 0.26% | 0.18% | 0.30% | 0.21% | 0.17% | 0.24% | 0.23% | $89,298 |
| Mortality (healthy): RP-2000 Combined Mortality projected to 2020 using Scale BB and Mortality (disabled): RP-2000 Combined Mortality with no projections. | | | | | | | | |
| *Benefit Adjustments* | | | | | | | | |
| GABA | 3% or 1.5% for new hires on or after July 1, 2007 and June 30, 2013; or 1.5% to 0% if hired on or after July 1,2013; after 1 year | 3% after 1 year | 3% after 1 yr or 1.5% after 3 years if hired on or after July 1, 2013 | 3% or 1.5% for new hires on or after July 1, 2007, after 1 year | 3% or 1.5% for new hires on or after July 1, 2007, after 1 year | 3% after 1 year | 3% afer 1 year | N/A |
| Non-GABA | N/A | Biennial increase to salary of active member in like position | 2% per yr service, not to exceed 5%, of probationary officer's base pay | N/A | N/A | 50% newly confirmed officer | 50% newly confirmed officer | N/A |

The discount rate used to measure the TPL for all Systems was 7.65% which is the assumed long-term expected rate of return on investments. The projection of cash flows used to determine the discount rate assumed that member, employer, and state contributions will be made at the contribution rates specified in the applicable Montana statutes, which can only be changed by the Legislature. Based on those assumptions, the fiduciary net position of all the Systems was projected to be available to make all the projected future benefit payments of the current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL.

In accordance with GASB No. 67 regarding the disclosure of the sensitivity of the NPL to changes in the discount rate, the NPL of the participating employers is presented as using the discount rate of 7.65%, as well as what the employers' NPL would be if it were calculated using a discount rate that is 1.00% lower (6.65%) or 1.00% higher (8.65%) than the current rate. The table below presents the sensitivity disclosures for each plan.

**Sensitivity of NPL / (Asset) based on Changes in Discount Rate as of June 30, 2017**

(dollar amounts are in thousands)

| System | 1% Decrease 6.65% | Current Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| PERS-DBRP | $ 2,836,551 | $ 1,947,626 | $ 1,201,441 |
| JRS | (29,908) | (35,856) | (40,986) |
| HPORS | 108,542 | 78,386 | 53,937 |
| SRS | 134,369 | 76,097 | 28,423 |
| GWPORS | 70,055 | 37,360 | 10,736 |
| MPORS | 259,049 | 177,913 | 112,860 |
| FURS | 187,835 | 113,035 | 52,600 |
| VFCA | 14,675 | 10,087 | 6,202 |

As can be seen from the table, changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate.

The annual money-weighted rate of return on plan investments shows investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. A schedule of the annual money-weighted rate of return for all Systems is presented in the table at the top of the next column and in the RSI.

**Annual Money-Weighted Rate of Return as of June 30, 2017**

| | | | |
|---|---|---|---|
| PERS-DBRP | 11.94% | GWPORS | 11.97% |
| JRS | 11.96% | MPORS | 11.92% |
| HPORS | 11.92% | FURS | 11.93% |
| SRS | 11.96% | VFCA | 11.89% |

## 5. Other Post-Employment Benefits (OPEB for Health Care)

*Plan Description:* MPERA employees and dependents are eligible to receive health care through the State Group Benefits Plan administered by the Montana Department of Administration. In accordance with section 2-18-704, MCA, the State provides optional post-employment medical, vision, and dental health care benefits to the following employees and dependents electing to continue coverage and pay administratively established premiums: (1) employees who retire under applicable retirement provisions and their dependents; and (2) surviving dependents of deceased employees. Plan coverage is on a calendar year basis. For GASB Statement No. 45 reporting, the State Group Benefits Plan

is considered an agent multiple-employer plan and MPERA is considered to be a separate employer participating in the plan.

In addition to the employee benefits, the following post-employment benefits are provided. The Montana Department of Administration established retiree medical premiums varying between $439 and $1,633 per month for calendar year 2017 depending on the medical plan selected, family coverage, and Medicare eligibility. Retirees pay 100% of the premiums for medical, dental, and vision. Administratively established monthly dental premiums vary between $41.10 and $70.00; monthly vision premiums vary between $7.64 and $22.26; both premiums vary depending on the coverage selected. Basic life insurance in the amount of $14,000 is provided until age 65 or Medicare eligible at a cost of $1.90 per month. The State Benefit Plans reimburse all validated medical claims net of member obligations (annual deductibles and coinsurance of the members' selected medical plan). Dental claims are reimbursed at 50% to 100% of the allowable charges, depending on the services provided. The State acts as secondary payer for retired Medicare-eligible claimants.

*Benefits Not Included in the Actuarial Valuation:* Dental and vision benefits are fully-insured and retirees pay 100% of the cost for both; therefore, no liability for these benefits is calculated in the actuarial valuation. The basic life insurance benefit is not available as an employer-provided group insurance benefit for retirees; therefore, no liability for life insurance is calculated in this valuation.

*Funding Policy:* The following estimates were prepared based on an actuarial valuation prepared as of the year ending December 31, 2015 for the Department of Administration. The resulting State of Montana Actuarial Valuation of Other Post-Employment Benefits Plan (Plan) contains the MPERA data and is available through the following address.

Montana Department of Administration
State Accounting Division
Room 255, Mitchell Bldg
125 N Roberts Street
PO Box 200102
Helena, MT 59620-0102

GASB Statement No. 45 requires the Plan's participants, including MPERA, to report the Annual Required Contribution (ARC) each year. The ARC is an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. It represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year of retiree health care costs and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. The 2017 ARC is calculated collectively for the State Plan's participants and allocated to individual participants. MPERA's 2017 allocated portion of the ARC is estimated at $118,872 and is based on the Plan's current ARC rate of 5.26% of participants' annual covered payroll. MPERA's 2017 ARC is equal to an annual amount required each year to fully fund the liability over 30 years.

*Actuarial Methods and Assumptions:* Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and includes the types of benefits provided

at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in the actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Many of the assumptions adopted by the State of Montana are the same as those used in the actuarial valuations for the pension plans that cover the same employees. Examples include assumptions about marital status at time of retirement, mortality, projected payroll increases, discount rate, participation in the health care system, and the healthcare cost trend. The results of the valuation represent reasonable estimates. However, variation from these or any other estimates of future retiree medical costs is probable, as actual future costs may vary significantly from estimates. Significant differences between actual and expected liability can come from health cost trend or demographic experience which differ from expectations, as well as changes made to benefits offered or to valuation assumptions used.

The Schedule of Funding Progress for OPEB, presented as RSI following the notes to the statements, presents information concerning the actuarial value of plan assets and liabilities. In the January 1, 2015 actuarial valuation, the projected unit cost funding method is used. The actuarial assumptions did not include an investment rate of return since no assets meet the definition of plan assets under GASB Statements No. 43 or No. 45. Annual healthcare costs trend rates of 12% were used for both medical and prescription claims. The unfunded actuarial accrued liability is amortized following a 30-year level percent of pay amortization on an open basis, using a 4.25% discount rate and a 2.50% payroll growth rate assumption.

The State finances claims on a pay-as-you-go basis and does not advance-fund the OPEB liability. While this liability is disclosed for financial statement purposes, it does not represent a legal liability of the State of Montana or MPERA. Therefore, the following cost information shows no value for Plan Assets made by MPERA.

*Annual Other Post-Employment Benefits (OPEB) Cost:* For the fiscal year ending June 30, 2017, the annual OPEB cost (expense) allocated to MPERA increased to $127,595 from the June 30, 2016 amount of $126,238. For the fiscal year ending June 30, 2017, the cumulative interest on the net OPEB obligation increased by $3,911, while in fiscal year 2016 the cumulative interest increased by $9,971.

The PERB annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for 2017 and prior are as follows.

| Annual OPEB Cost | | | |
|---|---|---|---|
| Fiscal Year Ended | Annual OPEB Cost | Percentage of Annual OPEB Cost Contributed | Net OPEB Obligation |
| 6/30/2017 | 127,595 | 24.60% | 766,490 |
| 6/30/2016 | 126,238 | 24.84% | 670,287 |
| 6/30/2015 | 106,126 | 28.19% | 575,413 |

| FY 2017 Net OPEB Obligation | |
|---|---|
| Annual Required Contribution | $ 118,872 |
| Cumulative Interest on Net OPEB | 40,444 |
| Less Amortization | 31,721 |
| Annual OPEB cost | 127,595 |
| Less Contributions Made | 31,392 |
| Change in Net OPEB for Year | 96,203 |
| FY2016 Net OPEB obligation - Beginning of Year | 670,287 |
| Net OPEB obligation - End of Year | $ 766,490 |

*Funded Status and Funding Progress:* The most recent actuarial valuation available by the State of Montana is as of calendar year ending December 31, 2015. This actuarial valuation is completed every two years with the next valuation as of calendar year ending December 31, 2017.

The MPERA allocation of the plan as of the calendar year ending December 31, 2015 was as follows.

| | | |
|---|---|---|
| Actuarial Accrued Liability (AAL) | $ | 1,306,704 |
| Actuarial Value of Plan Assets | $ | 0 |
| Unfunded Actuarial Accrued Liability (UAAL) | $ | 1,306,704 |
| Funded Ratio (Actuarial Value of Plan Assets/AAL) | | 0% |
| Covered Payroll (Active Plan Members) | $ | 2,340,438 |
| UAAL as a Percentage of Covered Payroll | | 55.83% |

## 6. Method Used To Value Investments

According to Article VIII, section 13 of the Montana Constitution and section 19-2-504, MCA, the Board of Investments (BOI) has a fiduciary responsibility for investing the defined benefit plan assets on behalf of the defined benefit plan members. Investments are determined in accordance with the statutorily and constitutionally mandated "prudent expert principle." Pursuant to Article VIII, section 15 of the Montana Constitution and sections 19-2-502 and 19-2-503, MCA, the PERB has a fiduciary responsibility for the administration of the pension trust funds. For the defined benefit pools, the PERB relies on the Investment Policy Statements that are drafted and approved by the BOI. In this process, the BOI utilizes information obtained from RV Kuhns & Associates, Inc., the investment consultant. Investments administered by the BOI for the PERB are subject to their investment risk policies. The PERB does not have an investment policy of its own to address risks. Information on investment policies, investment activity, investment management fees, investment risks, and a listing of specific investments owned by the pooled asset accounts can be obtained by contacting BOI, the investment manager, at the following address.

Montana Department of Commerce
Board of Investments
2401 Colonial Drive, 3rd Floor
PO Box 200126
Helena, MT 59620-0126.

Defined benefit investments are reported at fair value as of June 30, 2017.

BOI has separately issued financial statements that can be accessed by contacting BOI at the above address.

The PERS-DCRP and Deferred Compensation Plan's Montana Fixed Fund is a stable value investment option, administered through outside vendors; Pacific Investment Management Company, LLC (PIMCO), custodial bank State Street Bank and Trust Company (State Street), and third party synthetic Guaranteed Interest Contract (GIC) providers, Transamerica Life Insurance Company

(Transamerica), Prudential Insurance Company of America (Prudential), and Voya Retirement Insurance & Annuity Company (Voya). All money invested in the Montana Fixed Fund investment option of the PERS-DCRP and Deferred Compensation Plan are in a Pooled Trust.

For both the PERS-DCRP and Deferred Compensation Plan, the third party recordkeeper, Empower™ Retirement, tracks and reports the daily trading and valuations of all investment options including the assets held by the individual mutual fund companies.

In addition to the laws cited previously, the PERS-DCRP investments are also governed by section 19-3-2122, MCA and the Deferred Compensation Plan investments are governed by section 19-50-102, MCA.

The PERB has separate investment policy statements for the PERS-DCRP and Deferred Compensation plans. The investment policies are reviewed and revised, if necessary, by the PERB on an annual basis. The investment options are reviewed quarterly by an investment analyst who is an independent third party consultant. In the review, each investment alternative is compared to its peers and the appropriate benchmark. In addition, each investment alternative is reviewed for other indicators including, but not limited to: style drift, duplication, and fund manager or other organizational changes. Investment alternatives that are determined to have a sub-standard performance rating or other negative indicators may be recommended for probation or termination. During the reviews, the PERB may decide to retain, replace or place in a probation status any of the offered mutual funds. DCRP and 457 investments are reported at fair value as of June 30, 2017.

The following are the summaries of a) BOI's fiscal year-end statements, b) the Stable Value Group Trust contracts, and c) a statement about the variable investments.

**BOI - Pooled Investments:** Cash and cash equivalents consist of funds deposited in the State Treasurer's pooled cash account and cash invested in the Short-Term Investment Pool (STIP). Pooled investments other than STIP are reported at fair value on a trade date basis. Effective October 2015, STIP is recorded on a Net Asset Value (NAV) or "fair value" basis. The value of each participating dollar equals the fair value divided by the amortized cost. The fair value of publicly traded stocks and bonds is determined by reference to market prices supplied by State Street Bank (BOI's custodial bank). Because a public market does not exist for private equity and real estate investments, the fair value of these investments is the value reported in the most recent external managers' valuation reports.

Prior to November 2016, the asset allocation for the pension-only funds focused on five pools: the Montana Domestic Equity Pool, Montana Internation Equity Pool, Retirement Funds Bonds Pool, Montana Private Equity Pool, and the Montana Real Estate Pool. The only participants within these pools were the pension systems. In November 2016, upon recommendation from the BOI's Chief Investment Officer, BOI approved that the pension asset allocation was to focus on 13 asset classes versus the five pension only pools. On March 31, 2017,

BOI converted the five pension only pools into a single "Consolidated Asset Pension Pool" (CAPP), with 13 underlying asset classes, to align with BOI's accounting and performance standards with the more detailed assets allocation as formally approved in November 2016 by BOI.

**CAPP'S Underlying Asset Classes**

| | |
|---|---|
| Domestic Equity | Broad Fixed Income |
| International Equity | U.S. Treasury / Agency |
| Private Equity | Investment Grade |
| Natural Resources | Mortgage Backed Securities |
| Real Estate | High Yield |
| TIPS | Cash |
| Diversified Strategies* | |
| *Not funded as of October 1, 2017 | |

As of June 30, 2017, BOI managed two major diversified pools for the retirement funds, Montana Short Term Investment Pool (STIP) and Montana Consolidated Asset Pension Pool (CAPP) The PERS-DCRP Disability OPEB trust fund consists of a portfolio of commingled equity index funds that are recorded under *Commingled Equity Securities* in the financial statements.

*Consolidated Asset Pension Pool (CAPP)*
The Consolidated Asset Pension Pool (CAPP) invests directly in the underlying Pension Asset Classes (PAC) on behalf of the Montana Public Retirement Plans within the BOI-approved asset allocation ranges. Each PAC has an underlying set of investment objectives and investment guidelines. For liquidity purposes, each PAC and external manager has a limited amount of cash/cash equivalents. With the PAC, it is invested in the State Street Short Term Investment Fund (STIF), which invests in high quality short-term securities. For external managers, it is invested per BOI established guidelines.

*Domestic Equity PAC* – Invests primarily in U.S. traded equity securities such as common stock. The type of portfolio structures utilized are separately managed accounts, commingled accounts, and exchange traded funds.

*International Equity PAC* – Invests primarily in international equity securities that trade on foreign exchanges in developed and emerging markets. The type of portolio structures utilized are separately managed accounts, commingled accounts, and exchange traded funds.

*Private Equity PAC* – Invests in the entire capital structure of private companies. Investments are made via Limited Partnerships managed by a General Partner. The Limited Partnerships typically have well defined strategies such as buyout, venture, or distressed debt. Private Equity investments are less liquid than other Asset Classes because the funds require a long holding period. Exchange traded funds are utilized to minimize the cash position.

*Real Estate PAC* – Invests primarily in real estate properities. Transactions are privately negotiated by a General Partner via a Limited Partnership or an open-end fund. The funds typically have well-defined strategies such as core, value-add, or opportunistic. Private Real Estate investments are less liquid than other Asset Classes because the funds require a long holding period. Exchange traded funds are utilized to minimize the cash position.

*Natural Resource PAC* – Invests primarily in energy and timber investments, but could include agriculture, water or commodity related funds. The investments are made via Limited Partnerships managed by a General Partner, and the funds are less

liquid than other Asset Classes because they require a long holding period. Potential Investment vehicles could include open-end funds, master limited partnerships and exchange traded funds.

*Intermediate Treasury Inflation Protected Securities (TIPS) PAC* – Invests primarily in intermediate U.S. TIPS or Treasury securities that are indexed to inflation.

*Intermediate U.S. Treasury/Agency PAC* – Invests primarily in debt obligations of the U.S. government including its agencies and instrumentalities.

*Broad Fixed Income PAC* – Invests primarily in core fixed income securities as represented in the Bloomberg Barclays U.S. Aggregate Bond Index. The type of portfolio structures utilized are separately managed accounts, commingled accounts, and potentially exchange traded funds.

*Intermediate Investment Grade PAC* – Invests primarily in intermediate investment grade corporate bonds typically found in the Bloomberg Barclays U.S. Corporate Bond Index. It includes U.S. dollar denominated securities publicly issued by U.S. and non-U.S. industrial, utility, and financial issuers.

*Mortgage Backed Securities PAC* – Invests primarily in agency mortgage backed securities, asset backed securities and commercial mortgage backed securities.

*High Yield PAC* – Invests primarily in U.S. dollar denominated corporate bonds that are classified as high yield according to the major ratings agencies such as S&P, Moody's or Fitch. The type of portfolio structures utilized are separately managed accounts and potentially commingled accounts or exchange traded funds.

*Cash PAC* – Invests primarily in highly liquid, money-market type securities via STIP.

*Diversified Strategies PAC* – This asset class was approved by BOI in regard to asset allocation in November 2016. This asset class has not been funded as of October 1, 2017. Prior to funding, the BOI's Chief Investment Officer will propose the PAC Investment Objectives and Guidelines for approval by the BOI.

*Short-Term Investment Pool (STIP)*

The Montana Public Retirement Plans investment in the Short-Term Investment Pool (STIP) will provide the Plans with exposure to Cash related investments. STIP invests primarily in short-term, high quality, fixed income securities with a maximum maturity of 397 or less. Variable securities shall have a maximum maturity of 2 years. STIP shall maintain a dollar-weighted average portfolio maturity of 60 days or less. This Pool is managed to preserve principal while providing 24-hour liquidity for state agency and local government participants.

PERB Cash Equivalent and Investment Portfolio
June 30, 2017

| Investment Pools | Fair Value | Net Asset Value (NAV) |
|---|---|---|
| Short-term Investment Pool | $ 170,663,421 | $ 170,663,421 |
| CAPP Investment Pool | 6,816,632,917 | 6,816,632,917 |
| Commingled Equity Securities[1] | 3,461,740 | 3,461,740 |
| Total | $6,990,758,078 | $6,990,758,078 |

[1]DC Disability OPEB is invested by the manager Blackrock in commingled equity index funds measured at NAV.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical method are not classified in the fair value hierarchy. This is the case of the Pension Investment Pool and the Short-Term Investment Pool (STIP).

The Pension Investment Pool, CAPP, is an internal investment pool managed and administered under the direction of Montana BOI as statutorily authorized by the Unified Investment Program. Only the retirement systems can participate in CAPP. On a monthly basis, redemptions are processed by BOI in order to maintain required asset allocations and to provide liquidity for retirement benefits. The fair values of the investments in this category have been determined using the Net Asset Value (NAV) per share (or its equivalent) of the investment. Refer to the fair value measurement note disclosures within BOI's annual financial statements for the underlying investments within the fair value hierarchy.

STIP is an external investment pool managed and administered under the direction of BOI as statuorily authorized by the Unified Investment Program. It is a commingled pool for investment purposes and participant requested redemptions from the pool are redeemed the next business day. The fair values of the investments in this category have been determined using the NAV per share (or its equivalent) of the investment. Refer to the fair value measurement note disclosures within BOI's annual financial statements for the underlying investments within the fair value hierarchy.

The PERS-DCRP Disability OPEB trust fund invests in commingled equity index funds through the manager Blackrock Institutional Trust Co., N.A (Blackrock), recorded under *Commingled Equity Securities* in the financial statements. This type consists of institutional investment funds that invest in domestic equities and funds that invest in international equities. The fair values of the investments of this type have been determined using the NAV per share (or its equivalent) of the investments.

At June 30, 2017, the PERB's portion of the defined benefit investment pools is presented in the table below.

**PERB Portions of BOI Pools at June 30, 2017**

| Investment | Fair Value June 30, 2017 | PERB Portion June 30, 2017 |
|---|---|---|
| STIP | $ 170,663,421 | 2.39% |
| CAPP | 6,816,632,917 | 64.08% |

**Securities Lending Collateral,** governed under the provisions of state statutes, BOI authorized the custodial bank, State Street Bank, to lend BOI's securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. The custodial bank is required to maintain collateral equal to 102 percent of the fair value of domestic securities and 105 percent of the fair value of international securities while the securities are on loan. BOI and the custodial bank split the earnings, 80%/20% respectively, on security lending activities. At June 30, 2017, BOI had no credit risk exposure to borrowers. The private equity and real estate pools do not participate in securities lending. There were no failures by any borrowers to return or pay distributions thereon during the period that resulted in a declaration and notice of Default of the Borrower.

**Fair Value Measurements**

The BOI categorizes their fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to

measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

Level 1: Unadjusted quoted prices for identical instruments in active markets.

Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3: Valuations derived from valuation techniques in which significant inputs are unobservable.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The BOI's assessment of the significance of particular inputs to their fair value measurements requires judgment and considers factors specific to each asset or liability.

The **Investment Risks** for the pooled investments in which the PERB participates in are described in the following paragraphs. Investments are administered by BOI, for the PERB, as part of the State of Montana's Unified Investment Program and the BOI is responsible for setting investment risk policies.

The CAPP as a mixed pool is not subject to certain risks, only foreign currency risk. STIP, as an external investment pool, is subject to credit risk and interest rate risk.

Credit Risk - Credit risk is defined as the risk that an issuer or other counterparty to an investment will not fulfill its obligation. With the exception of U.S. Government securities, the fixed income instruments in the investment pools have credit risk as measured by major credit rating services.

Foreign Currency Risk - Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. Per the CAPP Investment Policy Statement (IPS), the Investment Grade Credit Asset Class, Agency Mortgage Backed Securities Asset Class and High Yield Asset Class Sections have maximum restrictions that can be held on non-U.S. securities in a foreign currency. As of June 30, 2017, there was no receivable or payable balances pertaining to foreign currency forward contracts.

Interest Rate Risk - Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. According to the STIP investment policy "the STIP portfolio will minimize interest rate risk by:

• structuring the investment portfolio so securities mature to meet cash requirements for ongoing operations thereby normally avoiding the need to sell securities on the open market prior to maturity;

• maintaining a dollar-weighted average portfolio maturity (WAM) of 60 days or less (for this purpose, the date to the next coupon reset date will be used for all floating or variable rate securities), and

• STIP will maintain a reserve account."

The PERB's investments subject to credit and interest rate risk at June 30, 2017 are categorized in the following table

| Investment | Fair Value 6/30/2017 | Credit Quality Rating 6/30/2017 | Effective Duration 6/30/2017 WAM* |
|---|---|---|---|
| STIP | $ 170,633,421 | NR | 39 days |

*Weighted Average Maturity (WAM).

Although the STIP investments have been rated by investment security type, STIP, as an external investment pool, has not been rated. As of June 30, 2017, STIP's portfolio held certain variable rate issues. Interest payments on these securities are based on an underlying reference rate, example is LIBOR.

**Stable Value -- Montana Fixed Fund (Fixed Investment)** The Montana Fixed Fund is a stable value investment option of the PERS-DCRP and the Deferred Compensation Plan, and is administered through outside vendors, Pacific Investment Management Company LLC (PIMCO), custodial bank, State Street Bank and Trust Company (State Street), and third-party synthetic Guaranteed Interest Contract (GIC) providers, Transamerica Life Insurance Company (Transamerica), Prudential Insurance Company of America (Prudential) and Voya Retirement Insurance & Annuity Company (Voya). When participants invest in the Montana Fixed Fund option they are guaranteed a fixed rate of return, which may be adjusted in accordance with the terms of the respective contract with the GIC provider. The Montana Fixed Fund employs a synthetic stable value strategy in which the investment and stable value manager, PIMCO, manages a diversified bond portfolio and third party insurers, Transamerica, Prudential and Voya, guarantee the participants' principal investments and earnings in accordance with terms of the respective contract with the GIC provider. Transamerica, Prudential, and Voya calculate a rate of return each quarter called the "crediting rate", which helps smooth participants' earnings over time. The Montana Fixed Fund's structure incorporates a money market-like liquidity strategy and calculates member investments and earnings based on a Net Asset Value (NAV).

The PERS-DCRP and Deferred Compensation Plans' Stable Value investments are synthetic guaranteed investment contracts (GIC) that are fully benefit-responsive and are measured at contract value and do not participate in fair value changes.

The third-party insurers set a fixed quarterly rate of return based on the investment manager's portfolio market value performance, yield, and duration in accordance with the terms of the respective contract with the GIC provider.

All money invested in the Montana Fixed Fund of the PERS-DCRP and Deferred Compensation Plan are held in a Pooled Trust. The Pooled Trust qualifies as a group trust under sections 401(a), including section 401(a)(24) and 501(a), of the Internal Revenue Code (IRC) of 1986, as amended. The Pooled Trust assets are invested by PIMCO and are held under a custodial agreement with State Street. The Pooled Trust assets are invested by PIMCO based on an investment guideline schedule as agreed upon in the Pooled Trust Contract and approved by the PERB, PIMCO, and

any GIC. PIMCO is responsible for setting the investment risk policies for the Pooled Trust. *Credit Risk* is risk that the issuer of a fixed income security may default in making timely principal and interest payments. With the exception of the U.S. Government securities, the Montana Fixed Fund fixed income instruments have credit risk as measured by major credit rating services. Obligations of the U.S. Government or obligations explicitly guaranteed by the U.S. Government are not considered to have credit risk and do not require disclosure of credit quality. The total investments credit quality rating for Montana Fixed Fund is AA. For *Interest Rate Risk* as of June 30, 2017, in accordance with GASB Statement No. 40, PIMCO has selected the effective duration method to disclose interest rate risk. The total effective duration for Montana Fixed Funds fixed income investments, as of June 30, 2017, is 3.79 years. *Foreign Currency Risk* is the risk that changes in exchange rates will adversely affect the fair value of an investment. The Montana Fixed Fund may include securities subject to foreign currency risk.

**Variable Investments** for the PERS-DCRP and Deferred Compensation Plan are held and managed in a selection of retail and institutional mutual funds, which cover all standard asset classes and categories. The selection of offered mutual funds is designed to provide participants with the ability to diversify investments and meet their individual investment goals and strategies. With advice from an independent investment analyst and assistance from the statutorily-created Employee Investment Advisory Council (EIAC), the PERB conducts annual reviews of the offered mutual funds. The goal of the reviews is to ensure that the offered mutual funds meet standards established in the Investment Policy Statements adopted by the PERB. Each investment alternative is compared to its peers and an appropriate benchmark. *Concentration of Credit Risk* is not addressed in the investment policy statements and investments in mutual funds are not required to be disclosed.

Available investment options in the PERS-DCRP and Deferred Compensation Plan are listed later in this publication,. respectively. A current listing may also be obtained by contacting MPERA.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented in the table on the following page for the defined benefit investments and on the subsequent page for the defined contribution investments.

## PERB Defined Benefit Investments Measured at Fair Value

| | | Fair Value Measurements Using | | |
|---|---|---|---|---|
| | June 30, 2017 | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable (Level 3) |
| Investments by fair value level | | | | |
| Total Investments by fair value level[1] | $ | $ | $ | $ |
| Investments measured at the net asset value (NAV) | | | | |
| CAPP Investment Pool[2] | $6,816,632,917 | | | |
| Short Term Investment Pool (STIP) | 170,663,421 | | | |
| Commingled Equity Securities[3] | 3,461,740 | | | |
| Total investments measured at the NAV | $6,990,758,078 | | | |
| Total investments measured at fair value | $6,990,758,078 | | | |

[1]All PERB investments are measured at net asset value (NAV) and not within the fair value level hierarchy.

[2]CAPP Investment Pool is new this fiscal year instead of the five investment pools that have been previously reported.

[2]The DC Disability OPEB trust fund is invested by the manager Blackrock in commingled equity index funds measured at NAV.

## PERB Defined Benefit Investments Measured at Net Asset Value (NAV)

| | June 30, 2017 | | | |
|---|---|---|---|---|
| | Fair Value | Unfunded Commitments | Redemption Frequency (If Currently Eligible) | Redemption Notice Period |
| CAPP Investment Pool[1] | $6,816,632,917 | | Monthly | 30 days |
| Short Term Investment Pool (STIP) | 170,663,421 | | Daily | 1 day |
| Commingled Equity Securities[2] | 3,461,740 | | Daily | 1 day |
| Total investments measured at the NAV | $6,990,758,078 | | | |

[1]CAPP Investment Pool is new this fiscal year instead of the five investment pools that have been previously reported.

[2]The DC Disability OPEB trust fund is invested by the manager Blackrock in commingled equity index funds measured at NAV.

## PERB Defined Contribution and Deferred Compensation Investments Measured at Fair Value

| | | Fair Value Measurements Using | | |
|---|---|---|---|---|
| | June 30, 2017 | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable (Level 3) |
| Investments by fair value level | | | | |
| Total Investments by fair value level[1] | $ | $ | $ | $ |
| Investments measured at the net asset value (NAV) | | | | |
| Montana Fixed Fund (Stable Value Pool)[2] | $ 252,212,236 | | | |
| Variable Pooled Investments[3] | 419,503,181 | | | |
| Short Term Investment Pool[4] | 1,082,988 | | | |
| Total investments measured at the NAV | $ 672,798,405 | | | |
| Total investments measured at fair value | $ 672,798,405 | | | |

[1]All investments are pooled and measured at net asset value (NAV) and not within the fair value level hierarchy.

[2]The Montana Fixed Fund is a stable value option that invests in cash, other liquid investments, and synthetic Guaranteed Investment Contract (GICs) that are fully benefit-responsive and is reported at contract value.

[3]The Variable Pooled Investments are all mutual funds measured at Net Asset Value (NAV).

[4]Short Term Investment Pool (STIP) is an external investment pool managed and administered through Montana Board of Investments (BOI) and fair values are determined using the Net Asset Value (NAV) per share for the investment.

## PERB Defined Contribution and Deferred Compensation Investments Measured at Net Asset Value

| | June 30, 2017 | | | |
|---|---|---|---|---|
| | Fair Value | Unfunded Commitments | Redemption Frequency (If Currently Eligible) | Redemption Notice Period |
| Montana Fixed Fund (Stable Value Pool)[1] | $ 252,212,236 | | Daily | None |
| Variable Pooled Investments[2] | 419,503,181 | | Daily | None |
| Short Term Investment Pool[3] | 1,082,988 | | Daily | 1 day |
| Total investments measured at the NAV | $ 672,798,405 | | | |

[1]The Montana Fixed Fund is a stable value option that invests in cash, other liquid investments, and synthetic Guaranteed Investment Contract (GICs) that are fully benefit-responsive and are reported at contract value.

[2]The Variable Pooled Investments are all mutual funds measured at Net Asset Value (NAV).

[3]Short Term Investment Pool (STIP) is an external investment pool managed and administered through Montana Board of Investments (BOI). The fair values are determined using the Net Asset Value (NAV) per share for the investment.

7. **Subsequent Events**

During the November 2017 Special Legislative Session, Senate Bill 1 was passed temporarily suspending employer contributions to the Judges Retirement System (JRS) beginning the first full pay period of January 2018. This temporary suspension will terminate immediately after the last full pay period of June 2019 and employer contributions will return to 25.81% at this time.

## B. Litigation

Each of the plans administered by the PERB may be involved in various claims and legal actions arising in the ordinary course of business. In the opinion of management and legal counsel, the disposition of those matters should not have a material, adverse effect on any plan's financial position as a whole. The Wrzesien case was decided by the Montana Supreme Court in favor of the PERB and the State and will not impact PERS' financial position. Management and legal counsel also believe the possibility that the plaintiff in Tadman will prevail is remote as the predominant claim in the Complaint was based on reporting mandated in a Private Letter Ruling PERB obtained from the Internal Revenue Service.

***Wrzesien v. State.*** Certain members of PERS who elected to participate in either the PERS Defined Contribution Retirement Plan or the Montana University System Retirement Program (MUS-RP) sued the State of Montana and MPERA in late 2012 over the use of employer contributions to pay off the PERS plan choice rate (PCR). The complaint alleged equal protection and due process violations, and requested issuance of a declaratory judgment granting plaintiffs the employer contributions paid toward the plan choice rate. The complaint was amended in 2013 to include the 1% in employer contributions for DCRP plan members that, pursuant to HB 454 (2013), went to the PERS defined benefit retirement plan starting July 1, 2013. The First Judicial District Court, Judge Reynolds presiding, ruled against the plaintiffs and found that neither the PCR nor the allocation of the additional 1% employer contribution to the defined benefit plan's unfunded actuarial liability violated the plaintiffs' equal protection or substantive due process rights. Plaintiffs appealed this decision to the Montana Supreme Court, which affirmed the lower court on September 28, 2016. The PCR was satisfied effective March 14, 2016 and the employer contributions previously used to pay off the PCR are now paid into PERS-DCRP and MUS-RP plan member accounts.

***Tadman, et al. v. State of Montana.*** A retired member of the Sheriffs' Retirement System filed a class action against the State of Montana on October 6, 2015, alleging the inappropriate payment of state and federal income tax on certain line-of-duty disability benefits. Plaintiff is represented by Lawrence A. Anderson, an attorney in Great Falls, Montana. The State was served with the Complaint on November 25, 2015, and is represented by Eric Biehl and Hanna Warhank from Church, Harris, Johnson & Williams PC, in Great Falls, Montana and MPERA legal counsel. The State responded and filed an amended answer to the complaint before filing a motion and brief to change venue and/or to dismiss the matter for lack of subject matter jurisdiction. Following a hearing on June 1, 2017, the State's motions were

denied. Discovery requests and responses have been served by both parties. Plaintiff's motion for class certification was filed October 31, 2017.

### C. Plan Membership, Descriptions And Contribution Information

The plans are established and amended statutorily by the Legislature. In all defined benefit plans (except VFCA), if a member leaves covered employment before retirement, the member contributions plus accrued interest (accumulated contributions) may be refunded to the member. If a member returns to service and repays the withdrawn accumulated contributions plus the interest the accumulated contributions would have earned had they remained on deposit, membership service is restored. Membership in each plan as of June 30, 2017 is detailed in the following chart.

| Type of Plan for Reporting Purposes as of Fiscal Year end June 30, 2017 | Single-Employer Defined Benefit | | Multi-Employer Defined Benefit | | | | | | Multi-Employer Defined Contribution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Plan Designation | JRS | HPORS[1] | PERS-DBRP[2] | SRS | GWPORS | MPORS[1] | FURS | VFCA | PERS-DCRP | 457 |
| **Classification of Member** | | | | | | | | | | |
| Active | 56 | 238 | 29,395 | 1,415 | 1,012 | 775 | 678 | 1,957 | 2,541 | 4,898 |
| Inactive: entitled to, but not yet receiving benefits or a refund: | | | | | | | | | | |
| Vested | 2 | 16 | 3,677 | 108 | 114 | 75 | 39 | 824 | 475 | 4,341 |
| Non-Vested | 1 | 17 | 16,659 | 465 | 304 | 143 | 54 | | 653 | |
| Inactive members and beneficiaries currently receiving benefits: | | | | | | | | | | |
| Service Retirements | 62 | 313 | 21,181 | 595 | 262 | 731 | 604 | 1,435 | 58 | |
| Disability Retirements | 1 | 6 | 161 | 29 | 3 | 30 | 6 | 1 | 3 | |
| Survivor Benefits | 5 | 12 | 463 | 24 | 11 | 30 | 20 | 2 | 3 | |
| Total Membership | 127 | 602 | 71,536 | 2,636 | 1,706 | 1,784 | 1,401 | 4,219 | 3,733 | 9,239 |

[1]Includes DROP in the Active count.

[2]The PERS-DBRP Inactive Non-Vested count includes dormant accounts that were previously not counted.

## *Public Employees' Retirement System-DBRP (PERS-DBRP)*

*Plan Description:* The PERS-Defined Benefit Retirement Plan (DBRP) is a multiple-employer, cost-sharing plan established July 1, 1945, and governed by Title 19, chapters 2 & 3, Montana Code Annotated (MCA). This plan covers the State, local governments, certain employees of the Montana University System and school districts.

All new members are initially members of the PERS-DBRP and have a 12-month window during which they may choose to remain in the PERS-DBRP or join the PERS-DCRP by filing an irrevocable election. Members may not be members of both the defined benefit and defined contribution retirement plans. All new members from the universities also have a third option to join the university system's Montana University System Retirement Program (MUS-RP). For members that choose to join the PERS-DCRP or the MUS-RP, a percentage of the employer contribution was used to pay down the liability of the PERS-DBRP until March 2016 when this liability was retired.

The PERS-DBRP provides retirement, disability, and death benefits to plan members and their beneficiaries. Benefits are established by state law and can only be amended by the Legislature. Benefits are based on eligibility, years of service, and highest average compensation. Member rights are vested after five years of service. A brief summary of eligibility and benefits follows.

**PERS-DBRP Summary of Benefits**

**Member's highest average compensation (HAC)**

- Hired prior to July 1, 2011 - highest average compensation during any consecutive 36 months;
- Hired on or after July 1, 2011 - highest average compensation during any consecutive 60 months;
- Hired on or after July 1, 2013 - 110% annual cap on compensation considered as part of a member's highest average compensation.

**Eligibility for benefit**

Service retirement:

| | |
|---|---|
| Hired prior to July 1, 2011: | Age 60, 5 years of membership service;<br>Age 65, regardless of membership service; or<br>Any age, 30 years of membership service. |
| Hired on or after July 1, 2011: | Age 65, 5 years of membership service;<br>Age 70, regardless of membership service. |

Early retirement, actuarially reduced:

| | |
|---|---|
| Hired prior to July 1, 2011: | Age 50, 5 years of membership service; or<br>Any age, 25 years of membership service. |
| Hired on or after July 1, 2011: | Age 55, 5 years of membership service. |

**PERS-DBRP Summary of Benefits (continued)**

Second retirement (requires returning to PERS-covered employment or PERS service):
Retire **before** January 1, 2016 and accumulate **less than 2 years** additional service credit **or** retire **on or after** January 1, 2016 and accumulate **less than 5 years** additional service credit:

- A refund of member's contributions plus regular interest (.25%);
- No service credit for second employment;
- Start the same benefit amount the month following termination; and
- GABA starts again in the January immediately following the second retirement.

Retire **before** January 1, 2016 and accumulate **at least 2 years** of additional service credit:

- A recalculated retirement benefit based on provisions in effect after the initial retirement; and
- GABA starts on the recalculated benefit in the January after receiving the new benefit for 12 months.

Retire **on or after** January 1, 2016 and accumulate **5 or more years** of service credit:

- The same retirement as prior to the return to service;
- A second retirement benefit as prior to the second period of service based on laws in effect upon the rehire date; and
- GABA starts on both benefits in the January after receiving the original and the new benefit for 12 months.

**Vesting** 5 years of membership service

**Monthly benefit formula**
Members hired prior to July 1, 2011:

- Less than 25 years of membership service: 1.785% of HAC per year of service credit;
- 25 years of membership service or more: 2% of HAC per year of service credit.

Members hired on or after July 1, 2011:

- Less than 10 years of membership service: 1.5% of HAC per year of service credit;
- 10 years or more, but less than 30 years of membership service: 1.785% of HAC per year of service credit;
- 30 years or more of membership service: 2% of HAC per year of service credit.

**Guaranteed Annual Benefit Adjustment (GABA)**
After the member has completed 12 full months of retirement, the member's benefit increases by the applicable percentage (provided below) each January, inclusive of all other adjustments to the member's benefit.

- 3.0% for members hired prior to July 1, 2007;
- 1.5% for members hired between July 1, 2007 and June 30, 2013;
- Members hired on or after July 1, 2013:
  - (a) 1.5% for each year if PERS is funded at or above 90%;
  - (b) 1.5% is reduced by 0.1% for each 2% PERS is funded below 90%; and,
  - (c) 0% whenever the amortization period for PERS is 40 years or more.

| PERS-DBRP PARTICIPATING EMPLOYERS | | |
|---|---|---|
| Employers | June 30, 2017 | June 30, 2016 |
| State Agencies | 34 | 34 |
| Counties | 55 | 55 |
| Cities and Towns | 98 | 98 |
| Colleges and Universities | 5 | 5 |
| School Districts | 231 | 229 |
| High Schools | 5 | 5 |
| Other Agencies | 111 | 109 |
| Total | 539 | 535 |

| PERS-DBRP Active Membership by Employer Type | | |
|---|---|---|
| Employer Type | June 30, 2017 | June 30, 2016 |
| State Agencies | 10,933 | 10,668 |
| Counties | 5,482 | 5,426 |
| Cities | 3,437 | 3,360 |
| Universities | 2,742 | 2,661 |
| High Schools | 79 | 63 |
| School Districts | 5,581 | 5,097 |
| Other Agencies | 1,141 | 1,115 |
| Total | 29,395 | 28,390 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

| **Contribution Rates as a % of Covered Payroll** | |
|---|---|
| *Fiscal year ended June 30, 2017* | |
| Member | 7.90% |
| State & University Employer | 8.47% |
| Local Government Employer | 8.37% |
| School District Employer | 8.10% |
| State for Local Governments | 0.10% |
| State for School Districts | 0.37% |

Contributions are deducted from each member's salary and remitted by participating employers. An individual account is established for each member's contributions and interest allocations until a request for retirement or refund is processed.

The 7.9% member contributions will be decreased to 6.9% on January 1 following actuary valuation results that show the amortization period has dropped below 25 years and would remain below 25 years following the reduction of both the additional employer and additional member contribution rates. There will be no reduction to the member contributions on January 1, 2018 due to the amortization period being 30 years at June 30, 2017.

The employee education program is funded by 0.04% of the employer's contributions.

Employer contributions temporarily increased 1.0%, effective July 1, 2013. Further, employer contribution increase an additional 0.1% a year over 10 years beginning July 1, 2014, through 2024. The employer additional contributions, including the 0.27% added in 2007 and 2009, terminate on January 1 following actuary valuation results that show the amortization period has dropped below 25 years and would remain below 25 years following the reduction of both the additional employer and member contribution rates. Based on the June 30, 2017 actuarial valuation, the additional contributions will not be terminated on January 1, 2018. (Reference Schedule of Contribution Rates at the end of the notes).

Effective July 1, 2013, PERS-DBRP received additional contributions from the coal severance tax fund and interest income from the coal severance tax permanent fund. The coal severance taxes collected are credited to the general fund of the State of Montana and are statutorily appropriated on July 1 each year to the trust fund for the PERS-DBRP. The coal tax is transferred quarterly and the interest income is credited monthly. The amount received for fiscal year 2017 was $27.9 million. These contributions are recorded as *Coal Tax Transfers* in the financial statements.

During the 2017 Legislative Session House

Bill (HB) 648 was passed. Effective July 1, 2017, revenue from coal severance taxes and interest income from the coal severance tax permanent fund previously statutorily-appropriated to the PERS defined benefit trust fund will be replaced with the following statutory appropriations:

- Fiscal Year 2018.....$31.386 Million
- Fiscal Year 2019.....$31.958 Million
- Beginning July 1, 2019 through at least June 30, 2025, 101% of the general fund contribution from the previous year will be statutorily-appropriated to the PERS defined benefit trust fund.

Employers are required to make contributions on working retirees' compensation. Member contributions for working retirees are not required.

*Plan Membership Elections:* MPERA has included in the financial statements transfers of $1,419,600 in Transfers to DCRP and $127,663 in Transfers to MUS-RP. These transfers reflect the DCRP and MUS-RP contributions of participants that filed elections at or near the June 30 cutoff date. The contributions were transferred in early fiscal year 2018.

*Additional Service Purchase Due to a Reduction in Force:* Section 19-2-706, MCA allows state and university system employees who are eligible for a service retirement and whose positions have been eliminated due to a reduction in force, to have their employer pay a portion of the total cost of purchasing up to three years of "1-for-5" additional service. The employer has up to ten years to complete payment for the service purchases and is charged the actuarially required rate of return as established by the PERB on the unpaid balance. The employees participating under section 19-2-706, MCA increased from 242 in fiscal year 2016 to 245 in fiscal year 2017. The contributions received (including interest) during fiscal year 2016 totaled $70,335. The outstanding balance at June 30, 2017, totaled $25,634.

*Public Employees' Retirement System-DBRP Education Fund:* Education is provided to all members of the PERS regardless of plan choice as governed by section 19-3-112, MCA. The education must be presented with impartial and balanced information about plan choices, investments and retirement planning.

The education program consists of ongoing transfer education for new members and investment/retirement planning education for all active members.

The education program was funded by 0.04% of PERS-covered payroll in fiscal year 2017.

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for PERS-DBRP.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%; wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65%

which is the assumed long-term expected rate of return on PERS-DBRP investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of the NPL to the changes in discount rate are as follows.

| As of June 30, 2017 | 1% decrease 6.65% | Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| Total Pension Liability | $8,309,070,553 | $7,420,145,583 | $6,673,960,353 |
| Fiduciary Net Position | 5,472,519,182 | 5,472,519,182 | 5,472,519,182 |
| Net Pension Liability | $2,836,551,371 | $1,947,626,401 | $1,201,441,171 |
| Fiduciary Net Position as a % of the TPL | 65.86% | 73.75% | 82.00% |

During the measurement year there were no changes in benefits.

At June 30, 2017, the PERS-DBRP total pension liability (TPL) was $7.4 billion. The Plan's fiduciary net position was $5.5 billion leaving a net pension liability of $1.9 billion. The Plan fiduciary net position as a percentage of the total pension liability was 73.75% at June 30, 2017.

*Actuarial Status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the statutory contribution rates are sufficient to amortize the unfunded actuarial liability within 30 years. The funded ratio is 72.76%

Under the provisions of HB 454 (2013), the additional member and employer contributions, effective July 1, 2013, will remain in effect on January 1, 2018.

## Public Employees' Retirement System-DCRP Disability OPEB (DCRP Disability OPEB)

*Plan Description:* The DCRP Disability OPEB is considered a cost-sharing multiple-employer plan that provides an other post-employment defined benefit for the PERS-DCRP members.

All new PERS members are initially members of the PERS-DBRP and have a 12-month window during which they may choose to remain in the PERS-DBRP or join the PERS-DCRP by filing an irrevocable election. Members may not be members of both the defined benefit and defined contribution retirement plans. The PERS-DCRP provides disability to eligible members who elect the PERS-DCRP.

The DCRP Disability OPEB Trust Fund was established on July 1, 2002, and is governed by section 19-3-2141, MCA. Benefits of this long-term disability plan are established by state law and can only be amended by the Legislature. This benefit is based on eligibility, years of service, and compensation. Member rights are vested after five years of service. A brief summary of eligibility and benefits follows on the top of the next page.

## PERS-DCRP Disability OPEB Summary of Benefits

**Member's highest average compensation (HAC)**
- Hired prior to July 1, 2011 - HAC during the highest 36 consecutive months.
- Hired on or after July 1, 2011 - HAC during the highest 60 consecutive months.

**Eligibility for benefit**
- Any age with 5 years of membership service.

**Vesting** 5 years of membership service

**Monthly benefit formula**

Members hired prior to July 1, 2011:
- Less than 25 years of membership service: 1.785% of HAC per year of service credit;
- 25 years of membership service or more: 2% of HAC per year of service credit.
- Benefit is payable to later of age 65 for disabilities occurring prior to age 60, or five years for disabilties occuring after age 65.

Members hired on or after July 1, 2011:
- Less than 10 years of membership service: 1.5% of HAC per year of service credit;
- 10 years or more, but less than 30 years of membership service: 1.785% of HAC per year of service credit;
- 30 years or more of membership service: 2% of HAC per year of service credit.
- Benefit is payable to age 70 for disabilities occurring prior to age 65, or five years for disabilities occurring after age 65.

Members cannot receive distributions from their individual defined contribution account while receiving payments from the DCRP Disability OPEB Trust Fund. Participants may choose to receive a distribution from their individual account instead of applying for or receiving a disability benefit.

**PERS-DCRP PARTICIPATING EMPLOYERS**

| Employers | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agencies | 32 | 33 |
| Counties | 53 | 50 |
| Cities and Towns | 55 | 53 |
| Universities | 5 | 5 |
| School Districts | 107 | 105 |
| High Schools | 4 | 3 |
| Other Agencies | 44 | 40 |
| Total | 300 | 289 |

PERS-DCRP Active Membership by Employer Type

| Employer Type | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agencies | 1,254 | 1,175 |
| Counties | 383 | 373 |
| Cities | 289 | 285 |
| Universities | 138 | 125 |
| High Schools | 5 | 3 |
| School Districts | 274 | 256 |
| Other Agencies | 198 | 192 |
| Total | 2,541 | 2,409 |

*Contributions:* Under section 19-3-2117, MCA the employers are the only contributors to the DCRP Disability OPEB. The employer contribution rate is 0.30% of a DCRP member's compensation, which is allocated to the long-term disability plan trust fund to provide disability benefits to eligible DCRP members. (Reference Schedule of Contribution Rates at the end of the notes).

As of June 30, 2017, there are three members receiving a benefit from the disability plan, four less than as of June 30, 2016.

*Actuarial Status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the most recent actuarial valuation, the statutory contribution rates are sufficient to amortize the unfunded actuarial liability. The DCRP Disability OPEB assets gained 0.02% on an annualized market value basis during the year ended June 30, 2017. This return was below the assumed rate of return of 3.50%, resulting in an investment loss of about $114,485 for year ended June 30, 2017. The actuarial value of assets is set equal to the market value of assets. As of the June 30, 2017 Actuarial Valuation, the DCRP Disability OPEB unfunded actuarial liability was $0.51 million and the funded ratio was 87.14%. At the June 30, 2016 actuarial valuation, the Plan's unfunded liability was $0.47 million, and the funded ratio was 86.83%.

*GASB Statement No. 74 Reporting* will not be implemented at this time due to the liability being immaterial to the plan as a whole.

## Judges' Retirement System (JRS)

*Plan Description:* The JRS is a single-employer defined benefit plan established in 1967, and governed by Title 19, chapters 2 & 5 of the MCA. This system provides benefits for all Montana judges of the district courts, justices of the Supreme Court, the Chief Water Judge and the Associate Water Judge. Benefits are established by state law and can only be amended by the Legislature. The JRS provides retirement, disability, and death benefits to plan members and their beneficiaries. Benefits are based on eligibility, years of service, and compensation. Member rights are vested after five years of service. A brief summary of eligibility and benefits follows.

**JRS Summary of Benefits**

**Member's current salary[1] or highest average compensation (HAC)[2]**

- Hired prior to July 1, 1997 and non-GABA[1] - monthly compensation at time of retirement.
- Hired on or after July 1, 1997 or electing GABA[2] - HAC during any consecutive 36 months.
- Hired on or after July 1, 2013 - 110% annual cap on compensation considered as part of a members' highest average compensation.

**JRS Summary of Benefits continued**

**Eligibility for benefit**
- Age 60, 5 years of membership service;
- Any age with 5 years of membership service - involuntary termination, actuarially reduced.

**Vesting** 5 years of membership service

**Monthly benefit formula**
3-1/3% of current salary[1] (non-GABA) or HAC[2] (GABA) per year of service credit for the first 15 years of service credit, plus 1.785% per year for each year after 15 years.

**Guaranteed Annual Benefit Adjustment (GABA)**
Hired on or after July 1, 1997, or those electing GABA - after the member has completed 12 full months of retirement, the member's benefit increases by a maximum of 3.0% each January, inclusive of all other adjustments to the member's benefit.

**Minimum benefit adjustment (non-GABA)**
If hired prior to July 1, 1997 and member did not elect GABA - current salary of an active member in same position is used in the calculation of the monthly benefit each time the Legislature increases salaries for active judges.

**JRS PARTICIPATING EMPLOYERS**

| Employer | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agency - Supreme Court | 1 | 1 |
| Total | 1 | 1 |

**JRS Active Membership by Employee Type**

| Employee Type | June 30, 2017 | June 30, 2016 |
|---|---|---|
| GABA | 52 | 49 |
| Non-GABA | 4 | 6 |
| Total | 56 | 55 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

| Contribution Rates as a % of Covered Payroll | |
|---|---|
| *Fiscal year ended June 30, 2017* | |
| Member | 7.00% |
| Employer | 25.81% |

Contributions are deducted from each member's salary and remitted by the participating employer. An individual account is established for each member's contributions and interest allocations until a retirement or refund request is processed. (Reference Schedule of Contribution Rates at the end of the notes).

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for JRS.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%;

wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65% which is the assumed long-term expected rate of return on JRS investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of NPA to changes in the discount rate are as follows.

| As of June 30, 2017 | 1% decrease 6.65% | Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| Total Pension Liability | $ 66,745,485 | $ 60,797,964 | $ 55,667,690 |
| Fiduciary Net Position | 96,653,635 | 96,653,635 | 96,653,635 |
| Net Pension Asset | $(29,908,150) | $(35,855,671) | $(40,985,945) |
| Fiduciary Net Position as a % of the TPL | 144.81% | 158.98% | 173.63% |

During the measurement year there were no changes in benefits.

At June 30, 2017, the JRS total pension liability (TPL) was $60.8 million. The Plan's fiduciary net position was $96.7 million leaving a net pension asset of $35.9 million. The Plan fiduciary net position as a percentage of the total pension liability was 158.98% at June 30, 2017.

*Actuarial status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the JRS amortizes in 0 years, meaning it is fully funded. The funded ratio is 167.06%.

## *Highway Patrol Officers' Retirement System (HPORS)*

*Plan Description:* The HPORS is a single-employer, defined benefit plan established July 1, 1945, and governed by Title 19, chapters 2 & 6 of the MCA. This system provides retirement benefits to all members of the Montana Highway Patrol, including supervisory personnel. Benefits are established by state law and can only be amended by the Legislature. The HPORS provides retirement, disability, and death benefits to plan members and their statutory beneficiaries. Benefits are based on eligibility, years of service, and highest average compensation. Member rights for death and disability are vested immediately. All other rights are vested after five or ten years of service. A brief summary of eligibility and benefits follows.

**HPORS Summary of Benefits**

**Member's highest average compensation (HAC)**
- Highest average compensation during any consecutive 36 months.
- Hired on or after July 1, 2013 - 110% annual cap on compensation considered as part of a member's highest average compensation.

**Eligibility for benefit**
- 20 years of membership service, regardless of age.

**HPORS Summary of Benefits continued:**

**Early Retirement**
- Hired prior to July 1, 2013 - 5 years of membership service, actuarially reduced from age 60.
- Hired on or after July 1, 2013 - 10 years of membership service, actuarially reduced from age 60.

**Vesting** Hired prior to July 1, 2013 - 5 years of membership service
Hired on or after July 1, 2013 - 10 years of membership service

**Monthly benefit formula**
- Retire prior to July 1, 2013 - 2.5% of HAC per year of service credit.
- Retire on or after July 1, 2013 - 2.6% of HAC per year of service credit.

**Guaranteed Annual Benefit Adjustment (GABA)**
- Hired on or after July 1, 1997, or those electing GABA - after the member has completed 12 full months of retirement, the member's benefit increases by a maximum of 3.0% each January, inclusive of all other adjustments to the member's benefit.
- Hired on or after July 1, 2013 - after the member has completed 36 full months of retirement, the member's benefit increases by a maximum of 1.5% each January, inclusive of all other adjustments to the member's benefit.

**Minimum monthly benefit (non-GABA)**
If hired prior to July 1, 1997 and member did not elect GABA - monthly benefits are increased each July when they fall below a statutorily guaranteed minimum. Any annual increase is limited to 5.0% over the current benefit and may not exceed 60% of the current base salary of a probationary officer.

**HPORS PARTICIPATING EMPLOYERS**

| Employer | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agency - Department of Justice | 1 | 1 |
| Total | 1 | 1 |

**HPORS Active Membership by Employee Type**

| Employee Type | June 30, 2017 | June 30, 2016 |
|---|---|---|
| GABA | 238 | 228 |
| Non-GABA | 0 | 0 |
| Total | 238 | 228 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

All HPORS member contributions, regardless of hire date, will increase 1.0% annually, effective July 1, 2013 and ending July 1, 2016.

| **Contribution Rates as a % of Covered Payroll** | |
|---|---|
| *Fiscal year ended June 30, 2017* | |
| Member: | |
| Hired prior to 7/1/1997 and not electing GABA | 13.00% |
| Hired after 6/30/1997 and electing GABA | 13.05% |
| Employer | 28.15% |
| State (General Fund) | 10.18% |

Contributions are deducted from each member's salary and remitted by the participating employer. An individual account

is established for each member's contributions and interest allocations until a retirement or refund request is processed. (Reference Schedule of Contribution Rates at the end of the notes).

*Additional Service Purchase Due to a Reduction in Force:* Section 19-2-706, MCA allows state and university system employees who are eligible for a service retirement and whose positions have been eliminated to have their employer pay a portion of the total cost of purchasing up to three years of "1-for-5" additional service. The employer has up to ten years to complete payment for the service purchases and is charged the actuarially required rate of return as established by the PERB on the unpaid balance. No employees have taken advantage of this provision to date.

*Supplemental Benefit for Retirees:* Section 19-6-709, MCA provides eligible Montana highway patrol officers retired prior to July 1, 1991, or their survivors, an annual supplemental lump-sum payment distributed each September. This lump-sum payment is funded by a statutory appropriation requested by the PERB from the general fund. Factors impacting eligibility include the number of years the recipient has received a service retirement benefit or disability benefit, the recipient's age, and whether the recipient is employed in a position covered by a retirement system under Title 19.

*Deferred Retirement Option Program (DROP):* Beginning October 1, 2015, eligible members of HPORS can participate in the DROP by filing a one-time irrevocable election with the PERB. The DROP is governed by Title 19, chapter 6, part 10. A member must have completed at least twenty years of membership service to be eligible. The member may elect to participate in the DROP for a minimum of one month and a maximum of 60 months and may participate in the DROP only once. A participant remains a member of the HPORS, but will not receive membership service or service credit in the system for the duration of the member's DROP period. During participation in the DROP, all mandatory contributions continue to the retirement system, except the member contribution which goes to the member's DROP account. A monthly benefit is calculated based on salary and years of service to date as of the beginning of the DROP period. The monthly benefit is paid into the member's DROP account until the end of the DROP period. At the end of the DROP period, the participant may receive the balance of the DROP account in a lump-sum payment or in a direct rollover to another eligible plan, as allowed by the IRS. If the participant continues employment after the DROP period ends, they will again accrue membership service and service credit. The DROP account cannot be distributed until the employment is formally terminated. As of June 30, 2017, there were ten DROP participants. The balance of the DROP accounts is $679,980.

HPORS DROP Participation

| | June 30, 2017 |
|---|---|
| Participants Beginning of Year | 6 |
| Participants Added | 4 |
| Completed DROP | 0 |
| Participants End of Year | 10 |
| DROP Distributions | $ 0.00 |

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially

determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for HPORS.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%; wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65%, which is the assumed long-term expected rate of return on HPORS investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of the NPL to the changes in the discount rate are as follows in next column.

| As of June 30, 2017 | 1% decrease 6.65% | Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| Total Pension Liability | $ 249,078,193 | $ 218,922,225 | $ 194,473,533 |
| Fiduciary Net Position | 140,536,689 | 140,536,689 | 140,536,689 |
| Net Pension Liability | $ 108,541,504 | $ 78,385,536 | $ 53,936,844 |
| Fiduciary Net Position as a % of the TPL | 56.42% | 64.19% | 72.27% |

At June 30, 2017, the HPORS total pension liability (TPL) was $218.9 million. The Plan's fiduciary net position was $140.5 million leaving a net pension liability of $78.4 million. The Plan fiduciary net position as a percentage of the total pension liability was 64.19% at June 30, 2017.

During the measurement year there were no changes to benefits.

*Actuarial Status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the HPORS amortizes in 37 years. The funded ratio is 64.35%.

## *Sheriffs' Retirement System (SRS)*

*Plan Description:* The SRS is a multiple-employer, cost-sharing defined benefit plan established July 1, 1974, and governed by Title 19, chapters 2 & 7, MCA. This plan provides retirement benefits to all Department of Justice criminal and gambling investigators hired after July 1, 1993, all detention officers hired after July 1, 2005, and to all Montana sheriffs. Benefits are established by state law and can only be amended by the Legislature. The SRS provides retirement, disability, and death benefits to plan members and their beneficiaries. Benefits are based on eligibility, years of service, and highest average compensation. Member rights are vested after five years of service. A brief summary of eligibility and benefits follows.

**SRS Summary of Benefits**

**Member's highest average compensation (HAC)**

- Hired prior to July 1, 2011 - highest average compensation during any consecutive 36 months;
- Hired on or after July 1, 2011 - highest average compensation during any consecutive 60 months.

**SRS Summary of Benefits continued:**

- Hired on or after July 1, 2013 - 110% annual cap on compensation considered as a part of a member's highest average compensation.

**Eligibility for benefit**
- 20 years of membership service, regardless of age.

**Early Retirement**
- Age 50, 5 years of membership service, actuarially reduced.

**Vesting** 5 years of membership service

**Monthly benefit formula**
- 2.5% of HAC per year of service credit.

**Guaranteed Annual Benefit Adjustment (GABA)**
After the member has completed 12 full months of retirement, the member's benefit increases by the applicable percentage (provided below) each January, inclusive of all other adjustments to the member's benefit.
- 3.0% for members hired prior to July 1, 2007;
- 1.5% for members hired on or after July 1, 2007

**SRS PARTICIPATING EMPLOYERS**

| Employers | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agencies - Department of Justice | 1 | 1 |
| Counties | 56 | 56 |
| Total | 57 | 57 |

**SRS Active Membership by Employer Type**

| Employer Type | June 30, 2017 | June 30, 2016 |
|---|---|---|
| Dept of Justice | 55 | 57 |
| Counties | 1,360 | 1,307 |
| Total | 1,415 | 1,364 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

| Contribution Rates as a % of Covered Payroll | |
|---|---|
| *Fiscal year ended June 30, 2017* | |
| Member | 9.245% |
| Employer | 10.115% |

Contributions are deducted from each member's salary and remitted by participating employers. An individual account is established for each member's contributions and interest allocations until a retirement or refund request is processed. (Reference Schedule of Contribution Rates at the end of the notes).

Employer contributions are required to be paid on working retiree compensation. Member contributions are not required for working retirees.

During the 2017 Legislative Session, House Bill 383 was passed temporarily increasing both the employee and employer contributions. Effective July 1, 2017, the employee contributions increase 1.25%, from 9.245% to 10.495%. Effective July 1, 2017, the employer has an additional contribution increase of 3%, from 0.58% to 3.58%, for a total employer contribution rate of 13.115%.

The employee contributions will return to 9.245% and the employer contributions will return to 9.535% when reducing the employee contribution and terminating the additional employer contributions will not cause the amortization period to exceed 25 years.

*Additional Service Purchase Due to a Reduction in Force:* Section 19-2-706, MCA allows state employees who are eligible for a service retirement and whose positions have been eliminated to have their employer pay a portion of the total cost of purchasing up to three years of "1-for-5" additional service. The employer has up to ten years to complete payment for the service purchases and is charged the actuarial rate of return as established by the PERB on the unpaid balance. Three employees have taken advantage of this provision to date. All purchases are paid in full.

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for SRS.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%; wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65%, which is the assumed long-term expected rate of return on SRS investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of the NPL to the changes in the discount rate is as follows.

| As of June 30, 2017 | 1% decrease 6.65% | Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| Total Pension Liability | $ 465,279,449 | $ 407,007,349 | $ 359,333,600 |
| Fiduciary Net Position | 330,910,169 | 330,910,169 | 330,910,169 |
| Net Pension Liability | $ 134,369,280 | $ 76,097,180 | $ 28,423,431 |
| Fiduciary Net Position as a % of the TPL | 71.12% | 81.30% | 92.09% |

At June 30, 2017, the SRS total pension liability (TPL) was $407.0 million. The Plan's fiduciary net position was $330.9 million leaving a net pension liablity of $76.1 million. The Plan fiduciary net position as a percentage of the total pension liability was 81.30% at June 30, 2017.

During the measurement year there were no changes in benefits.

*Actuarial Status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the statutory contribution rates are sufficient to amortize the unfunded actuarial liability. As of June 30, 2017, the SRS amortizes in 25 years. The funded ratio is 80.74%.

## *Game Wardens' and Peace Officers' Retirement System (GWPORS)*

*Plan Description:* The GWPORS is a multiple-employer, cost-sharing defined benefit plan established in 1963 and governed by Title 19, chapters 2 & 8, MCA. This system provides retirement benefits to all persons employed as a game warden, warden supervisory personnel, or state peace officer. Benefits are established by state law and can only be amended by the Legislature. The GWPORS provides retirement, disability, and death benefits to plan members and their beneficiaries. Benefits are based on eligibility, years of service, and highest average compensation. Member rights are vested after five years of service. A brief summary of eligibility and benefits follows.

**GWPORS Summary of Benefits**

**Member's highest average compensation (HAC)**
- Hired prior to July 1, 2011 - highest average compensation during any consecutive 36 months;
- Hired on or after July 1, 2011 - highest average compensation during any consecutive 60 months.
- Hired on or after July 1, 2013 - 110% annual cap on compensation considered as a part of a member's highest average compensation.

**Eligibility for benefit**
- Age 50, 20 years of membership service.

**Early Retirement (reduced benefit)**
- Age 55, vested members who terminate employment prior to 20 years of membership service.

**Vesting** 5 years of membership service.

**Monthly benefit formula**
- 2.5% of HAC per year of service credit.

**Guaranteed Annual Benefit Adjustment (GABA)**
After the member has completed 12 full months of retirement, the member's benefit increases by the applicable percentage (provided below) each January, inclusive of all other adjustments to the member's benefit.
- 3.0% for members hired prior to July 1, 2007;
- 1.5% for members hired on or after July 1, 2007

| GWPORS PARTICIPATING EMPLOYERS | | |
|---|---|---|
| Employers | June 30, 2017 | June 30, 2016 |
| State Agencies | 4 | 4 |
| Colleges and Universities | 3 | 3 |
| Total | 7 | 7 |

| GWPORS Active Membership by Employer Type | | |
|---|---|---|
| Employer | June 30, 2017 | June 30, 2016 |
| Dept of Corrections | 739 | 723 |
| Dept FW&P | 105 | 109 |
| Dept of Livestock | 42 | 34 |
| Dept of Transportation | 81 | 81 |
| Universities | 45 | 42 |
| Total | 1,012 | 989 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

| Contribution Rates as a % of Covered Payroll | |
|---|---|
| *Fiscal year ended June 30, 2017* | |
| Member | 10.56% |
| Employer | 9.00% |

Contributions are deducted from each member's salary and remitted by participating employers. An individual account is established for each member's contributions and interest allocations until a retirement or refund request is processed. (Reference Schedule of Contribution Rates at the end of the notes).

*Additional Service Purchase Due to a Reduction in Force:* Section 19-2-706, MCA allows state and university system employees who are eligible for a service retirement and whose positions have been eliminated to have their employer pay a portion of the total cost of purchasing up to three years of "1-for-5" additional service. The employer has up to ten years to complete payment for the service purchases and is charged the actuarially required rate of return as established by the PERB on the unpaid balance. No employees have taken advantage of this provision to date.

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for GWPORS.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%; wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65%, which is the assumed long-term expected rate of return on GWPORS investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of the NPL to the change in the discount rate is as follows.

| | 1% decrease | Discount Rate | 1% Increase |
|---|---|---|---|
| As of June 30, 2017 | 6.65% | 7.65% | 8.65% |
| Total Pension Liability | $ 245,895,770 | $ 213,201,194 | $ 186,576,542 |
| Fiduciary Net Position | 175,840,876 | 175,840,876 | 175,840,876 |
| Net Pension Liability | $ 70,054,894 | $ 37,360,318 | $ 10,735,666 |
| Fiduciary Net Position as a % of the TPL | 71.51% | 82.48% | 94.25% |

At June 30, 2017, the GWPORS total pension liability was $213.2 million. The Plan's fiduciary net position was $175.8 million leaving a net pension liability of $37.4 million. The Plan fiduciary net position as a percentage of the total pension liability was 82.48% at June 30, 2017.

During the measurement year there were no changes in benefits.

*Actuarial Status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the statutory contribution rates are not sufficient to amortize the unfunded actuarial liability. The GWPORS amortizes in 70 years. The funded ratio is 81.01%

## *Municipal Police Officers' Retirement System (MPORS)*

*Plan Description:* The MPORS is a multiple-employer, cost-sharing defined benefit plan established in 1974 and is governed by Title 19, chapters 2 & 9 of the MCA. This plan covers all municipal police officers employed by first- and second-class cities and other cities that adopt the plan. Benefits are established by state law and can only be amended by the Legislature. The MPORS provides retirement, disability, and death benefits to plan members and their statutory beneficiaries. Benefits are based on eligibility, years of service, and compensation. Member rights for death and disability are vested immediately. All other rights are vested after five years of service. A brief summary of eligibility and benefits follows.

**MPORS Summary of Benefits**

**Member's final average compensation (FAC)**
- Hired prior to July 1, 1977 - average monthly compensation of final year of service;
- Hired on or after July 1, 1977 - final average compensation (FAC) for last consecutive 36 months.
- Hired on or after July 1, 2013 - 110% annual cap on compensation considered as a part of a member's final average compensation.

**Eligibility for benefit**
- 20 years of membership service, regardless of age.

**Second Retirement**
- Age 50, re-employed in a MPORS position

**Early Retirement**
- Age 50, 5 years of membership service.

**Vesting** 5 years of membership service

**Monthly benefit formula**
- 2.5% of FAC per year of service credit.

**MPORS Summary of Benefits continued:**

**Second retirement benefit formula**
Re-calculated using specific criteria:

- Less than 20 years of membership service, upon re-employment, repays benefits and subsequent retirement is based on total MPORS service.
- More than 20 years of membership service, upon re-employment, receives initial benefit and a new retirement benefit based on additional service credit and FAC after re-employment.

**Guaranteed Annual Benefit Adjustment (GABA)**
Hired on or after July 1, 1997, or those electing GABA - after the member has completed 12 full months of retirement, the member's benefit increases by a maximum of 3.0% each January, inclusive of all other adjustments to the member's benefit.

**Minimum benefit adjustment (non-GABA)**
If hired before July 1, 1997 and member did not elect GABA - the monthly retirement, disability or survivor's benefit may not be less than ½ the compensation of a newly confirmed officer in the city where the member was last employed.

**MPORS Active Membership by Employee Type**

| Employee Type | June 30, 2017 | June 30, 2016 |
|---|---|---|
| GABA | 770 | 756 |
| Non-GABA | 5 | 6 |
| Total | 775 | 762 |

**MPORS PARTICIPATING EMPLOYERS**

| Employers | June 30, 2017 | June 30, 2016 |
|---|---|---|
| Cities | 33 | 32 |
| Total | 33 | 32 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

Member contribution rates are dependent upon date of hire as a police officer. Contributions are deducted from each member's salary and remitted by participating employers. An individual account is established for each member's contributions and interest allocations until a retirement or refund request is processed.

The State contributions are requested at the beginning of the fiscal year based on the previous fiscal year compensation and are due no later than November 1. (Reference Schedule of Contribution Rates at the end of the notes).

**Contribution Rates as a Percent of Salary**

| *Fiscal year ended June 30, 2017* | |
|---|---|
| Member: | |
| Hired after 6/30/1975 and prior to 7/1/1979 and not electing GABA | 7.00% |
| Hired after 6/30/1979 and prior to 7/1/1997 and not electing GABA | 8.50% |
| Hired after 6/30/1997 and members electing GABA | 9.00% |
| Employer | 14.41% |
| State (General Fund) | 29.37% |

*Deferred Retirement Option Plan (DROP):* Beginning July 2002, eligible members of MPORS can participate in

the DROP by filing a one-time irrevocable election with the PERB. The DROP is governed by Title 19, chapter 9, part 12, MCA. A member must have completed at least twenty years of membership service to be eligible. They may elect to participate in the DROP for a minimum of one month and a maximum of 60 months and may participate in the DROP only once. A participant remains a member of the MPORS, but will not receive membership service or service credit in the system for the duration of the member's DROP period. During participation in the DROP, all mandatory contributions continue to the retirement system. A monthly benefit is calculated based on salary and years of service to date as of the beginning of the DROP period. The monthly benefit is paid into the member's DROP account until the end of the DROP period. At the end of the DROP period, the participant may receive the balance of the DROP account in a lump-sum payment or in a direct rollover to another eligible plan, as allowed by the IRS. If the participant continues employment after the DROP period ends, they will again accrue membership service and service credit. The DROP account cannot be distributed until employment is formally terminated. As of June 30, 2017, there were 61 DROP participants. Since program inception, a total of 149 members have participated in the DROP. The balance of the DROP accounts is $9.0 million.

MPORS DROP Participation

| | June 30, 2017 | June 30, 2016 |
|---|---|---|
| Participants Beginning of Year | 61 | 51 |
| Participants Added | 6 | 15 |
| Completed DROP | 6 | 5 |
| Participants End of Year | 61 | 61 |
| DROP Distributions | $ 928,523 | $ 796,713 |

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for MPORS.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%; wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65%, which is the assumed long-term expected rate of return on MPORS investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of the NPL to the change in the discount rate is as follows.

| As of June 30, 2017 | 1% decrease 6.65% | Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| Total Pension Liability | $643,111,089 | $561,975,691 | $496,922,192 |
| Fiduciary Net Position | 384,062,216 | 384,062,216 | 384,062,216 |
| Net Pension Liability | $259,048,873 | $177,913,475 | $112,859,976 |
| Fiduciary Net Position as a % of the TPL | 59.72% | 68.34% | 77.29% |

At June 30, 2017, the MPORS total pension liability was $562.0 million. The Plan's fiduciary net position was $384.1 million leaving a net pension liability of $177.9 million. The Plan fiduciary net position as a percentage of the total pension liability was 68.34% at June 30, 2017.

During the measurement year there were no changes in benefit.

*Actuarial Status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the MPORS amortizes in 16 years. The funded ratio is 68.66%.

## *Firefighters' Unified Retirement System (FURS)*

*Plan Description:* The FURS is a multiple-employer, cost-sharing defined benefit plan established in 1981, and governed by Title 19, chapters 2 & 13, MCA. This system provides retirement benefits to firefighters employed by first- and second-class cities; other cities and rural fire district departments that adopt the plan; and to firefighters hired by the Montana Air National Guard (MANG) on or after October 1, 2001. Benefits are established by state law and can only be amended by the Legislature. The FURS provides retirement, disability, and death benefits to plan members and their beneficiaries. Benefits are based on eligibility, years of service, and compensation. Member rights for death and disability are vested immediately. All other member rights are vested after five years of service. A brief summary of eligibility and benefits follows.

**FURS Summary of Benefits**

**Member's compensation**
Hired prior to July 1, 1981 and not electing GABA - highest monthly compensation (HMC);
Hired on or after July 1, 1981 and those electing GABA - highest average compensation (HAC) during any consecutive 36 months.
Hired on or after July 1, 2013 - 110% annual cap on compensation considered as a part of a member's highest average compensation.

**Eligibility for benefit**
- 20 years of membership service, regardless of age.

**Early Retirement**
- Age 50, 5 years of membership service.

**Vesting** 5 years of membership service

**Monthly benefit formula**
1) Members hired prior to July 1, 1981 and not electing GABA are entitled to the greater of:
2.5% of HMC per year of service; OR
i) if less than 20 years of service -
2% of HMC for each year of service;
ii) if more than 20 years of service -
50% of the member's HMC plus 2% of the member's HMC for each year of service over 20 years

**FURS Summary of Benefits continued:**

2) Members hired on or after July 1, 1981 and those electing GABA receive 2.5% of HAC per year of service.

**Guaranteed Annual Benefit Adjustment (GABA)**
Hired on or after July 1, 1997, or those electing GABA - after the member has completed 12 full months of retirement, the member's benefit increases by a maximum of 3.0% each January, inclusive of all other adjustments to the member's benefit.

**Minimum benefit adjustment (non-GABA)**
If hired before July 1, 1997 and member did not elect GABA, the monthly retirement, disability or survivor's benefit may not be less than ½ the compensation of a newly confirmed firefighter employed by the city that last employed the member (provided the member has at least ten years of membership service).

**FURS PARTICIPATING EMPLOYERS**

| Employers | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agencies - Department of Military Affairs | 1 | 1 |
| Cities | 15 | 15 |
| Rural Fire Districts | 11 | 10 |
| Total | 27 | 26 |

**FURS Active Membership by Employee Type**

| Employee Type | June 30, 2017 | June 30, 2016 |
|---|---|---|
| GABA | 675 | 640 |
| Non-GABA | 3 | 4 |
| Total | 678 | 644 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

Contributions are deducted from each member's salary and remitted by participating employers. An individual account is established for each member's contributions and interest allocations until a retirement or refund request is processed.

State contributions are requested at the beginning of each fiscal year based on previous fiscal year salary and are due no later than November 1. (Reference Schedule of Contribution Rates at the end of the notes).

| **Contribution Rates as a % of Covered Payroll** | |
|---|---|
| *Fiscal year ended June 30, 2017* | |
| Member: | |
| Hired prior to 7/1/97 and not electing GABA | 9.50% |
| Hired after 6/30/1997 and electing GABA | 10.70% |
| Employer | 14.36% |
| State (General Fund) | 32.61% |

Effective July 1, 2013, employer and state contributions are required to be paid on working retiree compensation. Member contributions are not required for working retirees.

*Additional Service Purchase Due to a Reduction in Force:* Section 19-2-706, MCA allows state and university system employees who are eligible for a service retirement and whose positions have been eliminated to have their employer pay a portion of the total cost of purchasing up to

three years of "1-for-5" additional service. The employer has up to ten years to complete payment for the service purchases and is charged the actuarially required rate of return as established by the PERB on the unpaid balance. No employees have taken advantage of this provision to date.

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for FURS.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%; wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65%, which is the assumed long-term expected rate of return on FURS investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of the NPL to the changes in the discount rate are as follows.

| As of June 30, 2017 | 1% decrease 6.65% | Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| Total Pension Liability | $583,341,055 | $508,540,629 | $448,105,809 |
| Fiduciary Net Position | 395,506,080 | 395,506,080 | 395,506,080 |
| Net Pension Liability | $187,834,975 | $113,034,549 | $ 52,599,729 |
| Fiduciary Net Position as a % of the TPL | 67.80% | 77.77% | 88.26% |

At June 30, 2017, the FURS total pension liability was $508.5 million. The Plan's fiduciary net position was $395.5 million leaving a net pension liability of $113.0 million. The Plan fiduciary net position as a percentage of the total pension liability was 77.77% at June 30, 2017.

During the measurement year there were no changes in benefits.

*Actuarial Status:* The statutory funding rate is tested in the valuation to determine if it is sufficient to cover the Normal Cost Rate plus an amortization payment of the Unfunded Actuarial Liability, if any, over no more than 30 years. As of June 30, 2017, the FURS amortizes in 10 years. The funded ratio is 76.13%

## *Volunteer Firefighters' Compensation Act (VFCA)*

*Plan Description:* The VFCA is a multiple-employer, cost-sharing defined benefit plan. This compensation plan was established in 1965 and is governed by Title 19, chapter 17, MCA. All members are unpaid volunteers and the State of Montana is the only contributor to the plan. Benefits are established by state law and can only be amended by the Legislature. The VFCA provides pension, disability, and survivorship benefits for all eligible volunteer firefighters who are members of qualified volunteer fire companies in unincorporated areas, towns or villages and includes volunteer fire departments, fire districts, and fire service areas under the laws of the State of Montana. Benefits are based on eligibility and years of service. Member rights are vested after ten years of credited service. VFCA also provides limited benefits for death or injuries incurred in the line of duty.

A member who chooses to retire and draw a pension benefit may return to service with a volunteer fire department without loss of benefits. However, a returning retired member may not be considered an active member accruing credit for service.

VFCA is a qualified Length of Service Award Plan (LOSAP) under 457(e)(11)(B) of the Internal Revenue Service tax code. This is only for tax reporting purposes. This does not change any requirements of the program.

A brief summary of eligibility and benefits follows.

**VFCA Summary of Benefits**

**Eligibility for benefit**
Age 55, 20 years of credited service;
Age 60, 10 years of credited service.

**Vesting** 10 years of credited service

**Monthly benefit formula** (Effective January 1, 2016)
$8.75 per year of credited service up to 20 years;
$7.50 per year of credited service after 20 years

As of January 1, 2016, retirees may receive a benefit per month equal to $8.75 for each year of credited service, for up to 20 years of credited service. All retirees who continued to be an active member beyond 20 years, the benefit must be increased by $7.50 a month for each year of credited service up to 30 years (maximum benefit $250).

**Additional benefit**
Effective July 1, 2011, members who retire on or after July 1, 2011 and have greater than 30 years of credited service will receive $7.50 per month for each additional year of credited service over 30 years if the pension trust fund is actuarially sound, amortizing any unfunded liabilities in 20 years or less. This determination will be made annually and a member's benefit will be capped at $250 a month (30 years of credited service) if the amortization period grows to greater than 20 years.

*Contributions:* The State is the only contributor to the VFCA. Contributions are 5% of fire insurance premium taxes collected on certain fire risks. The State Auditor makes annual payments from the general fund to the Volunteer Firefighters' Compensation Act fund. (Reference Schedule of Contribution Rates at the end of the notes).

*Group Insurance Payments:* Supplemental payments are available to qualified volunteer fire companies that provide additional group medical insurance for their members in case of death or injury incurred while in the line of duty. The payment is made to the volunteer fire companies and is equal to $75 per year for each mobile firefighting unit owned by the volunteer fire company, up to a maximum of two units.

*GASB Statement No. 67 Reporting:* The membership data, method and assumptions used in calculations of the actuarially determined contributions, and plan provisions are the same as were described in the June 30, 2016 Actuarial Valuation Report for VFCA.

As a result of the experience study performed during fiscal year 2017, the following actuarial assumptions were used to measure the Total Pension Liability (TPL): discount rate was lowered from 7.75% to 7.65%; inflation rate was reduced from 3.00% to 2.75%; wage inflation rate was reduced from 4.00% to 3.50%; the non-disabled mortality and withdrawal assumptions were updated; and the salary merit scale was updated.

The discount rate as of June 30, 2017 is 7.65%, which is the assumed long-term expected rate of return on VFCA investments. Projections of the fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current members.

Changes in the discount rate affect the measurement of the TPL. At June 30, 2017, the sensitivity of the NPL to the changes of the discount rate are as follows.

| At June 30, 2017 | 1% decrease 6.65% | Discount Rate 7.65% | 1% Increase 8.65% |
|---|---|---|---|
| Total Pension Liability | $51,305,478 | $46,717,576 | $42,832,255 |
| Fiduciary Net Position | 36,630,432 | 36,630,432 | 36,630,432 |
| Net Pension Liability | $14,675,046 | $10,087,144 | $6,201,823 |
| Fiduciary Net Position as a % of the TPL | 71.40% | 78.41% | 85.52% |

At June 30, 2017, the VFCA total pension liability (TPL) was $46.7 million. The Plan's fiduciary net position was $36.6 million leaving a net pension liability of $10.1 million. The Plan fiduciary net position as a percentage of the total pension liability was 78.41% at June 30, 2017.

During the measurement year there were no changes in benefits.

*Actuarial Status:* The actuarial contribution decreased to $1,029,969 at the June 30, 2017 valuation from $1,109,996 at the June 30, 2016 valuation. The actuarial contribution is determined as the normal cost, administrative expense, and a 20-year open amortization of the unfunded actuarial liability. As of June 30, 2017, the VFCA amortizes in 6 years. The funded ratio is 80.56%

## *Public Employees' Retirement System-DCRP (PERS-DCRP)*

*Plan Description:* The PERS-Defined Contribution Retirement Plan (DCRP) is a multiple-employer plan established July 1, 2002 and governed by Title 19, chapters 2 & 3, MCA. This plan is available to eligible employees of the State, Montana University System, local governments, and school districts. All new PERS members are initially members of the PERS-DBRP and have a 12-month window during which they may choose to transfer to the PERS-DCRP or remain in the PERS-DBRP by filing an irrevocable election. If an election is not filed, the member remains in the PERS-DBRP. Members may not be members of both the defined contribution and defined benefit retirement plans. The PERS-DCRP provides retirement, disability, and death benefits to plan members and their beneficiaries.

A brief summary of eligibility and benefits follows on top of the next page.

## PERS-DCRP Summary of Benefits

**Eligibility for benefit**
Termination of Service

**Vesting**
Immediate for participant's contributions and attributable income;
5 years of membership service for the employer's contributions to individual accounts and attributable income.

**Benefit**
Depends upon eligibility and individual account balance;
Various payout options are available, including: taxable lump sums, periodic payments per participant direction and IRS-permitted rollovers.

**PERS-DCRP PARTICIPATING EMPLOYERS**

| Employers | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agencies | 32 | 33 |
| Counties | 53 | 50 |
| Cities and Towns | 55 | 53 |
| Universities | 5 | 5 |
| School Districts | 107 | 105 |
| High Schools | 4 | 3 |
| Other Agencies | 44 | 40 |
| Total | 300 | 289 |

PERS-DCRP Active Membership by Employer Type

| Employer Type | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State Agencies | 1,254 | 1,175 |
| Counties | 383 | 373 |
| Cities | 289 | 285 |
| Universities | 138 | 125 |
| High Schools | 5 | 3 |
| School Districts | 274 | 256 |
| Other Agencies | 198 | 192 |
| Total | 2,541 | 2,409 |

*Contributions:* Member and employer contribution rates are established by state law and may be amended only by the Legislature.

**Contribution Rates as a % of Covered Payroll**
*Fiscal year ended June 30, 2017*

| | |
|---|---|
| Member | 7.90% |
| State & University Employer | 8.47% |
| Local Government Employer | 8.37% |
| School District Employer | 8.10% |
| State for Local Governments | 0.10% |
| State for School Districts | 0.37% |

Contributions are deducted from each member's salary and remitted by participating employers. The entire amount of the member's contribution is credited to the individual account and maintained by the record keeper.

The 7.9% member contributions will be decreased to 6.9% on January 1 following actuary valuation results for the PERS-DBRP that show the amortization period has dropped below 25 years and would remain below 25 years following the reduction of both the additional employer and additional member contribution rates. There is no reduction to the member contributions on January 1, 2018. (Reference Schedule of Contribution Rates at the end of the notes).

The total employer rate of 8.47% is allocated as follows: 8.13% to the member's retirement

account, 0.04% to the defined contribution education fund, 0.3% to the long term disability plan.

PERS employer contributions temporarily increased 1.0%, effective July 1, 2013. Beginning July 1, 2014, employer contributions increased an additional 0.1% a year over 10 years, through 2024. The employer additional contributions, including the 0.27% added in 2007 and 2009, terminate on January 1 following actuary valuation results that show the amortization period of the PERS-DBRP has dropped below 25 years and would remain below 25 years following the reduction of both the additional employer and member contribution rates. Based on the June 30, 2017 actuarial valuation, the additional contributions will not be terminated on January 1, 2018.

*Plan Membership Elections:* The financial statements will reflect employer and employee contribution transfers of DCRP participants that filed elections at or near the June 30 cutoff date. The contributions will not be moved until early fiscal year 2018. At fiscal year end June 30, 2017, there were no transfers.

*DCRP Education Fund:* Implemented July 1, 2002, the DCRP Education Fund (DCEd), as governed by section 19-3-112, MCA, was established to provide funding for the required education programs for members who have joined the PERS-DCRP. The DCEd was funded by 0.04% of the employers' contributions in fiscal year 2017.

*DCRP Disability Fund:* Implemented July 1, 2002, the DCRP Disability Fund (DC Disability), as governed by section 19-3-2117, MCA, provides disability benefits to eligible members who elect the PERS-DCRP. The DCRP Disability Fund received 0.3% of the employers' contribution in fiscal year 2017. The DC Disability OPEB is reported on the financial statements under the column heading *PERS-DCRP Disability OPEB.*

Participants of the PERS-DCRP direct their contributions and their portion of employer's contribution among the offered investment options. Participants may invest in any or all of the offered options and transfer between options on a daily basis, if desired. The investment options offered are selected by the PERB in compliance with their Investment Policy Statement, the advice of an independent investment consultant, and assistance from the statutorily-created Employee Investment Advisory Council.

The offered investment options fall into two primary types: (1) the variable investment options and (2) the fixed investment option.

*Variable investments:* The variable investment options include a variety of Large, Mid and Small Cap mutual funds, as well as a fixed income bond fund and Target Date Retirement Funds. Options range from conservative to aggressive. The mutual funds cover all standard asset classes and categories. The investment options as of June 30, 2017 are as follows.

PERS-DCRP Investment Options

***International Stock Funds***
American Funds New Perspective R6
Oakmark International I
Vanguard Total International Stock Index Adm
Oppenheimer Developing Markets Y

***Small Company Stock Funds***
Vanguard Small Cap Growth Index Instl
Vanguard Small Cap Index Signal Instl

Prudential Small Cap Value Z

***Mid-Sized Company Stock Funds***
Janus Henderson Enterprise - N
MFS Mid-Cap Value

***Large Company Stock Funds***
Alger Capital Appreciation Z
BlackRock Equity Index - Collective F
Vanguard Equity Income - Adm
JP Morgan US Equity R5

***Balanced Funds***
Vanguard Balanced Index - I

***Bond Funds***
Prudential Total Bond Q
Neuberger Berman High Income Bond - 1

***Target Date Funds***
T. Rowe Price Retirement 2005 through 2055

***Fixed Investment Options***
Montana Fixed Fund

*Fixed Investment: Montana Fixed Fund.* The Montana Fixed Fund is a stable value investment option, administered through outside vendors: investment manager, Pacific Investment Management Company LLC (PIMCO); custodial bank, State Street Bank and Trust Company (State Street); and third-party synthetic Guaranteed Interest Contract (GIC) providers, Transamerica Life Insurance Company (Transamerica), Prudential Insurance Company of America (Prudential), and Voya Retirement Insurance & Annuity Company (Voya). When participants invest in the Montana Fixed Fund option, they are guaranteed a fixed rate of return, which may be adjusted in accordance with the terms of the respective GIC provider. The Montana Fixed Fund employs a synthetic stable value strategy where the investment manager, PIMCO, manages a diversified bond portfolio and third party insurers, Transamerica, Prudential, and Voya, guarantee the participants' principal investments and earnings in accordance with the respective contracts with the GIC providers. The third party insurers set a fixed quarterly rate of return based on the investment manager's portfolio market value performance, yield, and duration in accordance with the terms of the respective contracts with the GIC providers.

All money invested in the Montana Fixed Fund of the PERS-DCRP and Deferred Compensation Plan are held in a Pooled Trust. The Pooled Trust qualifies as a group trust under sections 401(a), including section 401(a)(24) and 501(a), of the IRC of 1986, as amended. Under the Pooled Trust agreement, the third party GIC providers provide a guarantee of principal and set a fixed quarterly crediting rate. The Pooled Trust assets are invested by PIMCO and are held under a custodial agreement with State Street. The Pooled Trust assets are invested by PIMCO based on an investment guideline schedule as agreed upon in the Pooled Trust Contract and approved by the PERB, PIMCO, and the GIC providers.

Administrative expenses and revenues are accounted for within the plan. Expenses for the DCRP can generally be classified as 1) administrative, including miscellaneous or 2) investment management. Following is a summary of revenues and expenses.

*Administrative funding:* The PERB's administrative fee is a basis point (or percent) fee charged on participants' account balances. On a quarterly basis, the record keeper, Empower™ Retirement, withholds the fee from each plan participant's account. Empower™ Retirement withholds a portion

of the fee collected from the participant to pay their recordkeeping fee and submits the remainder to the PERB. The PERB records this as *Miscellaneous Revenue* in the financial statements.

*Record keeping fees:* The record keeper, Empower™ Retirement, charges a set administrative fee to the PERB for all plan participants. These amounts are recorded as *Miscellaneous Expense* in the financial statements.

*Montana Fixed Fund fees:* The Montana Fixed Fund's crediting rate is declared net of expenses. Fees on the fund are charged by each of the five providers, PIMCO, State Street, Transamerica, Prudential, and Voya. The fees are defined under each contract for specific services. The fees charged by PIMCO and State Street for the externally managed fixed investments are classified as *Investment Expense*. The fees charged by Transamerica, Prudential and Voya are classified as *Miscellaneous Expense.*

*Mutual funds/variable investments fees:* The variable investments have investment management fees and some may have additional administrative fees. These fees are not presented in the financial statements. Mutual fund earnings are declared net of expenses, both investment management and administrative expenses, in accordance with the Securities and Exchange Commission and other regulatory authorities. Current reporting standards for mutual fund companies do not require costs be made available in the detailed cost reports.

## *Deferred Compensation Plan (457)*

*Plan Description:* The Deferred Compensation (457) Plan is a voluntary supplemental retirement savings plan established in 1974. The Deferred Compensation Plan is governed by Title 19, chapter 50, MCA, in accordance with Internal Revenue Code (IRC) §457. This plan is available to all employees of the State, Montana University System, and contracting political subdivisions.

Assets of the Deferred Compensation Plan are required to be held in trusts, custodial accounts or insurance company contracts for the exclusive benefit of participants and their beneficiaries. Empower™ Retirement is the record keeper for the plan. Participants elect to defer a portion of their salary, within IRC limits. The deferred salary is not available to employees until separation from service, retirement, death, or upon an unforeseeable emergency while still employed, provided IRS-specified criteria are met.

A brief summary of eligibility and benefits follows.

**Deferred Compensation Plan Summary**

**Contribution**
Voluntary, pre-tax deferral or designated Roth contribution

**Eligibility for benefit**
Not available to participant until separation from service, retirement, death, or upon an unforeseeable emergency, while still employed, provided IRS-specified criteria are met.

**Deferred Compensation Plan Summary (continued)**

**Vesting**
Participants are fully vested in their accounts immediately.

**Benefit**
Lump sum or periodic benefit payment, at the option of the participant. Based on individual account balances and plan provisions. IRS permitted rollovers are also possible.

**DEFERRED COMPENSATION PARTICIPATING EMPLOYERS**

| Employers | June 30, 2017 | June 30, 2016 |
|---|---|---|
| State of Montana* | 1 | 1 |
| Counties | 4 | 4 |
| Colleges and Universities | 5 | 5 |
| School Districts | 13 | 11 |
| Cities | 10 | 10 |
| Other Agencies | 13 | 13 |
| Total | 46 | 44 |

*The State of Montana includes 34 agencies; however, due to the nature of the reporting for the 457 plan we are unable to specifically determine which agencies have participating employees.

*Contributions:* The Deferred Compensation Plan is a voluntary retirement plan designed to supplement retirement savings. Participants designate the amount to contribute within IRC limitations.

Plan participants direct their deferred salary among the offered investment options. The investment options offered are selected by the PERB in compliance with their Investment Policy Statement, the advice of an independent investment analyst, and the statutorily-created Employee Investment Advisory Council. Participants may invest in any or all of the offered options and transfer between options on a daily basis, if desired.

The offered investment options fall into two primary types: (1) the variable investment options and (2) the fixed investment option.

*Variable investments:* The variable investment options include a variety of Large, Mid and Small Cap mutual funds, as well as a fixed income bond fund and Target Date Retirement funds. Options range from aggressive to conservative. The mutual funds cover all standard asset classes and categories. The investment options as of June 30, 2017 are as follows.

Deferred Compensation (457) Plan Investment Options

***International Stock Funds***
Artisan International Inv
Franklin Mutual Global Discovery Z
Dodge & Cox International Stock
American Funds New Perspective R6
Oppenheimer Developing Markets Y

***Small Company Stock Funds***
Vanguard Small Cap Growth Index Instl
Vanguard Small Cap Index Instl
Neuberger Berman Genesis-Trust

***Mid Cap Company Stock Funds***
Janus Henderson Enterprise - N

Vanguard Mid Cap Index Adm
MFS Mid Cap Value R6

***Large Cap Stock Funds***
Vanguard Equity Income Adm
Fidelity Contrafund
Vanguard Institutional Index I
Parnassus Core Equity Inst

***Balanced Funds***
Vanguard Balanced Index I

***Bond Funds***
Neuberger Berman High Income Bond Inv
Prudential Total Return Bond Q

***Target Date Funds***
T. Rowe Price Retirement 2005 through 2055

***Fixed Investment Options***
Montana Fixed Fund

In addition to the investments listed, plan participants previously had the option to direct a portion of their deferrals to a term life insurance policy provided through Allianz Life Insurance. The ability to invest in life insurance is allowed under the IRC and was offered to plan participants prior to life insurance being offered as a standard component of health insurance benefit packages. This investment option has been discontinued; however, plan participants who had previously elected this option may continue.

*Fixed Investment: Montana Fixed Fund.* The Montana Fixed Fund is a stable value investment option, administered through outside vendors: investment manager, Pacific Investment Management Company LLC (PIMCO); custodial bank, State Street Bank and Trust Company (State Street); and third-party synthetic Guaranteed Interest Contract (GIC) providers, Transamerica Life Insurance Company (Transamerica), Prudential Insurance Company of America (Prudential), and Voya Retirement Insurance & Annuity Company (Voya). When participants invest in the Montana Fixed Fund option, they are guaranteed a fixed rate of return, which may be adjusted in accordance with the terms of the respective GIC provider. The Montana Fixed Fund employs a synthetic stable value strategy where the investment manager, PIMCO, manages a diversified bond portfolio and third party insurers, Transamerica, Prudential, and Voya, guarantee the participants' principal investments and earnings in accordance with the respective contract with the GIC provider. The third party insurers set a fixed quarterly rate of return based on the investment manager's portfolio market value performance, yield, and duration in accordance with the terms of the respective contract with the GIC provider.

All money invested in the Montana Fixed Fund of the PERS-DCRP and Deferred Compensation Plan are held in a Pooled Trust. The Pooled Trust qualifies as a group trust under sections 401(a), including section 401(a)(24) and 501(a), of the IRC of 1986, as amended. Under the Pooled Trust agreement, the third party GIC providers provide a guarantee of principal and set a fixed quarterly crediting rate. The Pooled Trust assets are invested by PIMCO and are held under a custodial agreement with State Street. The Pooled Trust assets are invested by PIMCO based on an investment guideline schedule as agreed upon in the Pooled Trust Contract and approved by the PERB, PIMCO, and the GIC providers.

Administrative expenses and revenues are accounted for within the plan. Expenses for the Deferred Compensation Plan can generally be classified as 1) administrative, including miscellaneous or 2) investment management.

Following is a summary of all revenues and expenses.

*Administrative funding:* The PERB's administrative fee is a basis point (or percent) fee based on account balances. On a quarterly basis, the record keeper, Empower™ Retirement, withholds the fee from each plan participant's account. Empower™ Retirement withholds a portion of the fee collected from the participants to pay their recordkeeping fee and submits the remainder to the PERB. The PERB records this as *Miscellaneous Revenue* in the financial statements.

*Record keeping fees:* The record keeper, Empower™ Retirement, charges a set administrative fee to the PERB for all plan participants. These amounts are recorded as *Miscellaneous Expense* in the financial statements.

*Montana Fixed Fund fees:* The Montana Fixed Fund's crediting rate is declared net of expenses. Fees on the fund are charged by each of the five providers, PIMCO, State Street, Transamerica, Prudential, and Voya. The fees are defined under each contract for specific services. The fees charged by PIMCO and State Street for the externally managed fixed investments are classified as *Investment Expense.* The fees charged by Transamerica, Prudential, and Voya are classified as *Miscellaneous Expense.*

*Mutual fund/variable investments fee:* The variable investments have investment management fees and some may have additional administrative fees. These fees are not presented on the financial statements. Mutual fund earnings are declared net of both investment management and administrative expenses, in accordance with the Securities Exchange Commission and other regulatory authorities. Current reporting standards for mutual fund companies do not require costs be made available in the detailed cost reports.

## FY 2017 Schedule of Contribution Rates

| System | Member | Employer | State |
|---|---|---|---|
| **PERS-DBRP*** | **7.9%**<br>[19-3-315(1)(a), MCA] | **8.47%** State & University<br>**8.37%** Local Governments<br>**8.1%** School Districts (K-12)<br>[19-3-316, MCA] | **0.1%** of Local Government payroll – paid from the General Fund<br>**0.37%** School Districts (K-12) payroll – paid from the General Fund<br>[19-3-319, MCA] |
| **PERS-DCRP*** | **7.9%**<br>[19-3-315(1)(a), MCA] | **8.47%** State & University<br>**8.37%** Local Governments<br>**8.1%** School Districts (K-12)<br>[19-3-316, MCA] | **0.1%** of Local government payroll – paid from the General Fund<br>**0.37%** School Districts (K-12) payroll – paid from the General Fund<br>[19-3-319, MCA] |
| **PERS-DCRP Disability OPEB** | | **0.3%** - an allocation of the DCRP employer contribution<br>[19-3-2117, MCA] | |
| **JRS** | **7.0%**<br>[19-5-402, MCA] | **25.81%**<br>[19-5-404, MCA] | |
| **HPORS** | **13.0%** - hired prior to 7/01/97 & not electing GABA<br>**13.05%** - hired after 6/30/97 & members electing GABA<br>[19-6-402, MCA] | **28.15%**<br>[19-6-404(1), MCA] | **10.18%** of salaries – paid from the General Fund<br>[19-6-404(2), MCA] |
| **SRS*** | **9.245%**<br>[19-7-403, MCA] | **10.115%**<br>[19-7-404, MCA] | |
| **GWPORS** | **10.56%**<br>[19-8-502, MCA] | **9.0%**<br>[19-8-504, MCA] | |
| **MPORS** | **7.0%** - hired after 6/30/75 & prior to 7/1/79 & not electing GABA<br>[19-9-710(1)(a), MCA]<br>**8.5%** - hired after 6/30/79 and prior to 7/1/97 & not electing GABA<br>[19-9-710(1)(b), MCA]<br>**9.0%** - hired after 6/30/97 & members electing GABA<br>[19-9-710(1)(c), MCA & 19-9-710(2), MCA] | **14.41%**<br>[19-9-703, MCA] | **29.37%** of salaries – paid from the General Fund<br>[19-9-702, MCA] |
| **FURS** | **9.5%** - hired prior to 7/1/97 & not electing GABA<br>[19-13-601(2)(a), MCA]<br>**10.7%** - hired after 06/30/97 & members electing GABA<br>[19-13-601(2)(b), MCA] | **14.36%**<br>[19-13-605, MCA] | **32.61%** of salaries – paid from the General Fund<br>[19-13-604, MCA] |
| **VFCA** | | | **5.0%** of fire insurance against risk premiums, paid from the General Fund<br>[19-17-301, MCA] |

*The employer and/or member contribution rates increase on July 1, 2017 for PERS-DBRS, PERS-DCRP and SRS.

## Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Required Supplementary Information**

**Schedule of Changes in Multiple-Employer Plans**

**Net Pension Liability / (Asset)**

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **PERS-DBRP** | | | | |
| **Total pension liability** | | | | |
| Service cost (Beginning of year) | **$ 144,475,909** | $ 132,620,813 | $ 138,049,956 | $ 137,452,701 |
| Interest (includes interest on service cost) | **507,380,846** | 486,830,869 | 476,777,225 | 456,406,491 |
| Changes of benefit terms | | | | |
| Differences between expected and actual experience | **55,782,342** | 12,254,313 | (11,276,266) | |
| Changes of assumptions | **354,960,213** | | | |
| Benefit payments[2] | **(366,354,719)** | (344,103,875) | (333,401,463) | (307,741,308) |
| Refunds of Contributions[3] | **(12,252,007)** | (10,379,388) | | |
| Net change in total pension liability | **$ 683,992,584** | $ 277,222,732 | $ 270,149,452 | $ 286,117,884 |
| Total pension liability-beginning | **6,736,152,999** | 6,458,930,267 | 6,188,780,815 | 5,902,662,931 |
| Total pension liability-ending (a) | **$ 7,420,145,583** | $ 6,736,152,999 | $ 6,458,930,267 | $ 6,188,780,815 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer[4, 9] | **$ 103,537,059** | $ 102,327,838 | $ 100,175,856 | $ 95,820,397 |
| Contributions - non-employer | **28,757,463** | 30,800,371 | 34,466,719 | 34,561,721 |
| Contributions - member[5] | **100,768,139** | 97,342,719 | 95,424,031 | 92,160,048 |
| Net investment income[6] | **591,434,954** | 101,199,856 | 225,106,692 | 732,253,062 |
| Benefit payments[2] | **(366,354,719)** | (344,103,875) | (333,401,463) | (307,741,308) |
| Administrative expense | **(4,472,084)** | (3,858,330) | (3,483,531) | (3,522,346) |
| Refunds of Contributions[3] | **(12,252,007)** | (10,379,388) | | |
| Other[7] | **(1,706,733)** | (1,580,302) | | |
| Net change in plan fiduciary net position | **$ 439,712,072** | $ (28,251,111) | $ 118,288,304 | $ 643,531,574 |
| Plan fiduciary net position - beginning | **5,032,807,110** | 5,061,058,221 | 4,942,769,917 | $ 4,299,238,343 |
| Beginning of Year Adjustment | | | | |
| Plan fiduciary net position - ending (b)[6, 9] | **$ 5,472,519,182** | $ 5,032,807,110 | $ 5,061,058,221 | $ 4,942,769,917 |
| Net pension liability / (asset) - ending (a-b) | **$ 1,947,626,401** | $ 1,703,345,889 | $ 1,397,872,046 | $ 1,246,010,898 |
| **SRS** | | | | |
| **Total pension liability** | | | | |
| Service cost (Beginning of year) | **$ 19,186,527** | $ 18,802,901 | $ 12,574,185 | $ 15,117,708 |
| Interest (includes interest on service cost) | **27,621,242** | 22,900,429 | 25,664,435 | 23,976,049 |
| Changes of benefit terms | **(1,494,604)** | | | |
| Differences between expected and actual experience | **(170,781)** | 749,213 | (194,994) | |
| Changes of assumptions[8] | **(94,881,687)** | 56,788,521 | 43,058,238 | (49,542,278) |
| Benefit payments[2] | **(16,700,117)** | (15,476,437) | (15,280,070) | (13,943,335) |
| Refunds of Contributions[3] | **(1,383,061)** | (1,028,890) | | |
| Net change in total pension liability | **$ (67,822,481)** | $ 82,735,737 | $ 65,821,794 | $ (24,391,856) |
| Total pension liability-beginning | **474,829,830** | 392,094,093 | 326,272,299 | 350,664,155 |
| Total pension liability-ending (a) | **$ 407,007,349** | $ 474,829,830 | $ 392,094,093 | $ 326,272,299 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer[4] | **$ 7,562,105** | $ 7,316,674 | $ 6,902,448 | $ 6,689,311 |
| Contributions - non-employer | | | | |
| Contributions - member[5] | **7,188,857** | 6,982,217 | 6,623,175 | 6,447,179 |
| Net investment income[6] | **35,511,246** | 6,063,591 | 13,041,786 | 41,789,437 |
| Benefit payments[2] | **(16,700,117)** | (15,476,437) | (15,280,070) | (13,943,335) |
| Administrative expense | **(387,378)** | (322,584) | (247,405) | (203,493) |
| Refunds of Contributions[3] | **(1,383,061)** | (1,028,890) | | |
| Other[7] | **(33,489)** | (77,778) | | |
| Net change in plan fiduciary net position | **$ 31,758,163** | $ 3,456,793 | $ 11,039,934 | $ 40,779,099 |
| Plan fiduciary net position - beginning | **299,152,006** | 295,695,213 | 284,655,279 | 243,876,180 |
| Plan fiduciary net position - ending (b)[6] | **$ 330,910,169** | $ 299,152,006 | $ 295,695,213 | $ 284,655,279 |
| Net pension liability / (asset) - ending (a-b) | **$ 76,097,180** | $ 175,677,824 | $ 96,398,880 | $ 41,617,020 |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]For fiscal year 2016 forward, Benefit Payments are only benefit payments. In fiscal years 2014 and 2015 the benefit payments include refunds of contribution and transfers*

*[3]For fiscal year 2016 forward, the Refunds of Contributions includes Refunds and Distributions, Refunds to other plans and Transfers*

*[4]The Contributions - employer consists of the Employer, Membership Fees, Retirement Incentive Program, and Miscellaneous Revenue.*

*[5]The Contributions - member consists of the Plan Member and Interest Reserve Buyback.*

*[6]The fiscal year 2017 Net Investment Income and Plan Fiduciary Net Position - ending are different in this schedule from what is presented in the financial statements due to late entries from Board of Investments.*

*[7]Other consists of the expense for Other Post Employment Benefits (OPEB). For PERS it also includes Refunds to other plans, and Transfers to DCRP and MUS-RP.*

*[8]The Changes in assumptions for SRS is the adjustment in the discount rate from 7.75% to 6.68% at June 30, 2015 and to 5.93% at June 30, 2016.*

*[9]The PERS-DBRP amounts will not tie to the financial statements due to the exclusion of the PERS-DB Education (DB Ed) amount on this schedule.*

## Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Required Supplementary Information**

**Schedule of Changes in Multiple-Employer Plans**

**Net Pension Liability / (Asset)**

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **GWPORS** | | | | |
| **Total pension liability** | | | | |
| Service cost (Beginning of year) | **$ 8,624,297** | $ 8,403,076 | $ 8,008,155 | $ 7,849,828 |
| Interest (includes interest on service cost) | **14,268,596** | 12,910,129 | 12,398,209 | 11,258,354 |
| Changes of benefit terms | | | | |
| Differences between expected and actual experience | **3,742,704** | 2,705,238 | 730,818 | |
| Changes of assumptions | **5,877,594** | | | |
| Benefit payments[2] | **(5,809,910)** | (5,068,318) | (5,351,847) | (5,229,489) |
| Refunds of Contributions[3] | **(1,035,917)** | (1,065,541) | | |
| Net change in total pension liability | **$ 25,667,364** | $ 17,884,584 | $ 15,785,335 | $ 13,878,693 |
| Total pension liability / (asset) - beginning | **187,533,830** | 169,649,246 | 153,863,911 | 139,985,218 |
| Total pension liability / (asset) - ending (a) | **$ 213,201,194** | $ 187,533,830 | $ 169,649,246 | $ 153,863,911 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer[4] | **$ 4,463,631** | $ 4,278,385 | $ 4,088,117 | $ 3,762,217 |
| Contributions - non-employer | | | | |
| Contributions - member[5] | **5,278,141** | 5,035,648 | 4,924,265 | 4,461,889 |
| Net investment income[6] | **18,589,670** | 3,166,704 | 6,434,871 | 20,069,398 |
| Benefit payments[2] | **(5,809,910)** | (5,068,318) | (5,351,847) | (5,229,489) |
| Administrative expense | **(328,699)** | (269,496) | (200,745) | (161,663) |
| Refunds of Contributions[3] | **(1,035,917)** | (1,065,541) | | |
| Other[7] | **(549)** | (30,640) | | |
| Net change in plan fiduciary net position | **$ 21,156,367** | $ 6,046,742 | $ 9,894,661 | $ 22,902,352 |
| Plan fiduciary net position - beginning | **154,684,509** | 148,637,767 | 138,743,106 | 115,840,754 |
| Plan fiduciary net position - ending (b)[6] | **$ 175,840,876** | $ 154,684,509 | $ 148,637,767 | $ 138,743,106 |
| Net pension liability / (asset) - ending (a-b) | **$ 37,360,318** | $ 32,849,321 | $ 21,011,479 | $ 15,120,805 |
| **MPORS** | | | | |
| **Total pension liability** | | | | |
| Service cost (Beginning of year) | **$ 12,267,430** | $ 12,022,841 | $ 12,083,166 | $ 11,794,994 |
| Interest (includes interest on service cost) | **39,632,065** | 37,887,975 | 36,830,426 | 35,011,854 |
| Changes of benefit terms | | | | |
| Differences between expected and actual experience | **(5,057,920)** | (3,546,948) | (2,014,310) | |
| Changes of assumptions | **16,011,685** | | | |
| Benefit payments[2] | **(23,474,602)** | (21,960,690) | (22,743,995) | (20,527,874) |
| Refunds of Contributions[3] | **(1,043,487)** | (1,240,208) | | |
| Net change in total pension liability | **$ 38,335,171** | $ 23,162,970 | $ 24,155,287 | $ 26,278,974 |
| Total pension liability / (asset) - beginning | **523,640,520** | 500,477,550 | 476,322,263 | 450,043,289 |
| Total pension liability / (asset) - ending (a) | **$ 561,975,691** | $ 523,640,520 | $ 500,477,550 | $ 476,322,263 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer[4] | **$ 7,091,246** | $ 6,927,587 | $ 6,629,915 | $ 6,459,488 |
| Contributions - non-employer | **13,960,572** | 13,751,561 | 13,432,838 | 13,048,938 |
| Contributions - member[5] | **4,465,630** | 4,384,573 | 4,291,826 | 4,133,021 |
| Net investment income[6] | **39,775,778** | 7,112,851 | 14,471,898 | 45,230,427 |
| Benefit payments[2] | **(23,474,602)** | (21,960,690) | (22,743,995) | (20,527,874) |
| Administrative expense | **(339,344)** | (273,951) | (212,017) | (166,807) |
| Refunds of Contributions[3] | **(1,043,487)** | (1,240,208) | | |
| Other[7] | **(491)** | (131,634) | | |
| Net change in plan fiduciary net position | **$ 40,435,302** | $ 8,570,089 | $ 15,870,465 | $ 48,177,193 |
| Plan fiduciary net position - beginning | **343,626,914** | 335,056,825 | 319,186,360 | 271,009,167 |
| Plan fiduciary net position - ending (b)[6] | **$ 384,062,216** | $ 343,626,914 | $ 335,056,825 | $ 319,186,360 |
| Net pension liability / (asset) - ending (a-b) | **$ 177,913,475** | $ 180,013,606 | $ 165,420,725 | $ 157,135,903 |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]For fiscal year 2016, Benefit Payments are only benefit payments. In fiscal years 2014 and 2015, the benefit payments include refunds of contributions and transfers.*

*[3]For fiscal year 2016, the Refunds of Contributions includes Refunds and Distributions, Refunds to other plans and transfers.*

*[4]The Contributions - employer consists of the Employer, Membership Fees, Retirement Incentive Program, and Miscellaneous Revenue.*

*[5]The Contributions - member consists of the Plan Member and Interest Reserve Buyback.*

*[6]The fiscal year 2017 Net Investment Income and Plan Fiduciary Net Position - ending are different in this schedule from what is presented in the financial statements due to late entries from Board of Investments.*

*[7]Other consists of the expense for Other Post Employment Benefits (OPEB).*

## Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Required Supplementary Information**

**Schedule of Changes in Multiple-Employer Plans**

**Net Pension Liability / (Asset)**

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **FURS** | | | | |
| **Total pension liability** | | | | |
| Service cost (Beginning of year) | **$ 12,162,734** | $ 11,519,465 | $ 11,066,391 | $ 10,608,895 |
| Interest (includes interest on service cost) | **35,230,726** | 33,514,243 | 32,580,262 | 30,847,306 |
| Changes of benefit terms | | | | |
| Differences between expected and actual experience | **893,628** | (1,162,342) | (159,885) | |
| Changes of assumptions | **16,915,553** | | | |
| Benefit payments[2] | **(22,335,636)** | (20,896,200) | (19,747,008) | (19,052,130) |
| Refunds of Contributions[3] | **(168,422)** | (46,128) | | |
| Net change in total pension liability | **$ 42,698,583** | $ 22,929,038 | $ 23,739,760 | $ 22,404,071 |
| Total pension liability / (asset) - beginning | **465,842,046** | 442,913,008 | 419,173,248 | 396,769,177 |
| Total pension liability / (asset) - ending (a) | **$ 508,540,629** | $ 465,842,046 | $442,913,008 | $ 419,173,248 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer[4] | **$ 6,499,776** | $ 6,163,464 | $ 6,100,252 | $ 6,006,863 |
| Contributions - non-employer | **14,438,412** | 13,969,719 | 13,572,990 | 12,767,624 |
| Contributions - member[5] | **4,925,425** | 4,751,806 | 4,710,082 | 4,697,333 |
| Net investment income[6] | **40,838,569** | 7,311,946 | 14,640,156 | 45,464,858 |
| Benefit payments[2] | **(22,335,636)** | (20,896,200) | (19,747,008) | (19,052,130) |
| Administrative expense | **(320,213)** | (259,560) | (197,110) | (153,622) |
| Refunds of Contributions[3] | **(168,422)** | (46,128) | | |
| Other[7] | **(485)** | (2,424) | | |
| Net change in plan fiduciary net position | **$ 43,877,426** | $ 10,992,623 | $ 19,079,362 | $ 49,730,926 |
| Plan fiduciary net position - beginning | **351,628,654** | 340,636,031 | 321,556,669 | 271,825,743 |
| Plan fiduciary net position - ending (b)[6] | **$ 395,506,080** | $ 351,628,654 | $340,636,031 | $ 321,556,669 |
| Net pension liability / (asset) - ending (a-b) | **$ 113,034,549** | $ 114,213,392 | $102,276,977 | $ 97,616,579 |
| **VFCA** | | | | |
| **Total pension liability** | | | | |
| Service cost (Beginning of year) | **$ 267,843** | $ 282,498 | $ 221,969 | $ 237,639 |
| Interest (includes interest on service cost) | **3,336,579** | 3,355,483 | 2,851,618 | 2,843,095 |
| Changes of benefit terms | | | 6,173,245 | |
| Differences between expected and actual experience | **(791,792)** | (1,141,179) | (618,854) | |
| Changes of assumptions | **2,281,533** | | | |
| Benefit payments[2] | **(2,858,443)** | (2,623,011) | (2,379,353) | (2,294,676) |
| Refunds of Contributions[3] | | | | |
| Net change in total pension liability | **$ 2,235,720** | $ (126,209) | $ 6,248,625 | $ 786,058 |
| Total pension liability / (asset) - beginning | **44,481,856** | 44,608,065 | 38,359,440 | 37,573,382 |
| Total pension liability / (asset) - ending (a) | **$ 46,717,576** | $ 44,481,856 | $ 44,608,065 | $ 38,359,440 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer[4] | | | | |
| Contributions - non-employer | **2,064,561** | 2,036,297 | 1,913,482 | $ 1,818,237 |
| Contributions - member[6] | | | | |
| Net investment income[6] | **3,836,835** | 622,331 | 1,479,954 | 4,815,491 |
| Benefit payments[2] | **(2,858,443)** | (2,623,011) | (2,379,353) | (2,294,676) |
| Administrative expense | **(288,897)** | (241,726) | (180,466) | (136,079) |
| Refunds of Contributions[3] | | | | |
| Other[7] | **(6,897)** | (14,436) | | |
| Net change in plan fiduciary net position | **$ 2,747,159** | $ (220,545) | $ 833,617 | $ 4,202,973 |
| Plan fiduciary net position - beginning | **33,883,273** | 34,103,818 | 33,270,201 | 29,067,228 |
| Plan fiduciary net position - ending (b)[6] | **$ 36,630,432** | $ 33,883,273 | $ 34,103,818 | $ 33,270,201 |
| Net pension liability / (asset) - ending (a-b) | **$ 10,087,144** | $ 10,598,583 | $ 10,504,247 | $ 5,089,239 |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]For fiscal year 2016, Benefit Payments are only benefit payments. In fiscal years 2014 and 2015, the benefit payments include refunds of contribution and transfers.*

*[3]For fiscal year 2016, the Refunds of Contributions includes Refunds and Distributions, Refunds to other plans and Transfers. Refunds are not applicable to VFCA.*

*[4]The Contributions - employer consists of the Employer, Membership Fees, Retirement Incentive Program, and Miscellaneous Revenue.*

*[5]The Contributions - member consists of the Plan Member and Interest Reserve Buyback.*

*[6]The fiscal year 2017 Net Investment Income and Plan Fiduciary Net Position - ending are different in this schedule from what is presented in the financial statements due to late entries from Board of Investments.*

*[7]Other consists of the expense for Other Post Employment Benefits (OPEB).*

## Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Required Supplementary Information**

**Schedule of Changes in Single-Employer Plans**

**Net Pension Liability / (Asset)**

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **JRS** | | | | |
| **Total pension liability** | | | | |
| Service Cost - Beginning of year | **$ 1,628,290** | $ 1,578,705 | $ 1,652,926 | $ 1,593,854 |
| Interest (includes interest on service cost) | **4,043,662** | 3,986,420 | 3,933,947 | 3,824,389 |
| Changes of benefit terms | | | | |
| Differences between expected and actual experience | **862,189** | (1,341,333) | (1,032,091) | |
| Changes of assumptions | **3,864,700** | | | |
| Benefit payments[2] | **(3,554,335)** | (3,416,023) | (3,040,988) | (3,022,512) |
| Net change in total pension liability | **$ 6,844,506** | $807,769 | $ 1,513,794 | $ 2,395,731 |
| Total pension liability / (asset) - beginning | **53,953,458** | 53,145,689 | 51,631,895 | 49,236,164 |
| Total pension liability / (asset) - ending (a) | **$ 60,797,964** | $ 53,953,458 | $ 53,145,689 | $ 51,631,895 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer | **$ 1,800,105** | $ 1,807,493 | $ 1,683,990 | $ 1,651,483 |
| Contributions - non-employer | | | | |
| Contributions - member | **488,208** | 729,180 | 534,091 | 481,461 |
| Net investment income[8] | **10,368,402** | 1,778,748 | 3,842,387 | 12,420,597 |
| Benefit payments[2] | **(3,554,335)** | (3,416,023) | (3,040,988) | (3,022,512) |
| Administrative expense | **(253,789)** | (197,445) | (135,815) | (100,567) |
| Other[3] | **(674)** | (2,742) | | |
| Net change in plan fiduciary net position | **$ 8,847,917** | $699,211 | $ 2,883,665 | $ 11,430,462 |
| Plan fiduciary net position - beginning | **87,805,718** | 87,106,507 | 84,222,842 | $ 72,792,380 |
| Plan fiduciary net position - ending (b)[8] | **$ 96,653,635** | $ 87,805,718 | $ 87,106,507 | $ 84,222,842 |
| Net pension liability / (asset) - ending (a-b) | **$ (35,855,671)** | $ (33,852,260) | $ (33,960,818) | $ (32,590,947) |
| **HPORS** | | | | |
| **Total pension liability** | | | | |
| Service Cost - Beginning of year | **$ 3,664,857** | $ 3,798,553 | $ 3,598,464 | $ 3,464,399 |
| Interest (includes interest on service cost) | **15,121,088** | 14,545,022 | 14,112,116 | 13,517,924 |
| Changes of benefit terms[4] | | | 1,855,618 | |
| Differences between expected and actual experience | **2,773,680** | 18,339 | 267,336 | |
| Changes of assumptions | **7,892,479** | | | |
| Benefit payments[2] | **(11,036,794)** | (10,482,414) | (10,000,856) | (9,443,007) |
| Refund of Contributions[5] | **(244,597)** | (93,811) | | |
| Net change in total pension liability | **$ 18,170,713** | $ 7,785,689 | $ 9,832,678 | $ 7,539,316 |
| Total pension liability / (asset) - beginning | **200,751,512** | 192,965,823 | 183,133,145 | 175,593,829 |
| Total pension liability / (asset) - ending (a) | **$ 218,922,225** | $ 200,751,512 | $ 192,965,823 | $ 183,133,145 |
| **Plan fiduciary net position** | | | | |
| Contributions - employer[6] | **$ 5,782,258** | $ 5,915,644 | $ 5,839,336 | $ 5,735,507 |
| Contributions - non-employer[6] | **262,884** | 242,749 | | |
| Contributions - member[7] | **1,949,795** | 1,917,487 | 1,624,327 | 1,458,042 |
| Net investment income[8] | **15,098,813** | 2,605,256 | 5,738,373 | 18,678,284 |
| Benefit payments[2] | **(11,036,794)** | (10,482,414) | (10,000,856) | (9,443,007) |
| Administrative expense | **(248,124)** | (197,034) | (144,253) | (109,140) |
| Refund of Contributions[5] | **(244,597)** | (93,811) | | |
| Other[3] | **(466)** | (2,276) | | |
| Net change in plan fiduciary net position | **$ 11,563,769** | $ (94,399) | $ 3,056,927 | $ 16,319,686 |
| Plan fiduciary net position - beginning | **128,972,920** | 129,067,319 | 126,010,392 | 109,690,706 |
| Plan fiduciary net position - ending (b)[8] | **$ 140,536,689** | $ 128,972,920 | $ 129,067,319 | $ 126,010,392 |
| Net pension liability / (asset) - ending (a-b) | **$ 78,385,536** | $ 71,778,592 | $ 63,898,504 | $ 57,122,753 |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]For fiscal year 2016, Benefit Payments are only benefit payments. In fiscal years 2014 and 2015, the benefit payments include refunds of contributions and transfers.*

*[3]Other consists of the expense for Other Post Employment Benefits (OPEB).*

*[4]For fiscal year 2015, the HPORS Changes of benefit terms was the addition of the DROP.*

*[5]For fiscal year 2016, the Refunds of Contributions includes refunds of member contributions.*

*[6]The fiscal year 2014 and 2015, HPORS employer and non-employer contribution differences are due to considering all non-employer contributions as employer.*

*[7]The HPORS Contributions - member consists of Plan Member and Interest Reserve Buyback on the financial statements.*

*[8]The fiscal year 2017 Net Investment Income and Plan Fiduciary Net Position - ending are different in this schedule from what is presented in the financial statements due to late entries from Board of Investments.*

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Net Pension Liability / (Asset) for Multiple-Employer Plans

### as of June 30, 2017

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **PERS-DBRP** | | | | |
| Total Pension Liability | **$7,420,145,583** | $6,736,152,999 | $6,458,930,267 | $6,188,780,815 |
| Plan Fiduciary Net Position[2,4] | **5,472,519,182** | 5,032,807,110 | 5,061,058,221 | 4,942,769,917 |
| Multiple-Employers' Net Pension Liability (Asset) | **$1,947,626,401** | $1,703,345,889 | $1,397,872,046 | $1,246,010,898 |
| Plan fiduciary net position as a percentage of the total pension liability | **73.75%** | 74.71% | 78.36% | 79.87% |
| Covered Payroll[3] | **$1,232,066,537** | $1,185,646,179 | $1,154,866,605 | $1,120,266,025 |
| Net pension liability / (asset) as a percentage of covered payroll[2] | **158.08%** | 143.66% | 121.04% | 111.22% |
| **SRS** | | | | |
| Total Pension Liability | **$ 407,007,349** | $ 474,829,830 | $ 392,094,093 | $ 326,272,299 |
| Plan Fiduciary Net Position[2] | **330,910,169** | 299,152,006 | 295,695,213 | 284,655,279 |
| Multiple-Employers' Net Pension Liability / (Asset) | **$ 76,097,180** | $ 175,677,824 | $ 96,398,880 | $ 41,617,020 |
| Plan fiduciary net position as a percentage of the total pension liability | **81.30%** | 63.00% | 75.41% | 87.24% |
| Covered Payroll | **$ 74,581,258** | $ 70,593,304 | $ 68,045,517 | $ 64,672,635 |
| Net pension liability / (asset) as a percentage of covered payroll | **102.03%** | 248.86% | 141.67% | 64.35% |
| **GWPORS** | | | | |
| Total Pension Liability | **$ 213,201,194** | $ 187,533,830 | $ 169,649,246 | $ 153,863,911 |
| Plan Fiduciary Net Position[2] | **175,840,876** | 154,684,509 | 148,637,767 | 138,743,106 |
| Multiple-Employers' Net Pension Liability / (Asset) | **$ 37,360,318** | $ 32,849,321 | $ 21,011,479 | $ 15,120,805 |
| Plan fiduciary net position as a percentage of the total pension liability | **82.48%** | 82.48% | 87.61% | 90.17% |
| Covered Payroll | **$ 49,381,004** | $ 47,108,310 | $ 44,884,739 | $ 41,636,566 |
| Net pension liability / (asset) as a percentage of covered payroll | **75.66%** | 69.73% | 46.81% | 36.32% |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]The fiscal year 2017 Plan Fiduciary Net Position is different in this schedule from what is presented in the Statement of Fiduciary Net Position due to late entries from Board of Investments.*

*[3]The fiscal year 2014 covered payroll for PERS-DBRP has been re-stated due to the transfer of compensation from the PERS-DBRP to the PERS-DCRP. This also affected the dollar amount of the Actuarially Determined Contribution because it was determined as a percent of payroll.*

*[4]The PERS-DBRP amounts will not tie to the financial statements due to the exclusion of the PERS-DB Education amount on this schedule.*

# Public Employees' Retirement Board

A Component Unit of the State of Montana

## Required Supplementary Information

## Schedule of Net Pension Liability / (Asset) for Multiple-Employer Plans

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **MPORS** | | | | |
| Total Pension Liability | **$ 561,975,691** | $ 523,640,520 | $ 500,477,550 | $ 476,322,263 |
| Plan Fiduciary Net Position[2] | **384,062,216** | 343,626,914 | 335,056,825 | 319,186,360 |
| Multiple-Employers' Net Pension Liability / (Asset) | **$ 177,913,475** | $ 180,013,606 | $ 165,420,725 | $ 157,135,903 |
| Plan fiduciary net position as a percentage of the total pension liability | **68.34%** | 65.62% | 66.95% | 67.01% |
| Covered Payroll | **$ 48,603,580** | $ 47,233,801 | $ 45,736,127 | $ 44,426,617 |
| Net pension liability / (asset) as a percentage of covered payroll | **366.05%** | 381.11% | 361.69% | 353.70% |
| **FURS** | | | | |
| Total Pension Liability | **$ 508,540,629** | $ 465,842,046 | $ 442,913,008 | $ 419,173,248 |
| Plan Fiduciary Net Position[2] | **395,506,080** | 351,628,654 | 340,636,031 | 321,556,669 |
| Multiple-Employers' Net Pension Liability / (Asset) | **$ 113,034,549** | $ 114,213,392 | $ 102,276,977 | $ 97,616,579 |
| Plan fiduciary net position as a percentage of the total pension liability | **77.77%** | 75.48% | 76.91% | 76.71% |
| Covered Payroll | **$ 45,208,091** | $ 43,118,925 | $ 41,627,233 | $ 39,891,869 |
| Net pension liability / (asset) as a percentage of covered payroll | **250.03%** | 264.88% | 245.70% | 244.70% |
| **VFCA** | | | | |
| Total Pension Liability | **$ 46,717,576** | $ 44,481,856 | $ 44,608,065 | $ 38,359,440 |
| Plan Fiduciary Net Position[2] | **36,630,432** | 33,883,273 | 34,103,818 | 33,270,201 |
| Multiple-Employers' Net Pension Liability / (Asset) | **$ 10,087,144** | $ 10,598,583 | $ 10,504,247 | $ 5,089,239 |
| Plan fiduciary net position as a percentage of the total pension liability | **78.41%** | 76.17% | 76.45% | 86.73% |
| Covered Payroll | **N/A** | N/A | N/A | N/A |
| Net pension liability / (asset) as a percentage of covered payroll | **N/A** | N/A | N/A | N/A |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]The fiscal year 2017 Plan Fiduciary Net Position is different in this schedule from what is presented in the Statement of Fiduciary Net Position due to late entries from Board of Investments.*

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Net Pension Liability / (Asset) for Single-Employer Plans

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **JRS** | | | | |
| Total Pension Liability | **$ 60,797,964** | $ 53,953,458 | $ 53,145,689 | $ 51,631,895 |
| Plan Fiduciary Net Position[2] | **96,653,635** | 87,805,718 | 87,106,507 | 84,222,842 |
| Single-Employers' Net Pension Liability / (Asset) | **$ (35,855,671)** | $ (33,852,260) | $ (33,960,818) | $ (32,590,947) |
| Plan fiduciary net position as a percentage of the total pension liability | **158.98%** | 162.74% | 163.90% | 163.12% |
| Covered Payroll | **$ 6,974,470** | $ 6,920,367 | $ 6,524,569 | $ 6,354,763 |
| Net pension liability / (asset) as a percentage of covered payroll | **-514.10%** | -489.17% | -520.51% | -512.86% |
| **HPORS** | | | | |
| Total Pension Liability | **$ 218,922,225** | $ 200,751,512 | $ 192,965,823 | $ 183,133,145 |
| Plan Fiduciary Net Position[2] | **140,536,689** | 128,972,920 | 129,067,319 | 126,010,392 |
| Single-Employers' Net Pension Liability / (Asset) | **$ 78,385,536** | $ 71,778,592 | $ 63,898,504 | $ 57,122,753 |
| Plan fiduciary net position as a percentage of the total pension liability | **64.19%** | 64.25% | 66.89% | 68.81% |
| Covered Payroll | **$ 14,778,975** | $ 15,275,964 | $ 14,549,378 | $ 14,149,269 |
| Net pension liability / (asset) as a percentage of covered payroll | **530.39%** | 469.88% | 439.18% | 403.72% |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]The fiscal year 2017 Plan Fiduciary Net Position is different in this schedule from what is presented in the Statement of Fiduciary Net Position due to late entries from Board of Investments.*

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# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Notes to the Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations for funding purposes at the dates indicated. Additional information as of latest actuarial valuation follows:

| | PERS-DBRP | JRS | HPORS |
|---|---|---|---|
| Valuation date | June 30, 2017 | June 30, 2017 | June 30, 2017 |
| Actuarial cost method | Entry Age | Entry Age | Entry Age |
| Amortization method | Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open |
| Remaining amortization period in years: | | | |
| Unfunded Liability[1] | 30 | | 37 |
| Unfunded Credit [2] | | 0 | |
| Asset valuation method | 4-Year smoothed market | 4-Year smoothed market | 4-Year smoothed market |
| ***Actuarial assumptions:*** | | | |
| Investment rate of return compounded annually (net of investment expense) | 7.65% | 7.65% | 7.65% |
| Projected salary increases | | | |
| General Wage Growth* | 3.50% | 3.50% | 3.50% |
| Merit | 0% - 6.3% | None | 0% - 6.3% |
| *Includes inflation at | 2.75% | 2.75% | 2.75% |
| Administrative Expenses as a Percentage of Payroll[3] | 0.26% | 0.18% | 0.30% |
| Benefit Adjustments | | | |
| GABA | 3% if hired prior to July 1, 2007; or 1.5% if hired between July 1, 2007 and June 30, 2013; or 0% to 1.5% if hired on or after July 1, 2013; after 1 year | 3% after 1 yr | 3% after 1 yr or 1.5% after 3 years if hired on or after July 1, 2013 |
| Non-GABA | N/A | Biennial increase to salary of active member in like position | 2% per yr service, not to exceed 5%, for probationary officer's base pay |

[1] The unfunded actuarial liability in the HPORS and GWPORS do not amortize in 30 years.

[2] Assets are larger than the past service liability – creating an unfunded credit; the credit is amortized over future costs.

[3] The administrative expenses are recognized by an additional amount added to the normal cost contribution rate for the System. This amount varies from year to year based on the prior year's actual administrative expenses.

| SRS | GWPORS | MPORS | FURS | VFCA |
|---|---|---|---|---|
| June 30, 2017 | June 30, 2017 | June 30, 2017 | June 30, 2017 | June 30, 2017 |
| Entry Age | Entry Age | Entry Age | Entry Age | Entry Age |
| Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open | Level percentage of payroll, open | Level percent of inflation, open |
| | | | | |
| 25 | 70 | 16 | 10 | 6 |
| | | | | Based on Current Revenue |
| 4-Year smoothed market | 4-Year smoothed market | 4-Year smoothed market | 4-Year smoothed market | 4-Year smoothed market |
| | | | | |
| 7.65% | 7.65% | 7.65% | 7.65% | 7.65% |
| | | | | |
| 3.50% | 3.50% | 3.50% | 3.50% | N/A |
| 0% - 6.3% | 0% - 6.3% | 0% - 6.6% | 0% - 6.3% | N/A |
| 2.75% | 2.75% | 2.75% | 2.75% | N/A |
| | | | | |
| 0.21% | 0.17% | 0.24% | 0.23% | $89,298 |
| | | | | |
| 3% or 1.5% for new hires on or after July 1, 2007, after 1 year | 3% or 1.5% for new hires on or after July 1, 2007, after 1 year | 3% after 1 yr | 3% after 1 yr | N/A |
| N/A | N/A | 50% newly confirmed officer | 50% newly confirmed officer | N/A |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Employer and Non-Employer (State) Contributions for Cost-Sharing Multiple-Employer Plans

***as of June 30, 2017***

(in thousands)

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **PERS-DBRP** | | | | |
| Actuarially Determined Contribution | $ 132,295 | $ 133,128 | $ 131,424 | $ 137,681 |
| Contributions in Relation to the Actuarially Determined Contribution | | | | |
| Employer Contributions[2, 4] | 103,537 | 102,328 | 100,176 | 95,820 |
| Non-Employer Contributions (State) | 28,758 | 30,800 | 34,467 | 34,562 |
| Total Contributions | $ 132,295 | $ 133,128 | $ 134,643 | $ 130,382 |
| **Contribution Deficiency / (Excess)** | **$ 0** | **$ (0)** | **$ (3,219)** | **$ 7,299** |
| Covered Payroll[3] | $1,232,067 | $ 1,185,646 | $ 1,154,867 | $ 1,120,266 |
| Contributions as a Percentage of Covered Payroll[3] | 10.74% | 11.23% | 11.66% | 11.64% |
| **SRS** | | | | |
| Actuarially Determined Contribution | $ 10,095 | $ 8,640 | $ 9,737 | $ 9,779 |
| Contributions in Relation to the Actuarially Determined Contribution | | | | |
| Employer Contributions[2] | 7,562 | 7,317 | 6,902 | 6,689 |
| Non-Employer Contributions (State) | | | | |
| Total Contributions | $ 7,562 | $ 7,317 | $ 6,902 | $ 6,689 |
| **Contribution Deficiency / (Excess)** | **$ 2,533** | **$ 1,323** | **$ 2,835** | **$ 3,090** |
| Covered Payroll | $ 74,581 | $ 70,593 | $ 68,046 | $ 64,673 |
| Contributions as a Percentage of Covered Payroll | 10.14% | 10.36% | 10.14% | 10.34% |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]Employer consists of the Employer, Membership Fees, Retirement Incentive Program and Miscellaneous Revenue.*

*[3]The fiscal year 2014 covered payroll of PERS-DBRP has been re-stated due to the transfer of compensation from the PERS-DBRP to the PERS-DCRP. This also affected the dollar amount of the Actuarially Determined Contribution (ADC) because it was determined as a percentage of payroll.*

*[4]The PERS-DBRP amounts will not tie to the financial statements due to the exclusion of the PERS-DB Education (DB Ed) amount on this schedule.*

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Employer and Non-Employer (State) Contributions for Cost-Sharing Multiple-Employer Plans

***as of June 30, 2017***

(in thousands)

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **GWPORS** | | | | |
| Actuarially Determined Contribution | $ 5,495 | $ 4,707 | $ 5,256 | $ 4,976 |
| Contributions in Relation to the Actuarially Determined Contribution | | | | |
| Employer Contributions[2] | 4,464 | 4,278 | 4,088 | 3,762 |
| Non-Employer Contributions (State) | | | | |
| Total Contributions | $ 4,464 | $ 4,278 | $ 4,088 | $ 3,762 |
| **Contribution Deficiency / (Excess)** | **$ 1,031** | **$ 429** | **$ 1,168** | **$ 1,214** |
| Covered Payroll | $ 49,381 | $ 47,108 | $ 44,885 | $ 41,637 |
| Contributions as a Percentage of Covered Payroll | 9.04% | 9.08% | 9.11% | 9.04% |
| **MPORS** | | | | |
| Actuarially Determined Contribution | $ 21,052 | $ 20,679 | $ 17,229 | $ 17,922 |
| Contributions in Relation to the Actuarially Determined Contribution | | | | |
| Employer Contributions[2] | 7,091 | 6,928 | 6,630 | 6,459 |
| Non-Employer Contributions (State) | 13,961 | 13,751 | 13,433 | 13,049 |
| Total Contributions | $ 21,052 | $ 20,679 | $ 20,063 | $ 19,508 |
| **Contribution Deficiency / (Excess)** | **$ 0** | **$ 0** | **$ (2,834)** | **$ (1,586)** |
| Covered Payroll | $ 48,604 | $ 47,234 | $ 45,736 | $ 44,427 |
| Contributions as a Percentage of Covered Payroll | 43.31% | 43.78% | 43.87% | 43.91% |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

[2]Employer consists of the Employer, Membership Fees, Retirement Incentive Program and Miscellaneous Revenue.

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Employer and Non-Employer (State) Contributions for Cost-Sharing Multiple-Employer Plans

***as of June 30, 2017***

(in thousands)

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **FURS** | | | | |
| Actuarially Determined Contribution | $ 20,938 | $ 20,133 | $ 13,279 | $ 13,699 |
| Contributions in Relation to the Actuarially Determined Contribution | | | | |
| Employer Contributions[2] | 6,500 | 6,163 | 6,100 | 6,007 |
| Non-Employer Contributions (State) | 14,438 | 13,970 | 13,573 | 12,767 |
| Total Contributions | $ 20,938 | $ 20,133 | $ 19,673 | $ 18,774 |
| **Contribution Deficiency / (Excess)** | **$ 0** | **$ 0** | **$ (6,394)** | **$ (5,075)** |
| Covered Payroll | $ 45,208 | $ 43,119 | $ 41,627 | $ 39,892 |
| Contributions as a Percentage of Covered Payroll | 46.32% | 46.69% | 47.26% | 47.06% |
| **VFCA** | | | | |
| Actuarially Determined Contribution | $ 2,065 | $ 2,037 | $ 890 | $ 1,116 |
| Contributions in Relation to the Actuarially Determined Contribution | | 2,036 | 1,913 | 1,818 |
| Employer Contributions | | | | |
| Non-Employer Contributions (State) | 2,065 | | | |
| Total Contributions | $ 2,065 | $ 2,036 | $ 1,913 | $ 1,818 |
| **Contribution Deficiency / (Excess)** | **$ 0** | **$ 1** | **$ (1,023)** | **$ (702)** |
| Covered Payroll | N/A | N/A | N/A | N/A |
| Contributions as a Percentage of Covered Payroll | N/A | N/A | N/A | N/A |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

*[2]Employer consists of the Employer, Membership Fees, Retirement Incentive Program and Miscellaneous Revenue.*

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Notes to the Required Supplementary Information

The information presented in the GASB Statement No. 67 required supplementary schedules was determined as part of the actuarial valuations for accounting purposes at the dates indicated.

Valuation date: June 30, 2016

Key Methods and Assumptions Used to Determine the Actuarially Determined Contribution (ADC) for fiscal year end 2017:

| | |
|---|---|
| Timing | ADC rates are calculated based on the actuarial valuation just prior to the beginning of the year |
| Actuarial cost method | Entry age |
| Amortization method | Level percentage of payroll, open |
| Remaining amortization period | 30 years |
| Asset valuation method | 4-year smoothed market |
| Inflation | 3.00% |
| Salary increases | 4.00% plus merit/seniority increases, where applicable |
| Investment rate of return | 7.75% net of investment expenses |
| Mortality (Healthy) | Male and Female RP-2000 Combined Mortality projected to 2015 using Scale AA |
| Mortality (Disabled) | RP-2000 Combined Employee and Annuitant |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Employer Contributions

### for Single-Employer Plans

***as of June 30, 2017***

(in thousands)

Last 10 Fiscal Years[1]

| Fiscal Year | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **JRS[2]** | | | | |
| Actuarially Determined Contribution | | | | |
| Contributions in Relation to the Actuarially Determined Contribution: | | | | |
| Employer Contributions[3] | $ 1,800 | $ 1,807 | $ 1,684 | $ 1,651 |
| Total Contributions | $ 1,800 | $ 1,807 | $ 1,684 | $ 1,651 |
| **Contribution Deficiency / (Excess)** | **$ (1,800)** | **$ (1,807)** | **$ (1,684)** | **$ (1,651)** |
| Covered Payroll | $ 6,974 | $ 6,920 | $ 6,525 | $ 6,355 |
| Contributions as a Percentage of Covered Payroll | 25.81% | 26.11% | 25.81% | 25.98% |
| **HPORS[2]** | | | | |
| Actuarially Determined Contribution | $ 6,045 | $ 6,158 | $ 5,706 | $ 6,121 |
| Contributions in Relation to the Actuarially Determined Contribution: | | | | |
| Employer Contributions[3, 4] | 6,045 | 6,158 | 5,839 | 5,736 |
| Total Contributions | $ 6,045 | $ 6,158 | $ 5,839 | $ 5,736 |
| **Contribution Deficiency / (Excess)** | **$ 0** | **$ 0** | **$ (133)** | **$ 385** |
| Covered Payroll | $ 14,779 | $ 15,276 | $ 14,549 | $ 14,149 |
| Contributions as a Percentage of Covered Payroll | 40.90% | 38.73% | 40.13% | 40.54% |

*[1]This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

**[2] Notes to Schedule**

| | |
|---|---|
| Valuation date: June 30, 2016 | |
| Key Methods and Assumptions Used to Determine the Actuarially Determined Contribution (ADC) for fiscal year end 2017: | |
| Timing | ADC rates are calculated based on the actuarial valuation just prior to the beginning of the plan year |
| Actuarial cost method | Entry age |
| Amortization method | Level percentage of payroll, open |
| Remaining amortization period | 30 years |
| Asset valuation method | 4-year smoothed market |
| Inflation | 3.00% |
| Salary increases | 4.00% plus merit/seniority increases, where applicable |
| Investment rate of return | 7.75%, net of investment expenses |
| Mortality (Healthy) | Male and Female RP-2000 Combined Mortality projected to 2015 using Scale AA |
| Mortality (Disabled) | RP-2000 Combined Employee and Annuitant |

*[3]Employer consists of the Employer, Membership Fees, Retirement Incentive Program and Miscellaneous Revenue.*

*[4]For fiscal year 2014, the HPORS contributions for the supplemental benefit payment were classified as a non-employer contribution. It has been determined that the supplemental contribution should be classified as an employer contribution.*

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# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information
## Schedule of Investment Returns for Multiple-Employer Plans

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| Year Ended June 30 | PERS-DBRP | SRS | GWPORS |
|---|---|---|---|
| Annual money-weighted rate of return, net investment expense | | | |
| **2017** | **11.94%** | **11.96%** | **11.97%** |
| 2016 | 2.04% | 2.05% | 2.09% |
| 2015 | 4.60% | 4.59% | 4.59% |
| 2014 | 17.18% | 17.15% | 17.12% |

| Year Ended June 30 | MPORS | FURS | VFCA |
|---|---|---|---|
| Annual money-weighted rate of return, net investment expense | | | |
| **2017** | **11.92%** | **11.93%** | **11.89%** |
| 2016 | 2.18% | 2.19% | 1.85% |
| 2015 | 4.66% | 4.66% | 4.63% |
| 2014 | 17.16% | 17.15% | 17.23% |

[1]*This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Investment Returns for Single-Employer Plans

***as of June 30, 2017***

Last 10 Fiscal Years[1]

| | Year Ended June 30 | JRS | HPORS |
|---|---|---|---|
| Annual money-weighted rate of return, net investment expense | | | |
| | **2017** | **11.96%** | **11.92%** |
| | 2016 | 2.03% | 2.02% |
| | 2015 | 4.60% | 4.61% |
| | 2014 | 17.17% | 17.19% |

[1]*This Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Required Supplementary Information

## Schedule of Funding Progress for OPEB (Healthcare)

(in thousands)

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (UAAL) (b-a) | Funded Ratio % (a/b) | Covered Payroll ( c ) | UAAL as a Percentage of Covered Payroll ((b-a)/c) |
|---|---|---|---|---|---|---|
| 1/1/2015 | | $ 1,306,704 | $ 1,306,704 | 0.00% | $2,340,438 | 55.83% |
| 1/1/2013 | | $ 969,127 | $ 969,127 | 0.00% | $1,991,739 | 48.66% |
| 1/1/2011[1] | | $ 733,935 | $ 733,935 | 0.00% | $1,664,229 | 44.64% |

At June 30, 2017, the most recent actuarial valuation available was performed by the State of Montana as of January 1, 2015 for the calendar year ending December 31, 2015. This actuarial valuation is performed every two years with the next valuation to be performed as of January 1, 2017 for the calendar year ending December 31, 2017. The State of Montana finances claims on a pay-as-you-go basis and does not advance fund the OPEB liability. Therefore, the funded ratio remains at 0% at June 30, 2017. This is the OPEB obligation for MPERA as a State of Montana employer and is determined by the State of Montana.

[1]The Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL) were adjusted for the actuarial valuation date 1/1/2011 to show the inactive membership that was not included in the amounts reported in the FY2012 CAFR.

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Notes to Required Supplementary Information for OPEB (Healthcare)

| | |
|---|---|
| Valuation Date | January 1, 2015 |
| Actuarial cost method | Projected unit credit funding method |
| Amortization method | Level percent of payroll, open |
| Remaining amortization period | 30 years |
| Asset valuation method | Not applicable because no assets meeting the definition of plan assets under GASB 45 |

***Actuarial assumptions:***

| | |
|---|---|
| Projected salary increases | 2.50% |
| Participation | |
| Future retirees | 55.0% |
| Future eligible spouses | 60.0% |
| Interest/Discount Rate | 4.25% |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Schedule of Administrative Expenses

***Year Ended June 30, 2017***

| | Defined Benefit Plans | PERS-DBRP Education Fund | Defined Contribution PERS-DCRP | Deferred Compensation (457) Plan |
|---|---|---|---|---|
| ***Personal Services*** | | | | |
| Salaries | $ 1,896,003 | $ 359,576 | $ 267,574 | $ 176,632 |
| Board Members' Per Diem | 2,911 | | 355 | 284 |
| Employee Benefits | 683,270 | 144,008 | 92,778 | 59,882 |
| **Total Personal Services** | 2,582,184 | 503,584 | 360,707 | 236,798 |
| ***Other Services*** | | | | |
| Consulting and Professional Services | 2,453,300 | | 233,314 | 268,868 |
| Legal Fees and Court Costs | 23,066 | | 216 | 173 |
| Audit Fees | 29,787 | | 3,633 | 2,906 |
| Medical Services | 5,074 | | 267 | |
| Records Storage | 4,625 | | 564 | 451 |
| Computer Processing | 302,682 | 400 | 32,971 | 12,612 |
| Printing and Photocopy Charges | 21,194 | 3,371 | 2,080 | 1,880 |
| Warrant Writing Services | 54,050 | | 6,591 | 5,273 |
| Other | 428,934 | 3,737 | 36,323 | 16,710 |
| **Total Other Services** | 3,322,712 | 7,508 | 315,959 | 308,873 |
| ***Communications*** | | | | |
| Recruitment Costs | | | | |
| Postage and Mailing | 66,318 | 4,726 | 2,197 | 2,943 |
| Telephone | 45,841 | 8,894 | 5,832 | 4,539 |
| **Total Communications** | 112,159 | 13,620 | 8,029 | 7,482 |
| ***Other Expenses*** | | | | |
| Supplies and Materials | 90,702 | 15,467 | 11,845 | 9,310 |
| Travel | 21,973 | 3,475 | 4,162 | 3,474 |
| Rent | 218,502 | 43,700 | 28,093 | 21,850 |
| Repairs and Maintenance | 377 | 28 | 47 | 37 |
| Compensated Absences | (32,929) | 39,584 | 11,307 | (14,094) |
| OPEB Expenses | 89,200 | 18,710 | 11,770 | 7,915 |
| Miscellaneous | 322,849 | 21,428 | 84,011 | 39,077 |
| **Total Other Expenses** | 710,674 | 142,392 | 151,235 | 67,569 |
| ***Total Administrative Expens***es | $ 6,727,729 | $ 667,104 | $ 835,930 | $ 620,722 |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Schedule of Investment Expenses

***Year Ended June 30, 2017***

| Plan | Investment Manager | Fees |
|---|---|---|
| PERS-DBRP | Board of Investments | $ 27,684,610 |
| PERS-DCRP<br>DISABILITY OPEB | Board of Investments | $1,712 |
| JRS | Board of Investments | 485,376 |
| HPORS | Board of Investments | 707,368 |
| SRS | Board of Investments | 1,661,927 |
| GWPORS | Board of Investments | 870,821 |
| MPORS | Board of Investments | 1,864,390 |
| FURS | Board of Investments | 1,913,928 |
| VFCA | Board of Investments | 180,362 |
| DC | PIMCO | 27,096 |
| | State Street Bank | 2,236 |
| | Transamerica | 9,070 |
| | Prudential | 9,088 |
| | Voya | 9,544 |
| 457 | PIMCO | 462,444 |
| | State Street Bank | 38,120 |
| | Transamerica | 154,779 |
| | Prudential | 155,078 |
| | Voya | 162,869 |
| ***Total Investment Expense*** | | **$ 36,400,818** |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Schedule of Professional/Consultant Fees

***Year Ended June 30, 2017***

| Individual or Firm | Nature of Service | Amount Paid |
|---|---|---|
| **Consultant Fees** | | |
| Cavanaugh Macdonald Consulting | Actuarial Audit | $ 286,316 |
| Cheiron, Inc | Actuarial Consultant | 11,008 |
| Comserv, Inc. | Death Validation Services | 1,365 |
| Conduent | Mutual Funds Performance Review | 31,332 |
| Department of Administration | Internal Audit | 700 |
| Genuent USA LLC | Project Management | 20,535 |
| Government Finance Officers Assoc. | CAFR Review | 725 |
| Ice Miller | Tax Consultants | 35,960 |
| Lexis Nexis | Risk Data Management Services | 390 |
| Public Pension Coordinating Council | Pension Standards Award | 100 |
| Sagitec Solutions, LLC | Pension Systems Design | 2,362,515 |
| Ventera Corporation | Data Services | 134,372 |
| Xerox Corporation dba Buck Consultants | Mutual Funds Performance Review | 70,164 |
| **Consultant Fees Subtotal** | | 2,955,482 |
| **Other Professional Fees** | | |
| Dean Gregg, PHD | Medical Consultant | 1,105 |
| Department of Justice | Legal Services | 3,373 |
| Legislative Audit Division | Independent Auditors | 36,326 |
| Timothy D. Schofield, MD PLLC | Medical Consultant | 4,236 |
| **Other Professional Fees Subtotal** | | 45,040 |
| **Total Professional/Consultant Fees** | | $ 3,000,522 |

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# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Detail of Fiduciary Net Position** (PERS-DBRP and PERS-DBEd)

***as of June 30, 2017***

| | PERS-DBRP | PERS-DBEd | TOTAL |
|---|---|---|---|
| ***Assets*** | | | |
| Cash and Short-term Investments | $ 139,342,997 | $ 2,918,075 | $ 142,261,072 |
| Securities Lending Collateral | 31,162,478 | | 31,162,478 |
| Receivables | | | |
| Interest | 128,520 | 2,598 | 131,118 |
| Accounts Receivable | 3,101,652 | 13,894 | 3,115,546 |
| Due from Other Funds | 638,328 | | 638,328 |
| Due from Primary Government | 6,051,738 | | 6,051,738 |
| Notes Receivable | 25,634 | | 25,634 |
| *Total Receivables* | 9,945,872 | 16,492 | 9,962,364 |
| Investments, at fair value | | | |
| CAPP Participant Pool | 5,326,238,203 | | 5,326,238,203 |
| *Total Investments* | 5,326,238,203 | | 5,326,238,203 |
| Capital Assets | | | |
| Property and Equipment, at cost, net of Accumulated Depreciation | 31,574 | 1,733 | 33,307 |
| Intangible Assets at Cost net of amortization expense | 1,297,993 | | 1,297,993 |
| *Total Capital Assets* | 1,329,567 | 1,733 | 1,331,300 |
| ***Total Assets*** | 5,508,019,117 | 2,936,300 | 5,510,955,417 |
| ***Liabilities*** | | | |
| Securities Lending Liability | 31,162,478 | | 31,162,478 |
| Accounts Payable | 2,891,464 | 45,070 | 2,936,534 |
| Unearned Revenue | 176,366 | | 176,366 |
| Due to Other Funds | 286,156 | 265 | 286,421 |
| Compensated Absences | 377,129 | 50,161 | 427,290 |
| OPEB Implicit Rate Subsidy LT | 527,319 | 66,658 | 593,977 |
| ***Total Liabilities*** | 35,420,912 | 162,154 | 35,583,066 |
| ***Net Position Restricted for Pension Benefits*** | **$ 5,472,598,205** | **$ 2,774,146** | **$ 5,475,372,351** |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

**Detail of Changes in Fiduciary Net Position** (PERS-DBRP and PERS-DBEd)

***for the Fiscal Year Ended June 30, 2017***

| | PERS-DBRP | PERS-DBEd | TOTAL |
|---|---|---|---|
| **Additions** | | | |
| **Contributions** | | | |
| Employer | $ 103,337,407 | $ 364,835 | $ 103,702,242 |
| Plan Member | 100,709,749 | | 100,709,749 |
| Interest Reserve Buyback | 58,390 | | 58,390 |
| Retirement Incentive Program | 70,335 | | 70,335 |
| Miscellaneous Revenue | 129,317 | | 129,317 |
| State Contributions | 896,324 | | 896,324 |
| Coal Tax Transfers | 27,861,139 | | 27,861,139 |
| *Total Contributions* | 233,062,661 | 364,835 | 233,427,496 |
| **Investment Income** | | | |
| Net Appreciation (Depreciation) in Fair Value of Investments | 340,219,024 | (163) | 340,218,861 |
| Interest | 268,451,074 | 24,734 | 268,475,808 |
| Dividends | 9,576,416 | | 9,576,416 |
| Investment Expense | (27,684,610) | | (27,684,610) |
| *Net Investment Income* | 590,561,904 | 24,571 | 590,586,475 |
| **Securities Lending Income** | | | |
| Securities Lending Income | 1,570,599 | 75 | 1,570,674 |
| Securities Lending Rebate and Fees | (618,526) | (34) | (618,560) |
| *Net Securities Lending Income* | 952,073 | 41 | 952,114 |
| ***Total Net Investment Income*** | 591,513,977 | 24,612 | 591,538,589 |
| ***Total Additions*** | 824,576,638 | 389,447 | 824,966,085 |
| **Deductions** | | | |
| Benefits | 366,354,719 | | 366,354,719 |
| Refunds/Distributions | 12,252,007 | | 12,252,007 |
| Refunds to Other Plans | 73,930 | | 73,930 |
| Transfers to DCRP | 1,419,600 | | 1,419,600 |
| Transfers to MUS-RP | 127,663 | | 127,663 |
| OPEB Expenses | 85,540 | 18,710 | 104,250 |
| Administrative Expenses | 4,472,084 | 648,394 | 5,120,478 |
| ***Total Deductions*** | 384,785,543 | 667,104 | 385,452,647 |
| ***Net Increase (Decrease)*** | 439,791,095 | (277,657) | 439,513,438 |
| ***Net Position Restricted for Pension Benefits*** | | | |
| **Beginning of Year** | **5,032,807,110** | **3,051,803** | **5,035,858,913** |
| **End of Year** | **$ 5,472,598,205** | **$ 2,774,146** | **$ 5,475,372,351** |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Detail of Fiduciary Net Position (PERS-DCRP, PERS-DCEd)

***as of June 30, 2017***

| | PERS-DCRP | PERS-DCEd | TOTAL |
|---|---|---|---|
| ***Assets*** | | | |
| Cash and Short-term Investments | $ 1,412,300 | $ 199,503 | $ 1,611,803 |
| Securities Lending Collateral | | | |
| Receivables | | | |
| Interest | 799 | 177 | 976 |
| Accounts Receivables | 168,901 | 3,778 | 172,679 |
| Due from Other Funds | 280,446 | 703 | 281,149 |
| *Total Receivables* | 450,146 | 4,658 | 454,804 |
| Investments, at fair value | | | |
| Defined Contributions Fixed Investments | 14,154,738 | | 14,154,738 |
| Defined Contributions Variable Investments | 177,998,074 | | 177,998,074 |
| *Total Investments* | 192,152,812 | | 192,152,812 |
| Property and Equipment, at cost, | | | |
| net of Accumulated Depreciation (Note A2) | 3,806 | 247 | 4,053 |
| Intangible Assets at cost, | | | |
| net of amortization expense | 310,101 | | 310,101 |
| Construction Work in Progress | | | |
| Total Capital Assets | 313,907 | 247 | 314,154 |
| ***Total Assets*** | 194,329,165 | 204,408 | 194,533,573 |
| ***Liabilities*** | | | |
| Securities Lending Liability | | | |
| Accounts Payable | 770,304 | 6,014 | 776,318 |
| Compensated Absences | 48,138 | 8,449 | 56,587 |
| OPEB Implicit Rate Subisidy LT | 61,071 | 7,026 | 68,097 |
| ***Total Liabilities*** | 879,513 | 21,489 | 901,002 |
| ***Net Position Restricted for Pension Benefits*** | **$ 193,449,652** | **$ 182,919** | **$ 193,632,571** |

# Public Employees' Retirement Board

*A Component Unit of the State of Montana*

## Detail of Changes in Fiduciary Net Position (PERS-DCRP, PERS-DCEd)

***for the Fiscal Year Ended June 30, 2017***

| | PERS-DCRP | PERS-DCEd | TOTAL |
|---|---|---|---|
| ***Additions*** | | | |
| **Contributions** | | | |
| Employer | $ 10,693,375 | $ 58,465 | $ 10,751,840 |
| Plan Member | 11,827,865 | | 11,827,865 |
| Miscellaneous Revenue | 68,475 | | 68,475 |
| Forfeiture of Nonvested Member | 396,650 | | 396,650 |
| *Total Contributions* | 22,986,365 | 58,465 | 23,044,830 |
| **Investment Income** | | | |
| Net Appreciation (Depreciation) in Fair Value of Investments | 17,912,572 | | 17,912,572 |
| Interest | 4,510,637 | 1,712 | 4,512,349 |
| Investment Expense | (57,034) | | (57,034) |
| *Net Investment Income* | 22,366,175 | 1,712 | 22,367,887 |
| **Securities Lending Income** | | | |
| Securities Lending Income | 24 | 5 | 29 |
| Securities Lending Rebate and Fees | (11) | (2) | (13) |
| *Net Securities Lending Income* | 13 | 3 | 16 |
| ***Total Net Investment Income*** | 22,366,188 | 1,715 | 22,367,903 |
| ***Total Additions*** | 45,352,553 | 60,180 | 45,412,733 |
| ***Deductions*** | | | |
| Distributions | 7,037,396 | | 7,037,396 |
| OPEB Expenses | 9,634 | 2,136 | 11,770 |
| Administrative Expenses | 740,994 | 83,166 | 824,160 |
| Miscellaneous Expenses | 225,104 | | 225,104 |
| ***Total Deductions*** | 8,013,128 | 85,302 | 8,098,430 |
| ***Net Increase (Decrease)*** | 37,339,425 | (25,122) | 37,314,303 |
| ***Net Position Restricted for Pension Benefits*** | | | |
| **Beginning of Year** | **156,110,227** | **208,041** | **156,318,268** |
| **End of Year** | **$ 193,449,652** | **$ 182,919** | **$ 193,632,571** |

# Report on Internal Control and Compliance

Angus Maciver, Legislative Auditor
Deborah F. Butler, Legal Counsel

Deputy Legislative Auditors
Cindy Jorgenson
Joe Murray

# 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*

The Legislative Audit Committee
of the Montana State Legislature:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to the financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Public Employees' Retirement Board (board) as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the board's basic financial statements, and have issued our report thereon dated December 20, 2017.

***Internal Control Over Financial Reporting***

In planning and performing our audit of the financial statements, we considered the board's internal control over financial reporting to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the board's internal control. Accordingly, we do not express an opinion on the effectiveness of the board'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 controls was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify

any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

***Compliance and Other Matters***

As part of obtaining reasonable assurance about whether the board'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 instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*. The identified instances of noncompliance are described below:

The Montana Public Employees' Retirement Board administers eight defined benefit retirement plans. The Montana Constitution and state law require all retirement systems to be actuarially sound. The actuarial valuations as of June 30, 2017, indicated the Game Wardens' and Peace Officers' and Highway Patrol Officers' retirement systems are not actuarially sound because they amortize in 70 years and 37 years, respectively. The maximum allowable amortization period is 30 years, as defined by state law.

The board's response to the noncompliance identified in our audit is on page C-1 of this report. The board's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

***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 board'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 board's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Respectfully submitted,

*/s/ Cindy Jorgenson*

Cindy Jorgenson, CPA
Deputy Legislative Auditor
Helena, MT

December 20, 2017

PUBLIC EMPLOYEES' RETIREMENT BOARD

BOARD RESPONSE

# MONTANA PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION

STEVE BULLOCK
GOVERNOR

DORE SCHWINDEN
EXECUTIVE DIRECTOR

STATE OF MONTANA

HELENA (406) 444-3154
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December 22, 2017

Angus Maciver, Legislative Auditor
Legislative Audit Division
State Capitol, Room 160
Helena, MT 59620

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LEGISLATIVE AUDIT DIV.

Dear Mr. Maciver:

The Montana Public Employee Retirement Administration (MPERA) has reviewed the financial audit report for fiscal year 2017. We are pleased with the findings of the report and will work hard to continue to provide the highest quality service possible to our members.

We understand the report has no current recommendations; however, it does address the prior audit recommendations regarding funding of the Sheriff's Retirement System (SRS), DCRP Disability OPEB, Game Wardens' Peace Officers' Retirement System (GWPORS), and the Highway Patrol Officers' Retirement System (HPORS).

As constitutionally required by Article VIII § 15 of the Montana Constitution, the Public Employees' Retirement Board (PERB) confronts all defined benefit plan funding shortfalls and recommends funding increases when plans do not amortize within 30 years. In line with previous audit recommendations regarding the funding status of specific defined benefit plans administered by MPERA, the PERB and MPERA have taken the following actions to address the funding shortfalls of each defined benefit plan listed below.

Sheriffs' Retirement System (SRS)

After working closely with plan stakeholders throughout the legislative interim, MPERA, with the support of plan stakeholders, introduced House Bill 383 during the 65th Legislative Session to increase the funding status and overall actuarial soundness of the Sheriffs' Retirement System (SRS). This bill was formally passed by the Montana Legislature on April 20, 2017 and was signed into law by Governor Bullock on May 4, 2017. With an effective date of July 1, 2017, the bill increased contributions for SRS employees by 1.25% and for SRS employers by 3%. As reflected in the June 30, 2017 actuarial valuation of SRS, due to the successful implementation of this legislation the SRS system now amortizes in 25 years.

DCRP Disability OPEB Funding

On April 4, 2016, the PERB and Montana Board of Investments (BOI), entered into a separate contract with Blackrock Institutional Trust Company N.A. to manage and diversify the investment

asset allocation of the DCRP Disability OPEB plan into longer-term asset classes with higher rates of return in order to get this plan under the 30 years of amortization. As reflected in the June 30, 2017 actuarial valuation, the number of years to amortize the unfunded actuarial liability decreased to 19 years from not amortizing at June 30, 2016. The funded status of the plan increased to 87.14% from 86.83% at June 30, 2017.

Game Wardens' and Peace Officers' Retirement System (GWPORS)

After working closely with plan stakeholders throughout the legislative interim, MPERA introduced House Bill 136 during the 65th Legislative Session to increase the funding status and overall actuarial soundness of the Game Wardens' and Peace Officers' Retirement System (GWPORS). The provisions of the bill would have increased contributions for GWPORS employees by .44% and for GWPORS employers by 2%. As noted in the fiscal note accompanying the bill, such an increase would have brought the amortization period of the system below 30 years. On March 30, 2017, the bill passed the House by a vote of 55 to 45 but was eventually voted down by the Senate Finance and Claims Committee on April 12, 2017 and failed to become law. As required by law, MPERA will continue to work with plan stakeholders during the legislative interim and will again be proposing a separate funding bill for GWPORS during the 66th Legislature's 2019 Session. The purpose of this bill will be to increase the funding status of the GWPORS system in order to improve the actuarial soundness of the plan and to decrease the plan's amortization period.

Highway Patrol Officers' Retirement System (HPORS)

As required by Mont. Code Ann. § 19-2-405(5), MPERA's actuary, Cavanaugh Macdonald Consulting LLC, conducted an actuarial experience study for the six-year period ending June 30, 2016. On May 11, 2017, the PERB adopted the actuarial assumption changes recommended in this experience study. These assumption changes, which are outlined below and which included lowering the actuarial assumed rate of return for defined benefit systems, had the net result of increasing the actuarial accrued unfunded liability of the HPORS system, and in turn, the period necessary to amortize this liability from 28 to 37 years.

Assumption Changes:

- Lowered the interest rate from 7.75% to 7.65%;
- Lowered the inflation rate from 3.00% to 2.75%;
- Updated non-disabled mortality to the RP-2000 Combined Employee and Annuitant Mortality Table projected to 2020 using scale BB, males set back 1 year;
- Increased the rates of withdrawal;
- Lowered the wage base component of the total salary increase from 4.00% to 3.50%; and
- Increased the administrative expense load from .23% to .30%.

Due to this funding status change, and as required by law, MPERA will be working with HPORS plan stakeholders during the legislative interim to propose a separate funding bill for HPORS during the 66th Legislature's 2019 Session. The purpose of this bill will be to increase the

funding status of HPORS in order to improve the actuarial soundness of the plan and to decrease the plan's amortization period.

Regards,

Dore Schwinden
Executive Director