

# **MONTANA**

## **Teachers' Retirement System A Component Unit of the State of Montana**

### **COMPREHENSIVE ANNUAL FINANCIAL REPORT FISCAL YEAR ENDED JUNE 30, 2015**

**Shawn Graham  
Executive Director**

**Tammy Rau  
Deputy Executive Director**

**Prepared by:  
The Montana Teachers Retirement System  
1500 East Sixth Avenue, P.O. Box 200139  
Helena, MT 59620-0139**

**<http://www.trs.mt.gov>**

**Alternative accessible formats of this document will be provided upon request.**

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# **INTRODUCTORY SECTION**

**EXECUTIVE DIRECTOR'S LETTER OF  
TRANSMITTAL**

**CERTIFICATE OF ACHIEVEMENT FOR  
EXCELLENCE IN FINANCIAL REPORTING**

**PPCC PUBLIC PENSION STANDARDS AWARD**

**BOARD OF DIRECTORS AND PROFESSIONAL  
CONSULTANTS**

**ORGANIZATIONAL CHART**

# TEACHERS' RETIREMENT SYSTEM



STEVE BULLOCK, GOVERNOR

[www.trs.mt.gov](http://www.trs.mt.gov)

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## STATE OF MONTANA

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1500 EAST SIXTH AVENUE  
PO BOX 200139  
HELENA, MONTANA 59620-0139

1-866-600-4045  
406-444-3134

December 18, 2015

Honorable Steve Bullock  
Governor of Montana  
Room 204, State Capitol  
Helena, MT 59620

Dear Governor Bullock:

On behalf of the Montana Teachers' Retirement Board, we are pleased to present the Montana Teachers' Retirement System's Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2015. This report is intended to provide comprehensive information on the financial operations of the Montana Teachers' Retirement System (TRS) for the year. The issuance of the TRS CAFR satisfies the legal requirements of Section 19-20-201 (d) and 19-20-215, Montana Code Annotated (MCA).

TRS management is responsible for the information presented in this report and for establishing and maintaining an internal accounting control structure to reasonably assure the safekeeping of assets and the reliability of financial reporting. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

The TRS was established by state law in 1937 and has completed its 77th year of operation. The TRS is providing services to 18,316 active members, 14,839 benefit recipients, and through the Board of Investments, manages assets valued at approximately \$3.7 billion.

### PLAN QUALIFICATION CERTIFICATION

TRS is statutorily required to maintain its status as a qualified plan under Section 401(a) of the Internal Revenue Code (IRC). Qualified plan status provides tax-favorable treatment of contributions to and assets of the retirement system, including that TRS members and employers may make contributions to the retirement system on a pre-tax basis. TRS' qualified plan status is determined by the Internal Revenue Service (IRS) through periodic review of TRS's plan provisions and is evidenced by the IRS's issuance of a favorable "determination letter."

TRS submitted its most recent request for a qualification determination to the IRS on November 27, 2013. TRS received a favorable determination letter from the IRS on April 23, 2014. The

current determination letter establishing that TRS is a tax-qualified pension plan will remain in effect until a new qualification determination is issued by the IRS.

## **PLAN FUNDING STATUS**

The TRS plan's Net Funded Ratio increased from 65.45% at July 1, 2014 to 67.46% at July 1, 2015. In addition, the July 1, 2015 Actuarial Valuation shows that the current contribution rates are sufficient to pay the System's normal cost and to amortize the System's Unfunded Actuarial Accrued Liability (UAAL) in 26 years, based on the current funding methods and long term actuarial assumptions.

The total contribution rate for the fiscal year beginning July 1, 2015 is 19.31% of earned compensation. The rate is made up from employee, employer and supplemental contributions from the State of Montana. The normal cost of 9.21% of pay for the year beginning on July 1, 2015 is funded by the total contribution rate. The remaining 10.10% is available to fund the administrative expense load and the amortization of the UAAL. The UAAL is also funded through an annual contribution of \$25 million, payable on July 1<sup>st</sup>, from the State of Montana general fund. The System's UAAL as of July 1, 2015 is \$1.742 billion. Additional information regarding the financial condition of the TRS plan can be found in the Actuarial Section of this report.

Employers of the Montana University System contribute 4.72% of pay for members of the MUS Retirement Program to fund the past service liabilities of the University System members who remained in TRS after the System was closed in 1993 to new entrants, as required under §19-20-621, MCA. The most recent MUS-ORP actuarial valuation shows the MUS supplemental employer contribution rate required by this section would have to increase from 4.72% to 9.75% to maintain the amortization of the university system's past service liabilities by July 1, 2033, as required by §19-20-621.

## **ACTUARIALLY DETERMINED CONTRIBUTION**

TRS implemented the Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans, in fiscal year 2014. The new guidance under GASB 67 established a decided shift in financial disclosure requirements from a funding-based approach to an accounting-based approach. As a result, separate actuarial valuations have been performed for funding and accounting purposes. Therefore, the disclosure and use of the annual required contribution (ARC) as a funding benchmark is no longer a required reporting element. This philosophical shift compelled the development of a plan-specific actuarially determined contribution (ADC) benchmark against which to gauge the adequacy of TRS' statutory contribution rates.

The ADC is the recommended contribution amount to the plan for the reporting period, determined by the Actuary, in conformity with Actuarial Standards of Practice. If the ADC is received by the plan through contributions, in the reporting period, the contributions received will fund benefits accrued in the current period (the normal cost) as well as amortize the system's Unfunded Actuarial Accrued Liability (UAAL) in 30 years or less. As of the most recent actuarial valuation date of July 1, 2015, contributions to the plan are sufficient to fund the normal

cost plus amortize the UAAL in less than 30 years. Therefore, for the fiscal year ended June 30, 2015 the ADC is equal to the actual contributions to the plan.

**INVESTMENT ACTIVITY**

The Montana Board of Investments (BOI) manages the State’s Unified Investment Program, which includes the TRS plan investments as required by Section 19-20-501, MCA. The Unified Investment Program is required by law, 17-6-201 MCA, to operate under the "prudent expert principle", defined as: 1) discharging its duties with the care, skill, prudence, and diligence that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of like character and like aims; 2) diversifying the holdings of each fund to minimize the risk of loss and maximize the rate of return; and 3) discharging its duties solely in the interest of and for the benefit of the funds managed.

The TRS investment portfolio posted a positive total return of 4.60% for the 2015 fiscal year. The System’s total annualized rate of return over the last five and ten years was 11.57% and 6.59% respectively. The BOI invests the TRS and other pension portfolios for the long-term and its investment strategies, based on an asset/liability study completed in May 2006, are designed to provide sufficient returns over time. However, there is no guarantee of future investment performance. Performance in any given year is dependent not only on the BOI’s investment performance but also on the performance of the markets themselves, which are impacted by domestic and global economic conditions, interest rates, and government policies. Please refer to the Investment Section of this report for additional detailed information regarding TRS investments.

**TRS Investment Rates of Returns**

	<u>FY 2015</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>
Retirement Funds Bond Pool	2.29%	3.03%	4.76%	5.38%
MT Domestic Equities Pool	7.35%	17.60%	17.35%	7.77%
MT International Equities Pool	-4.20%	10.06%	8.05%	4.65%
MT Private Equities Pool	8.43%	12.43%	13.92%	10.56%
MT Real Estate Pool	13.11%	11.08%	12.14%	2.69%
Short-term Investment Pool	0.14%	0.19%	0.24%	1.80%
Total Portfolio	4.60%	11.48%	11.57%	6.59%

**PENDING LITIGATION**

On October 11, 2013, the State of Montana, the Teachers’ Retirement Board and the Teachers’ Retirement System were named as plaintiffs in a lawsuit filed by six retired members of TRS and MEA-MFT. The lawsuit sought to prevent a 1.0% reduction (from 1.5% to 0.5%) to the guaranteed annual benefit adjustment (GABA) that was included in HB 377 during the 2013 Legislature. A temporary court ordered injunction was issued on December 27, 2013 which prevented the reduction of the GABA until a final determination on the case had been determined by the court.

On June 30, 2015, Judge Menahan issued his order on the cross-motions for summary judgment. Judge Menahan determined that: TRS's GABA benefit is part of TRS's contract with its members; the reduction of the GABA for current TRS benefit recipients or Tier One members (individuals who became members of TRS before July 1, 2013) is a substantial impairment of the contract; and, the reduction of the GABA effectuated by the 2013 legislation was not reasonable and necessary. Therefore, the reduction of the GABA was a violation of TRS retirees' and Tier One members' constitutional contract rights. Judge Menahan's order permanently enjoined the retirement system from applying the modified GABA provision to TRS retirees and Tier One members. However, the modified GABA provision can and will be applied to Tier Two TRS members (individuals who first became members of TRS on or after July 1, 2013).

Because the GABA continued to be calculated and paid by TRS at the 1.5% rate pursuant to the temporary restraining order, all GABA adjustments to TRS benefit recipients have been paid in accordance with the final determination of the lawsuit, and no adjustment of benefits by TRS will be required.

The July 1, 2014 Actuarial Valuation included analysis of the funded status and amortization period of the system with and without the adjustment to GABA. The July 1, 2015 Actuarial Valuation was calculated using the GABA rate of 1.5% for Tier 1 members and 0.50% for Tier 2 members according to the summary judgement.

## **AWARDS**

The Government Finance Officers Association (GFOA) of the United States and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to Teachers' Retirement System for its Consolidated Annual Financial Report for the fiscal year ended June 30, 2014. This is the ninth consecutive year that Teachers' Retirement System has received this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized Consolidated Annual Financial Report. This report must satisfy both generally accepted accounting principles (GAAP) and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current Consolidated Annual Financial Report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to GFOA to determine its eligibility for another certificate.

The Public Pension Coordinating Council (PPCC) also awarded TRS the Public Pension Standards Award for Administration for 2015 in recognition of meeting the professional standards for plan administration as set forth in the Public Pension Standards. The PPCC is a coalition of the National Association of State Retirement Administrators, the National Conference on Public Employee Retirement Systems, and the National Council on Teacher Retirement.

## **INDEPENDENT AUDITOR**

The financial statements contained in the TRS CAFR were audited by the State's Legislative Audit Division (LAD) in accordance with generally accepted auditing standards. The Legislative Auditor is appointed by and reports to the State's Legislative Audit Committee. The LAD issued an unmodified opinion on the TRS financial statements for fiscal year 2015.

The Management's Discussion and Analysis and financial statements with accompanying notes, required supplementary information with notes and supporting schedules can be found in the Financial Section of this report.

## **CONCLUSION**

On behalf of the Board, I would like to thank the staff, the Board's advisors, and the many people whose commitment, dedication, and proficiency has directly contributed to the continued successful operation of the Montana Teachers' Retirement System. The Teachers' Retirement Board and staff look forward to continuing to serve the educators of Montana.

Sincerely,

*/s/ Shawn Graham*

Shawn Graham  
Executive Director



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Montana Teachers'  
Retirement System**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2014**

Executive Director/CEO



Public Pension Coordinating Council

***Public Pension Standards Award  
For Funding and Administration  
2015***

Presented to

***Montana Teachers' Retirement System***

In recognition of meeting professional standards for  
plan administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

*/s/ Alan H. Winkle*

Alan H. Winkle  
Program Administrator

**TEACHERS' RETIREMENT SYSTEM  
BOARD OF DIRECTORS AND  
PROFESSIONAL CONSULTANTS**

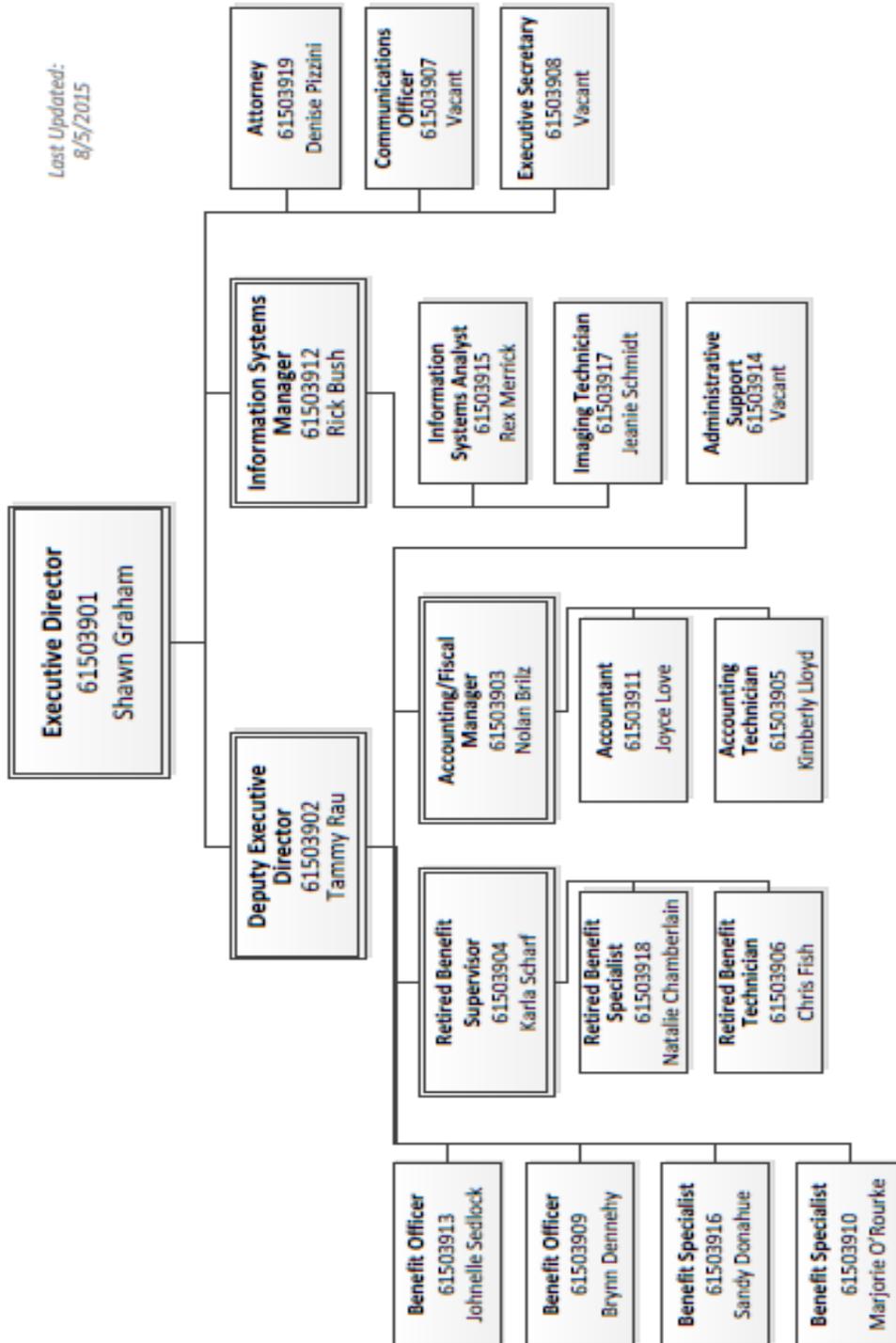
**BOARD OF DIRECTORS**

	Term Expires
KARI PEIFFER, kpeiffer@mt.gov CHAIR Active Member	JULY 1, 2017
LISA CORDINGLY, LCordingly@mt.gov Public Representative	JULY 1, 2015
JANICE MULLER, JMuller@mt.gov Active Member	JULY 1, 2016
MARILYN RYAN, mryan2@mt.gov Retired Member	JULY 1, 2016
SCOTT DUBBS, sdubbs@mt.gov Active Member	JULY 1, 2018
DANIEL TROST, dtrost@mt.gov Public Representative	JULY 1, 2019

**PROFESSIONAL CONSULTANTS**

CAVANAUGH MACDONALD CONSULTING, LLC	3550 Busbee Pky Ste 250 Kennesaw GA 30144
ICEMILLER	Legal & Business Advisors Indianapolis, IN 46282
ALFRED MUNKSGARD	IT Consultant Thousand Oaks, CA 91362
AMDEC SOFTWARE CONSULTING	IT Consultant PO Box 136 Helena, MT 59624

Last Updated:  
8/5/2015



# **FINANCIAL SECTION**

**INDEPENDENT AUDITOR'S REPORT**

**MANAGEMENT'S DISCUSSION & ANALYSIS**

**BASIC FINANCIAL STATEMENTS:**

**STATEMENT OF PLAN NET POSITION**

**STATEMENT OF CHANGES IN PLAN NET  
POSITION**

**NOTES TO FINANCIAL STATEMENTS**

**REQUIRED SUPPLEMENTARY INFORMATION**

**NOTES TO REQUIRED SUPPLEMENTARY  
INFORMATION**

**SUPPORTING SCHEDULES**

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# LEGISLATIVE AUDIT DIVISION

Tori Hunthausen, Legislative Auditor  
Deborah Butler, Legal Counsel



Deputy Legislative Auditors  
Cindy Jorgenson  
Angus Maciver

## INDEPENDENT AUDITOR'S REPORT

The Legislative Audit Committee  
of the Montana State Legislature:

### *Introduction*

We have audited the accompanying Statement of Plan Net Position of the Teachers' Retirement System (system), prepared by the Teachers' Retirement Board, a component unit of the State of Montana, as of June 30, 2015, and the related Statement of Changes in Plan Net Position for the fiscal year then ended, and the related notes which collectively comprise the system's basic financial statements.

### *Management's Responsibility for the Financial Statements*

Management, the Teachers' Retirement Board (board) and its staff, 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 system'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 system'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 financial position of the Teachers' Retirement System as of June 30, 2015, and the changes in net position for the fiscal year then ended in conformity with accounting principles generally accepted in the United States of America.

### *Other Matters*

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability–TRS Plan, Schedule of the Net Pension Liability–TRS Plan, Schedule of Investment Returns–TRS Plan, Schedule of Employer and Non-Employer Contributing Entities Contributions–TRS Plan, Schedule of Proportionate Share of the Net Pension Liability–TRS as Employer of PERS Plan, Schedule of Contributions–TRS as Employer of PERS Plan, and Other Postemployment Benefits Plan Information Schedule of Funding Progress 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 Schedule of Administrative Expenses, Schedule of Investment Expenses, and Schedule of Payments to Consultants are presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such

information directly to the underlying accounting and 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 Information*

Our audit was conducted for the purpose of forming an opinion on the basic financial statements as a whole. The Introductory, Investment, Actuarial, and Statistical sections were presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

*Other Reporting Required by Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 14, 2015, on our consideration of the 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 compliance 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 board's internal control over financial reporting and compliance. It is included in the Legislative Auditor's separately issued report (14-09B).

Respectfully submitted,

*/s/ Cindy Jorgenson*

Cindy Jorgenson, CPA  
Deputy Legislative Auditor  
Helena, MT

December 14, 2015

## **TEACHERS' RETIREMENT SYSTEM MANAGEMENT'S DISCUSSION AND ANALYSIS**

The following discussion and analysis of the Montana Teachers' Retirement System's (TRS or the System) provides a narrative overview of the TRS's financial activities for the fiscal year ended June 30, 2015.

### **Overview of the Financial Statements**

The TRS 2015 financial statements, notes to the financial statements, and required supplementary information were prepared in conformity with GASB Statement No. 67, *Financial Reporting for Pension Plans* and Statement No. 68, *Accounting and Financial Reporting for Pensions*.

Because of the long-term nature of a defined benefit pension plan, financial statements alone cannot provide sufficient information to properly reflect the System's ongoing plan perspective. The Statement of Plan Net Position reflects the resources available to pay benefits to retirees and beneficiaries. The Statement of Changes in Plan Net Position presents the changes that occurred in those resources for the fiscal year ended June 30, 2015.

The Notes to the Basic Financial Statements provide additional information that is essential to gain a full understanding of the data provided in the basic financial statements. The required supplementary information consists of the following four schedules of the defined benefit pension plan administered by TRS; changes of employers' net pension liability, employers' net pension liability, employer contributions, and the money-weighted rate of investment returns.

### **Financial Highlights**

- The TRS plan net position increased by \$57.4 million from \$3.652 billion at 06/30/14 to \$3.708 billion at 06/30/15; representing an increase of 1.5% from year to year.
- The TRS plan net investment income was \$165.7 million at 06/30/15.
- The TRS plan rate of return on investments during FY 2015 was 4.6% compared with FY 2014 rate of return of 17.1%. The lower rate of return was primarily due to leveling market performance in FY 2015. FY 2014 was also an exceptional year for returns.
- The TRS benefit payments paid to benefit recipients increased 6.4% to \$303.7 million for FY 2015, which is consistent with prior years.
- The TRS plan had a Net Pension Liability of \$1.64 billion and Net Pension Liability as a percentage of covered payroll was 213.7% as of June 30, 2015.

## Condensed Financial Information (in millions)

For comparative purposes, the Condensed Financial Information below is presented with FY 2014 financial information. (Presented in Millions)

<b><u>Fiduciary Net Position</u></b>	FY2015	FY2014	Percent Change
Cash/Short-term Investments	\$ 78.5	\$ 85.8	(8.5%)
Receivables	27.1	27.2	(0.4%)
Investments (fair value)	3,743.3	3,691.3	1.4%
Other Assets (net)	1.5	0.6	166.7%
Total Assets	3,850.4	3,804.9	1.2%
Pension Deferred Outflows	0.1	N/A	N/A
Liabilities	141.8	152.7	(6.9%)
Pension Deferred Inflows	0.3	N/A	N/A
<b>Fiduciary Net Position</b>	<b>\$3,708.4</b>	<b>\$3,652.2</b>	<b>1.5%</b>

<b><u>Change in Fiduciary Net Position</u></b>	FY2015	FY2014	Percent Change
Additions:			
Employer Contributions	\$ 87.3	\$ 83.4	4.6%
Plan Member Contributions	72.2	70.5	2.4%
Other Contributions	43.4	64.9	(33.1%)
Net Investment Income	165.7	540.3	(69.3%)
Total Additions	368.6	759.1	(51.4%)
Deductions:			
Benefit Payments	303.7	285.2	6.5%
Withdrawals	5.4	4.8	12.5%
Administrative Expenses	2.2	2.1	4.5%
Total Deductions	311.2	292.1	6.5%
<b>Change in Fiduciary Net Position</b>	<b>\$ 57.4</b>	<b>\$ 467.1</b>	<b>(87.7%)</b>

## Financial Analysis

- The change from year-to-year in cash/short-term investments was due to the change in the number of shares held, at a per share value of \$1, in the Short Term Investment Pool.
- The increase in Employer Contributions and Plan Member Contributions was due to HB 377 provisions that took effect in FY 2014 that increase contribution rates by 0.10% each year for ten years.
- The decrease in Other Contributions was due to a HB 377 provision for FY2014 only that created a one-time Retirement Reserve Sweep payment from School Districts. The provision created a \$22 million revenue injection for FY 2014 that was not realized in FY 2015.

- The increase in investments for FY 2015 was less significant than FY 2014 due to a leveling of the recovery in the economy and capital market conditions.
- Net investment income for FY2015 was positive. However the investment income was down significantly from FY2014 due to lower rates of return and a slower economy.
- The increase in Other Assets was due to investment in an upgrade to the current Pension Administration System. The system will be implemented in stages and the overall cost will be capitalized. The total costs of the project as of FYE 2015 were recorded as Construction Work in Progress. Property and Equipment is further described in Note C of this CAFR.
- The increase in benefit payments from year-to-year reflects an increase in the number of retirees and beneficiaries plus the 1.5% guaranteed annual benefit adjustment. The increase is comparative to previous fiscal years.

### Overview of the Actuarial Funding

An actuarial valuation of the System is performed annually. As of July 1, 2015, the date of the most recent actuarial valuation, the funded ratio of the System was 67.5%. This was an increase from the System’s July 1, 2014 valuation funded ratio of 65.5%.

In determining contribution rates, an actuarial value of assets is used rather than a market value of assets. The actuarial value of assets is based on a smoothed income investment rate. The TRS plan experienced an asset gain over the last year. The market value of assets had a positive return of 4.57% net of investment and operating expenses. The actuarial value of assets earned 9.59%, which is 1.84% greater than the actuarial assumption of 7.75%. Actuarial gains or losses result when the return on the actuarial value of assets differs from the actuarial investment return assumption.

MCA 19-20-201 requires the actuarial report to show how market performance is affecting the actuarial funding of the retirement system. The July 1, 2015 market value of assets is \$56.3 million more than the actuarial value of assets. This is due to the smoothing of investment gains and losses over a four year period. If the market value of assets was used, the amortization period would be 23 years and the funded ratio would be 69.30%. The following table compares the annual returns for the past three fiscal years.

<b>Fiscal Year</b>	<b>Market Return</b>	<b>Actuarial Return</b>	<b>Actuarial Return over/(under) 7.75 %</b>
7/1/2012 to 6/30/2013	12.94%	11.99%	4.24%
7/1/2013 to 6/30/2014	17.09%	13.21%	5.46%
7/1/2014 to 6/30/2015	4.57%	9.59%	1.84%

As of July 1, 2015, the System’s unfunded actuarial accrued liability was \$1.742 billion. This was a net decrease in the unfunded position of \$52 million compared to July 1, 2014.

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**TEACHERS' RETIREMENT SYSTEM  
A COMPONENT UNIT OF THE STATE OF MONTANA  
STATEMENT OF PLAN NET POSITION  
FISCAL YEAR ENDED JUNE 30, 2015**

<b>ASSETS</b>	<b>2015</b>
Cash/Cash Equivalents-Short Term	
Investment Pool (Note B)	\$ 78,462,079
Receivables:	
Accounts Receivable	22,104,153
Interest Receivable	4,982,758
Total Receivables	<u>\$ 27,086,911</u>
Investments, at fair value (Note B):	
Equity in Pooled Investments	\$ 3,602,502,966
Other Investments	608,874
Securities Lending Collateral (Note B)	140,212,476
Total Investments	<u>\$ 3,743,324,316</u>
Assets Used in Plan Operations:	
Land and Buildings	\$ 193,844
Less: Accumulated Depreciation	(150,545)
Equipment	229,000
Less: Accumulated Depreciation	(160,956)
Construction Work in Progress	1,395,626
Total Other Assets	<u>1,506,968</u>
<b>TOTAL ASSETS</b>	<u>\$ 3,850,380,274</u>
Pension Deferred Outflows (Note E)	<u>\$ 84,106</u>
 <b>LIABILITIES</b>	
Accounts Payable	\$ 144,638
Securities Lending Liability (Note B)	140,212,476
Compensated Absences (Note B)	162,407
OPEB Implicit Rate Subsidy (Note G)	286,574
Net Pension Liability (Note E)	1,009,567
<b>TOTAL LIABILITIES</b>	<u>\$ 141,815,662</u>
Pension Deferred Inflows (Note E)	<u>\$ 262,880</u>
 <b>NET POSITION RESTRICTED FOR PENSION BENEFITS</b>	 <u><u>\$ 3,708,385,838</u></u>

*The accompanying Notes to the Financial Statements  
are an integral part of this financial statement.*

**TEACHERS' RETIREMENT SYSTEM  
A COMPONENT UNIT OF THE STATE OF MONTANA  
STATEMENT OF CHANGES IN PLAN NET POSITION  
FISCAL YEAR ENDED JUNE 30, 2015**

<b>ADDITIONS</b>	<b>2015</b>
Contributions:	
Employer	\$ 87,290,863
Plan Member	72,215,797
Other	43,389,534
Total Contributions	<u>\$ 202,896,194</u>
Miscellaneous Income	\$ 27,297
Investment Income:	
Net Appreciation/(Depreciation) in Fair Value of Investments	\$ 45,548,576
Investment Earnings	139,711,734
Security Lending Income (Note B)	903,722
Investment Income/(Loss)	<u>\$ 186,164,032</u>
Less: Investment Expense	20,315,557
Less: Security Lending Expense (Note B)	163,522
Net Investment Income/(Loss)	<u>\$ 165,684,953</u>
<b>TOTAL ADDITIONS</b>	<u>\$ 368,608,444</u>
 <b>DEDUCTIONS</b>	
Benefit Payments	\$ 303,675,300
Withdrawals	5,368,359
Administrative Expense	2,035,081
OPEB Expense (Note G)	64,400
Pension Expense (Note E)	76,231
<b>TOTAL DEDUCTIONS</b>	<u>\$ 311,219,370</u>
 <b>NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION</b>	 \$ 57,389,074
 <b>NET POSITION RESTRICTED FOR PENSION BENEFITS BEGINNING OF YEAR</b>	 \$ 3,652,220,265
Prior Period Adjustment	<u>(1,223,501)</u>
 <b>NET POSITION END OF YEAR</b>	 <u><u>\$ 3,708,385,838</u></u>

*The accompanying Notes to the Financial Statements  
are an integral part of this financial statement.*

**TEACHERS' RETIREMENT SYSTEM  
A COMPONENT UNIT OF THE STATE OF MONTANA  
NOTES TO THE FINANCIAL STATEMENTS  
FISCAL YEARS ENDED JUNE 30, 2015**

**NOTE A. DESCRIPTION OF THE PLAN**

Teachers' Retirement System (TRS or the System) is a mandatory-participation multiple-employer cost-sharing defined-benefit public pension plan that provides retirement services to individuals employed as teachers, administrators, and in other professional and skilled positions employed in public education in Montana.

The TRS Board and staff administer the retirement system in conformity with the laws set forth in Title 19, chapter 20 of the Montana Code Annotated, and administrative rules set forth in Title 2, chapter 44 of the Administrative Rules of Montana. Additional information pertaining to membership, benefit structure, and prior years' actuarial valuations, as well as links to applicable statutes and administrative rules, may be obtained by visiting the TRS web site at [www.trs.mt.gov](http://www.trs.mt.gov).

The Teachers' Retirement Board is the governing body of the System. The System was established by the State of Montana in 1937 to provide retirement, death, and disability benefits to individuals employed as teachers, administrators, and in other professional and skilled positions employed in public education in Montana. TRS as an employer does not participate in the plan and acts only as the administrator of the plan.

**Board Composition**

The Teachers' Retirement Board (the Board) consists of six members, all appointed by the Governor. Three Board members must be teaching professionals who, when appointed, are active members of TRS; at least one of them must be an active classroom teacher. One Board member must be a retired teacher who was a member of TRS at the time of retirement. Two Board members are appointed from the public at large. TRS Board members serve staggered five year terms. Three Board members constitutes a quorum.

**Reporting Entities**

At June 30, 2015, the number and type of reporting entities participating in the system were as follows:

Local School Districts & Co-ops	352
Community Colleges	3
University System Units	2
<u>State Agencies</u>	<u>8</u>
Total	365

## System Membership

At July 1, 2015, the date of the most recent actuarial valuation, system membership consisted of the following:

Retirees and Beneficiaries Currently Receiving Benefits	14,839
Terminated Members:	
Vested	1,664
Non-vested	12,839
Active Plan Members:	
Full-Time	12,468
Part-Time	<u>5,848</u>
Total Membership	47,658

## Summary of Benefits

Through June 30, 2013, all members enrolled in TRS participated in a single-tiered plan ("Tier One"). Employees with a minimum of 25 years of service or who have reached age 60 with 5 years of service are eligible to receive an annual retirement benefit equal to creditable service years divided by 60 times the average final compensation. Final compensation is the average of the highest three consecutive years of earned compensation. Benefits fully vest after 5 years of creditable service. Vested employees may retire at or after age 50 and receive reduced retirement benefits. Beginning July 1, 2013, new members in TRS participate in a second benefit tier ("Tier Two"), which differs from Tier One as follows:

- Tier Two uses a 5-year average final compensation (as opposed to 3-year AFC in Tier One)
- Tier Two provides for unreduced service retirement benefits at age 60 with 5 years of creditable service or at age 55 with at least 30 years of creditable service (rather than at age 60 with 5 years of service or at any age with creditable service in 25 years in Tier One)
- Tier Two provides for early retirement benefits with 5 years of creditable service at age 55 (rather than age 50 in Tier One)
- Tier Two has a one percent higher normal employee contribution rate (though a temporary 1% supplemental employee contribution rate is also now currently in place for Tier One members), and
- Tier Two provides for an enhanced benefit calculation -  $1.85\% \times \text{AFC} \times \text{years of creditable service}$  - for members retiring with at least 30 years of creditable service and at least 60 years of age (rather than  $1.6667 \times \text{AFC} \times \text{years of creditable service}$ )

A guaranteed annual benefit adjustment (GABA) is payable on January 1st of each calendar year for each retiree who has received at least 36 monthly retirement benefit payments prior to that date. The GABA is applicable to both Tier One and Tier Two members. The GABA is calculated at 1.5% of the benefit payable as of January 1st. For Tier Two members, the GABA to be calculated each year may vary from 0.5% to 1.5% based on the retirement system's funding status and the period required to amortize any unfunded accrued actuarial liability as determined in the prior actuarial valuation.

## Overview of Contributions

The TRS funding policy provides for monthly employee and employer contributions at rates specified by state law. Plan members, for the fiscal year ending June 30, 2015, were required to contribute 8.15% of their earned compensation. School district and community college employers were required to contribute 8.57% of earned compensation. The State's General Fund contributes an additional 2.38% of earned compensation for school district and community college employers. University System and State Agency employers were required to contribute 10.95% of earned compensation. The State's General Fund also contributes an additional .11% of total earned compensation of all TRS members. Each employer in the Montana University System contributes to the TRS a supplemental employer contribution currently at a rate of 4.72% of the total compensation of employees participating in the Montana University System Retirement Program (MUS-RP).

Contribution rates for FY 2014, 2015 and 2016 for school district and community college employers are listed below.

<u>Fiscal Year</u>	<u>Members</u>	<u>Employers</u>	<u>General Fund</u>	<u>Total</u>
July 1, 2013 to June 30, 2014	8.15%	8.47%	2.49%	19.11%
July 1, 2014 to June 30, 2015	8.15%	8.57%	2.49%	19.21%
July 1, 2015 to June 30, 2016	8.15%	8.67%	2.49%	19.31%

Contribution rates for FY 2014, 2015 and 2016 for state agencies and the University System, employers are listed below.

<u>Fiscal Year</u>	<u>Members</u>	<u>Employers</u>	<u>General Fund</u>	<u>Total</u>
July 1, 2013 to June 30, 2014	8.15%	10.85%	0.11%	19.11%
July 1, 2014 to June 30, 2015	8.15%	10.95%	0.11%	19.21%
July 1, 2015 to June 30, 2016	8.15%	11.05%	0.11%	19.31%

Pursuant to 19-20-609, MCA, the employer contribution rate will increase by 0.10% each year beginning July 1, 2014 through fiscal year 2024.

## NOTE B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### Basis of Accounting

The TRS, a discretely presented component unit Pension Trust Fund of the State of Montana financial reporting entity, prepares its financial statements using the accrual basis of accounting. Employee and employer contributions are recognized as revenues in the period when due pursuant to statutory requirements and investment income is recognized when earned. Benefit and withdrawal payments are recorded in the period in which the liabilities are due and payable.

The System adheres to all applicable Governmental Accounting Standards Board (GASB) Statements.

GASB Statement No. 67 which was adopted during the year ended June 30, 2014, addresses accounting and financial reporting requirements for pension plans. The statement required changes in presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes included an actuarial calculation of total and net pension liability. It also included comprehensive footnote disclosures regarding the pension liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures. The implementation of GASB Statement No. 67 did not significantly impact the accounting for accounts receivable and investment balances. The total pension liability, determined in accordance with GASB Statement No. 67, is presented in Note D.

GASB Statement No. 68 which was adopted during the year ended June 30, 2015, addresses accounting and financial reporting requirements for public pension plan employers. As an active employer in the Public Employees' Retirement System (PERS), TRS is required to comply with GASB Statement No. 68. The statement requires additional notes to the financial statements and required supplementary information. Significant changes include recording and reporting of pension amounts including: Net Pension Liability, Pension Expense, and Deferred Inflows and Outflows of resources. The GASB Statement No. 67 actuarial calculation of total and net pension liability for PERS was allocated to each employer of PERS based on the FY2014 employer contributions. The allocated pension amounts, determined in accordance with GASB Statement No. 68, are presented in Note E.

### **Prior Period Adjustments**

Prior period adjustments reported in the accompanying financial statements relate to corrections of errors and/or changes in accounting policy from prior periods. The adjustment herein is related to changes in accounting policy from the implementation of GASB Statement 68, Accounting and Financial Reporting for Pensions and GASB 71, Pension Transition for Contributions Made Subsequent to the Measurement Date.

The implementation of Statement 68 requires employers to record a beginning net pension liability at transition and present the amount as a prior period adjustment. The implementation of GASB 68 resulted in a prior period adjustment for recording the beginning net pension liability in the amount of (\$1,299,159).

The implementation of GASB 71 requires employers to record a beginning deferred outflow of resources for its pension contributions made subsequent to the measurement date (FY 2014 contributions). The implementation of GASB 71 resulted in a prior period adjustment for recording the beginning deferred outflow of resources in the amount of \$75,657.

The implementation of GASB 68 and GASB 71 together resulted in a prior period adjustment for TRS in the amount of (\$1,223,501) for FY 2015.

## Compensated Absences

Compensated absences represent 100 percent of accrued vacation and 25 percent of accrued sick leave for TRS personnel at June 30, 2015.

## Investments

The Montana Board of Investments (BOI) manages the State's Unified Investment Program, which includes the TRS plan investments as required by Section 19-20-501, Montana Code Annotated. Per the Montana Constitution, Article VIII Section 13(3), investment of TRS assets shall be managed in a fiduciary capacity in the same manner that a prudent expert acting in a fiduciary capacity and familiar with the circumstances would use in the conduct of an enterprise of a similar character with similar aims. Investments administered by the BOI for the TRS are subject to their investment risk policies. TRS does not have an investment policy of its own to address risks. Information on investment policies, investment activity, investment management fees and a listing of specific investments owned by the pooled asset accounts can be obtained from Board of Investments at P.O. Box 200126, Helena, MT 59620-0126.

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 the fair value of each unit times the number of units owned. STIP is recorded at one dollar per unit for each unit held. The fair value of publicly traded stocks and bonds is determined by reference to market prices supplied by State Street Bank (the 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.

The TRS investments include: STIP; Retirement Funds Bond Pool (RFBP); Montana Domestic Equity Pool (MDEP); Montana International Equity Pool (MTIP); Montana Private Equity Pool (MPEP), Montana Real Estate Pool (MTRP). Other Investments consist of a portfolio of Structured Investment Vehicles (SIVs) at June 30, 2015.

### TRS Cash Equivalent and Investment Portfolio June 30, 2015

<b><u>Investment</u></b>	<b><u>Book Value</u></b>	<b><u>Fair Value</u></b>
Short-term Investment Pool	\$ 70,298,226	\$ 70,298,226
Retirement Funds Bond Pool	755,614,080	819,646,514
MT Domestic Equities Pool	396,477,203	1,456,908,955
MT International Equities Pool	360,489,693	609,168,891
MT Private Equities Pool	173,722,719	392,552,846
MT Real Estate Pool	271,099,988	324,225,760
Other Asset Backed Securities	608,874	608,874
Total	\$ <u>2,028,310,783</u>	\$ <u>3,673,140,066</u>

The investment risks for the pooled investments that TRS participates in are described in the following paragraphs. Investments are administered by the BOI, for the TRS, as part of the State of Montana’s Unified Investment Program and are responsible for setting investment risk policies.

Credit Risk – Credit risk is defined as the risk that an issuer or other counterparty to an investment will not fulfill its obligation.

Custodial Credit Risk - Custodial credit risk is the risk that, in the event of the failure of the counterparty to a transaction, the BOI may not be able to recover the value of the investment or collateral securities that are in the possession of an outside party.

Concentration of Credit Risk – Concentration of credit risk is the risk of loss attributed to the magnitude of BOI’s investment in a single issuer.

Foreign Currency Risk – Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment.

All securities in pools are held in the name of the Montana BOI, or were registered in the nominee name for the Montana BOI and held in the possession of the BOI’s custodial bank. MDEP, MTIP, MPEP, and MTRP do not invest in debt securities, so interest rate risk, credit risk, and concentration of credit risk do not apply to these holdings. According to GASB Statement No. 40, interest rate disclosures are not required for STIP since STIP is a 2a7-like pool. STIP, as an external investment pool, has not been rated. RFBP consists of corporate bonds (rated), international government bonds, municipal government bonds, sovereign bonds, U.S. government direct obligations, and U.S. government agency.

The TRS investments subject to credit and interest rate risk at June 30, 2014 are categorized below:

<u>Investment</u>	<u>Fair Value</u> 6/30/15	<u>Credit</u> <u>Quality</u> Rating 6/30/15	<u>Effective</u> <u>Duration</u> 6/30/15
RFBP	\$ 819,646,514	A+	5.37
STIP	70,298,226	NR	N/A

With the exception of the U.S. Government securities, the RFBP fixed income instruments have credit risk as measured by major credit rating services. Obligations of the U.S. Government or obligation explicitly guaranteed by the U.S. Government are not considered to have credit risk and do not require disclosure of credit quality. The total fixed income investments credit quality of rating for RFBP is not rated (NR).

MPEP, MTRP, MTIP, and RFBP include assets subject to foreign currency risk. TRS' position in these pools is approximately 37% at June 30, 2014. The Montana BOI MPEP and MTRP investments in EURO currency had a fair value of approximately \$36,061,000 at June 30, 2015. The Montana BOI MTIP and RFBP had cash and securities with a foreign currency value of approximately \$422,245,000 at June 30, 2015.

Securities Lending – Under the provisions of state statutes, BOI is authorized to lend its securities and has contracted with the custodial bank to lend the BOI 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. The BOI and the custodial bank split the earnings, 80/20% respectively, on security lending activities. The BOI retains all rights and risks of ownership during the loan period. At June 30, 2015, the 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.

#### **NOTE C. PROPERTY and EQUIPMENT**

Property and equipment consist of the amounts shown in the following table as of June 30, 2015, and 2014. Assets under \$5,000 are expensed in the year purchased. Assets 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 valued at \$100,000 or more are recorded at cost less straight-line depreciation over the estimated useful life of five to ten years. There were no significant leases as of June 30, 2015, or 2014. As of June 30, 2015 TRS has completed several modules of its upgraded pension administration system project (M-Trust). The system upgrade is being implemented on a modular basis with all modules expected to be completed by June 30, 2016. The cost of implementing and upgrading the system as of June 30, 2015 is shown below and on the Basic Financial Statements in the Construction Work in Progress line item. The upgrade will be amortized once the project is complete. The Board approved a \$2.7 million investment in the upgraded system in the spring of 2014.

	<u>2015</u>	<u>2014</u>
Land and Buildings	\$ 193,844	\$ 193,844
Less: Accumulated Depreciation	(150,545)	(150,545)
Equipment	229,000	206,696
Less: Accumulated Depreciation	(160,956)	(132,925)
Construction Work in Progress	<u>1,395,626</u>	<u>499,184</u>
Net Property and Equipment	<u>\$ 1,506,968</u>	<u>\$ 616,255</u>

## NOTE D. NET PENSION LIABILITY– TRS PLAN REPORTING

### Net Pension Liability – TRS Plan

	<u>Fiscal Year Ending</u> <u>June, 30 2015</u>
Total Pension Liability	\$5,351,391,599
Fiduciary Net Position	<u>3,708,385,838</u>
Net Pension Liability	\$1,643,005,761
Ratio of Fiduciary Net Position to Total Pension Liability	69.30%

The net pension liability, the retirement system's total pension liability (TPL) determined in accordance with GASB No. 67 less the fiduciary net position (FNP), as of June 30, 2015, is as shown above. July 1, 2015 is the date of the actuarial valuation upon which the TPL is based. Roll forward procedures were not used.

Actuarial valuation of the ongoing System involves estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The most recent experience study was performed in the spring of 2014 for the five year period ending July 1, 2013. The Schedule of Net Pension Liability presents multi-year trend information about whether the plan's fiduciary net position is increasing or decreasing over time relative to the total pension liability. This schedule is presented in the Required Supplementary Information section.

### Summary of Actuarial Assumptions – TRS Plan

The Total Pension Liability as of June 30, 2015, is based on the results of an actuarial valuation date of July 1, 2015. There were several significant assumptions and other inputs used to measure the total pension liability. The actuarial assumptions used in the July 1, 2015 valuation were based on the results of the last actuarial experience study, dated May 1, 2014. Among those assumptions were the following:

- Total Wage Increases\* 8.51%
- Investment Return 7.75%
- Price Inflation 3.25%
- Growth in Membership 0.00%
- Postretirement Benefit Increases 1.50%  
(starting three years after retirement)
- Interest on Member Accounts 5.00%

\*Total Wage Increases include 4.00% general wage increase assumption and 4.51% merit and longevity increases.

## Target Allocations – TRS Plan

<b>Asset Class</b>	<b>Target Asset Allocation (a)</b>	<b>Real Rate of Return Arithmetic Basis (b)</b>	<b>Long-Term Expected Portfolio Real Rate of Return* (a) x (b)</b>
Broad US Equity	36.00%	4.80%	1.73%
Broad International Equity	18.00%	6.05%	1.09%
Private Equity	12.00%	8.50%	1.02%
Intermediate Bonds	23.40%	1.50%	0.35%
Core Real Estate	4.00%	4.50%	0.18%
High Yield Bonds	2.60%	3.25%	0.08%
Non-Core Real Estate	<u>4.00%</u>	7.50%	<u>0.30%</u>
<b>Totals</b>	<b>100.00%</b>		<b>4.75%</b>
	<b>Inflation</b>		<b>3.25%</b>
	<b>Expected arithmetic nominal return</b>		<b>8.00%</b>

\*The long-term expected nominal rate of return above of 8.00% differs from the total TRS long-term rate of return assumption of 7.75%. The assumed rate is comprised of a 3.25% inflation rate and a real long-term expected rate of return of 4.50%.

The assumed long-term expected return on pension plan assets is reviewed as part of the regular experience studies prepared every four years for the System. The most recent analysis, performed for the period covering fiscal years 2008 through 2013, is outlined in a report dated May 1, 2014. 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 a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by the investment consultant are intended for use over a 10-year horizon and may not be useful in setting the long-term rate of return for funding pension plans which covers a longer timeframe. The assumption is intended to be a long-term assumption 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. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of June 30, 2015, is summarized in the above table.

The discount rate (long-term rate of return assumption) used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that contributions from participating plan members, employers, and non-employer contributing entities will be made based on the Board's funding policy, which establishes the contractually

required rates under Montana State Code. These rates are shown in the following tables. In addition to these contributions the State general fund will contribute \$25 million annually to the System payable July 1st of each year. Based on those assumptions, the System’s fiduciary net position was projected to be adequate to make all the projected future benefit payments of current plan members through the year 2116. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**History of Legislated Contributions  
School District and Other Employers  
by percent of covered payroll**

	<u>Members</u>	<u>Employers</u>	<u>General fund</u>	<u>Total employee &amp; employer</u>
Prior to July 1, 2007	7.15%	7.47%	0.11%	14.73%
July 1, 2007 to June 30, 2009	7.15%	7.47%	2.11%	16.73%
July 1, 2009 to June 30, 2013	7.15%	7.47%	2.49%	17.11%
July 1, 2013 to June 30, 2014	8.15%	8.47%	2.49%	19.11%
July 1, 2014 to June 30, 2015	8.15%	8.57%	2.49%	19.21%
July 1, 2015 to June 30, 2016	8.15%	8.67%	2.49%	19.31%
July 1, 2016 to June 30, 2017	8.15%	8.77%	2.49%	19.41%
July 1, 2017 to June 30, 2018	8.15%	8.87%	2.49%	19.51%
July 1, 2018 to June 30, 2019	8.15%	8.97%	2.49%	19.61%
July 1, 2019 to June 30, 2020	8.15%	9.07%	2.49%	19.71%
July 1, 2020 to June 30, 2021	8.15%	9.17%	2.49%	19.81%
July 1, 2021 to June 30, 2022	8.15%	9.27%	2.49%	19.91%
July 1, 2022 to June 30, 2023	8.15%	9.37%	2.49%	20.01%
July 1, 2023 to June 30, 2024	8.15%	9.47%	2.49%	20.11%

**State and University Employers**

	<u>Members</u>	<u>Employers</u>	<u>General Fund</u>	<u>Total</u>
Prior to July 1, 2007	7.15%	7.47%	0.11%	14.73%
July 1, 2007 to June 30, 2009	7.15%	9.47%	0.11%	16.73%
July 1, 2009 to June 30, 2013	7.15%	9.85%	0.11%	17.11%
July 1, 2013 to June 30, 2014	8.15%	10.85%	0.11%	19.11%
July 1, 2014 to June 30, 2015	8.15%	10.95%	0.11%	19.21%
July 1, 2015 to June 30, 2016	8.15%	11.05%	0.11%	19.31%
July 1, 2016 to June 30, 2017	8.15%	11.15%	0.11%	19.41%
July 1, 2017 to June 30, 2018	8.15%	11.25%	0.11%	19.51%
July 1, 2018 to June 30, 2019	8.15%	11.35%	0.11%	19.61%
July 1, 2019 to June 30, 2020	8.15%	11.45%	0.11%	19.71%
July 1, 2020 to June 30, 2021	8.15%	11.55%	0.11%	19.81%
July 1, 2021 to June 30, 2022	8.15%	11.65%	0.11%	19.91%
July 1, 2022 to June 30, 2023	8.15%	11.75%	0.11%	20.01%
July 1, 2023 to June 30, 2024	8.15%	11.85%	0.11%	20.11%

Pursuant to 19-20-609, MCA, the employer contribution rate will increase by 0.10% each year beginning July 1, 2014 through fiscal year 2024.

**Sensitivity Analysis – TRS Plan**

	<u>1.0% Decrease</u> <u>(6.75%)</u>	<u>Current Discount</u> <u>Rate</u>	<u>1.0% Increase</u> <u>(8.75%)</u>
Net Pension Liability	\$ 2,257,357,650	\$ 1,643,005,761	\$ 1,126,063,873

In accordance with GASB 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the above table presents the net pension liability calculated using the discount rate of 7.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.75%) or 1.00% higher (8.75%) than the current rate.

**Schedule of Investment Returns – TRS Plan**

**TRS PLAN  
SCHEDULE OF INVESTMENT RETURNS**

	<u>2015*</u>	<u>2014*</u>
Annual Money Weighted Rate Return, net of Investment Expense	4.618%	17.18%

*\*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

The annual money weighted rate of return on pension plan investments expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

**NOTE E. NET PENSION LIABILITY– EMPLOYER REPORTING**

In accordance with GASB Statement 68, Accounting and Financial Reporting for Pensions, TRS is required to recognize and report certain amounts associated with their participation in the Public Employees’ Retirement System (PERS). Statement 68 became effective June 30, 2015 and includes requirements to record and report their proportionate share of the collective Net Pension Liability, Pension Expense, Deferred Inflows and Deferred Outflows of resources associated with pensions.

In accordance with Statement 68, The State of Montana has a funding situation that is not Special Funding whereby the State General Fund provides contributions from the Coal Severance Tax and interest. All employers are required to report the portion of Coal Severance Tax and interest attributable to the employer as grant revenue. However, since TRS does not

receive any other contributions from the state as a result of being an employer of PERS, the State of Montana Proportionate share is \$0 as seen below.

### Net Pension Liability – TRS as an Employer of PERS Plan

	<u>Net Pension Liability as of 6/30/13</u>	<u>Net Pension Liability as of 6/30/14</u>	<u>Percent of Collective NPL</u>
TRS Proportionate Share State of Montana Proportionate Share associated with TRS	\$ 1,299,158	\$ 1,009,567	0.081024%
	<u>\$ 0</u>	<u>\$ 0</u>	<u>0.000000%</u>
Total	\$ 1,299,158	\$ 1,009,567	0.081024%

At June 30, 2015, TRS recorded a liability of \$1,009,567 for its proportionate share of the Net Pension Liability. The Net Pension Liability was measured as of June 30, 2014, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an actuarial valuation as of June 30, 2014. TRS' proportion of the Net Pension Liability was based on the employer contributions received by PERS during the measurement period July 1, 2013, through June 30, 2014, relative to the total employer contributions received from all of PERS' participating employers. At June 30, 2014, the TRS' proportion was 0.081024 percent.

### Summary of Actuarial Assumptions – PERS Plan

***Changes in actuarial assumptions and methods:*** There were no changes in assumptions or other inputs that affected the measurement of the Total Pension Liability.

***Changes in benefit terms:*** There have been no changes in benefit terms since the previous measurement date.

***Changes in proportionate share:*** There were no changes between the measurement date of the collective Net Pension Liability and the employer's reporting date that are expected to have a significant effect on the employer's proportionate share of the collective NPL.

**Pension Expense - TRS as an Employer of PERS Plan**

	<u>Pension Expense as of</u> <u>6/30/14</u>	
TRS Proportionate Share	\$	48,946
Proportionate Share of Coal Severance Tax contributions associated with TRS	\$	<u>27,285</u>
Total	\$	76,231

At June 30, 2015, TRS recognized a Pension Expense of \$76,231 for its proportionate share of the PERS’ pension expense. TRS also recognized grant revenue of \$27,285 for the support provided by the State of Montana for the proportionate share of the Coal Severance Tax contributions made to PERS that are associated with TRS.

**Recognition of Beginning Deferred Outflow - TRS as an Employer of PERS Plan**

At June 30, 2015, TRS recognized a beginning deferred outflow of resources for TRS’ FY 2014 contributions of \$75,657

**Deferred Inflows and Outflows - TRS as an Employer of PERS Plan**

At June 30, 2015, TRS reported its proportionate share of deferred outflows of resources and deferred inflows of resources related to TRS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual economic experience	\$ 0	\$ 0
Changes in actuarial assumptions	\$ 0	\$ 0
Difference between projected and actual investment earnings	\$ 0	\$ 260,856
Differences between TRS contributions and proportionate share of contributions	\$ 0	\$ 2,024
Changes in proportion	N/A	N/A
*Contributions paid to PERS subsequent to the measurement date - FY 2015 Contributions	\$ 84,104	\$ 0
Total	\$ 84,104	\$ 262,880

\*Amounts reported as deferred outflows of resources related to pensions resulting from the employer’s contributions in FY 2015 subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2016. Other amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	Deferred Outflows of Resources	Deferred Inflows of Resources	Amount recognized in Pension Expense as an increase or (decrease) to Pension Expense
2016	\$ -	\$ 65,889	\$ (65,889)
2017	\$ -	\$ 65,889	\$ (65,889)
2018	\$ -	\$ 65,889	\$ (65,889)
2019	\$ -	\$ 65,214	\$ (65,214)
2020	\$ -	\$ -	\$ -
Thereafter	\$ -	\$ -	\$ -

### **Plan Description – PERS Plan**

The PERS-Defined Benefit Retirement Plan (DBRP), administered by the Montana Public Employee Retirement Administration (MPERA), 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 contribution and defined benefit 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 contributions will be used to pay down the liability of the PERS-DBRP.

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.

## Summary of Benefits – PERS Plan

### 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;  
Age 65, regardless of membership service; or  
Any age, 30 years of membership service

Hired on or after July 1, 2011: Age 65, 5 years of membership service;  
Age 70, regardless of membership service

Early retirement,  
actuarially reduced: Hired prior to July 1, 2011: Age 50, 5 years of  
membership service; or Any age, 25 years of  
membership service

Hired on or after July 1, 2011: Age 55, 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.

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)\*

- 3% for members hired **prior to** July 1, 2007
- 1.5% for members hired **on or after** July 1, 2007 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 other adjustments to the member's benefit.

## Overview of Contributions – PERS Plan

1. Rates are specified by state law for periodic employer and employee contributions  
The State legislature has the authority to establish and amend contribution rates to the plan.
2. Member contributions to the system:
  - a. Plan members are required to contribute 7.90% of member's compensation. Contributions are deducted from each member's salary and remitted by participating employers.
  - b. The 7.90% member contributions is temporary and 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.
3. Employer contributions to the system:
  - a. State and University System employers are required to contribute 8.27% of members' compensation.
  - b. Local government entities are required to contribution 8.17% of members' compensation.
  - c. School district employers contributed 7.90% of members' compensation.
  - d. Following the 2013 Legislative Session, PERS-employer contributions were temporarily increased. Effective July 1, 2013, employer contributions increased 1.0%. Beginning July 1, 2014, employer contributions will increase an additional 0.1% a year over 10 years, through 2024. The employer additional contributions including the 0.27% added in 2007 and 2009, terminates 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 reductions of both the additional employer and member contributions rates.
  - e. Effective July 1, 2013, the additional employer contributions for DCRP and MUS-RP is allocated to the defined benefit plan's Plan Choice Rate unfunded liability.
  - f. Effective July 1, 2013, employers are required to make contributions on working retirees' compensation. Member contributions for working retirees are not required.
4. Non Employer Contributions
  - a. Special Funding
    - i. The State contributes 0.1% of members' compensation on behalf of local government entities.
    - ii. The State contributes 0.37% of members' compensation on behalf of school district entities.
  - b. Not Special Funding
    - i. The State contributes from the Coal Tax Severance fund

## Stand-Alone Statements – PERS Plan

The PERS financial information is reported in the Public Employees' Retirement Board's Comprehensive Annual Financial Report for the fiscal year ended. It is available from the PERB at 100 North Park, PO Box 200131, Helena MT 59620-0131, 406-444-3154.

CAFR information including PERS stand-alone financial statements can be found on their website at <http://mpera.mt.gov/annualReports.shtml>

The latest actuarial valuation and experience study can be found at their website at <http://mpera.mt.gov/actuarialValuations.asp>

## Actuarial Assumptions – PERS Plan

The Total Pension Liability as of June 30, 2014, is based on the results of an actuarial valuation date of June 30, 2014. There were several significant assumptions and other inputs used to measure the Total Pension Liability. The actuarial assumptions used in the June 30, 2014 valuation were based on the results of the last actuarial experience study, dated May 2010 for the six year period July 1, 2003 to June 30, 2009. Among those assumptions were the following:

- General Wage Growth\* 4.00%  
    \*includes Inflation at 3.00%
- Merit Increases 0% to 6%
- Investment Return 7.75%
- Postretirement Benefit Increases
  - 3% for members hired prior to July 1, 2007
  - 1.5% for members hired on or after July 1, 2007After the member has completed 12 full months of retirement, the member's benefit increases by the applicable percentage (provided below) each January, inclusive of other adjustments to the member's benefit.
- Mortality assumptions among contributing members, terminated vested members, service retired members and beneficiaries based on RP 2000 Combined Employee and Annuitant Mortality Tables projected to 2015 with scale AA.
- Mortality assumptions among Disabled Retirees are based on RP 2000 Combined Employee and Annuitant Mortality Tables with no projections. No future mortality improvement is assumed.

## Discount Rate – PERS Plan

The discount rate used to measure the Total Pension Liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that contributions from participating plan members, employers, and non-employer contributing entities will be made based on the PERS Board's funding policy, which establishes the contractually required rates under Montana Code Annotated. The State contributes 0.1% of salaries for local governments and 0.37% for school districts. In addition, the State contributes coal severance tax and interest money from the general fund. The interest is contributed monthly and the severance tax is contributed quarterly. Based on

those assumptions, the PERS' fiduciary net position was projected to be adequate to make all the projected future benefit payments of current plan members through the year 2122. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability. No municipal bond rate was incorporated in the discount rate.

**Target Allocations – PERS Plan**

<b>Asset Class</b>	<b>Target Asset Allocation</b>	<b>Real Rate of Return Arithmetic Basis</b>
Cash Equivalents	2.00%	-0.25%
Domestic Equity	36.00%	4.80%
Foreign Equity	18.00%	6.05%
Fixed Income	24.00%	1.68%
Private Equity	12.00%	8.50%
Real Estate	8.00%	4.50%
	100.00%	

The long-term expected return on pension plan assets is reviewed as part of the regular experience studies prepared for the PERS. The most recent analysis, performed for the period covering fiscal years 2003 through 2009, is outlined in a report dated May 2010, which is located on the MPERA website. Several factors are considered in evaluating the long-term rate of return assumption including rates of return adopted by similar public sector systems, and by using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The assumption is intended to be a long term assumption 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. Best estimates are presented as the arithmetic real rates of return for each major asset class included in the PERS target asset allocation as of June 30, 2014, is summarized in the above table.

**Sensitivity Analysis – TRS as an Employer of PERS Plan**

	1.0% Decrease (6.75%)	Current Discount Rate	1.0% Increase (8.75%)
TRS' proportion of Net Pension Liability	\$1,606,117	\$1,009,567	\$506,436

In accordance with GASB 68 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the above table presents the net pension liability calculated using the discount rate of 7.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.75%) or 1.00% higher (8.75%) than the current rate.

### **Summary of Significant Accounting Policies – PERS Plan**

The Montana Public Employee Retirement Administration (MPERA) prepares its financial statements using the accrual basis of accounting. For the purposes of measuring the Net Pension Liability, deferred inflows of resources and deferred outflows of resources related to pensions, Pension Expense, information about the fiduciary net position and additions to/deductions from fiduciary net position have been determined on the same accrual basis as they are reported by MPERA. For this purpose, 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 they are earned and become measurable. Benefit payments and refunds are recognized in the accounting period when due and payable in accordance with the benefit terms. Expenses are recognized in the period incurred. Investments are reported at fair value. MPERA adheres to all applicable Governmental Accounting Standards Board (GASB) statements.

### **NOTE F. TRS PLAN CONTRIBUTIONS**

The TRS funding policy provides for monthly employee and employer contributions at rates specified by state law. Plan members, for the fiscal year ending June 30, 2015, were required to contribute 8.15% of their earned compensation and the employer contribution rate for the fiscal year ending June 30, 2015 was 8.57% of earned compensation. For State Agency and University System employers the employer contribution rate was 10.95% of members' earned compensation.

The State's general fund contributed an additional 2.38%, for school district and community college employers, of their members' earned compensation. In addition, the State's general fund contributed .11% of earned compensation for all TRS members. Each employer in the Montana University System contributed 4.72% of the earned compensation of employees participating in the Montana University System Retirement Program (MUS-RP).

TRS actuary determines the actuarial implications of the funding requirement in annual actuarial valuations. The actuarial method used to determine the implications of the statutory funding level is the entry age actuarial cost method, with both normal cost and amortization of the accrued liability determined as a level percentage of earned compensation. Contribution rates consist of an amount for normal cost, the estimated amount necessary to finance benefits earned by the members during the current year, and an amount for amortization of the unfunded actuarial accrued liability.

Contributions made by employers and members were in accordance with actuarially computed funding requirements. Information with regard to contributions to the System, for the year ended June 30, 2015, is indicated in the Required Supplemental Information, Schedule of Employer Contributions.

## **NOTE G. OTHER POSTEMPLOYMENT BENEFITS**

### **Plan Description**

TRS employees and dependents are eligible to receive health care through the State Group Benefits Plan administered by the Montana Department of Administration (MDOA). In accordance with Section 2-18-704, MCA, the State provides optional post-employment medical, vision and dental health care benefits for retirees and their dependents and beneficiaries that elect to continue coverage and pay administratively established premiums. Plan coverage is on a calendar year basis. For GASB 45 reporting, the State Group Benefits Plan is considered an agent multiple-employer plan and TRS is considered to be a separate employer participating in the plan. Information about the State of Montana Other Postemployment Benefits (OPEB) can be obtained from the Department of Administration, State Financial Services Division, at P.O. Box 200102, Helena, MT 59620-0102.

The OPEB plan allows retirees to participate, as a group, at a rate that does not cover all of the related costs. This results in the reporting of an “implied rate” subsidy in the related financial statements and footnotes. While this liability is disclosed for financial statement purposes, it does not represent a legal liability of the TRS.

### **Funding Policy**

The contribution requirements of plan members are established and may be amended by the MDOA. The monthly premium for plan members ranges from \$299 to \$1,061 for calendar year 2013 depending on the medical plan selected, family coverage, and Medicare eligibility. The plan is financed on a pay-as-you-go basis.

## Annual OPEB Cost

The annual required contribution (ARC), an actuarially determined rate in accordance with the parameters of GASB Statement No. 45, represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years.

### Annual OPEB Cost

	<u>TRS</u>
Annual required contribution/OPEB cost	\$ 60,923
Interest on net OPEB obligation	16,119
Amortization on net OPEB obligation	(12,642)
Annual OPEB cost	<u>64,400</u>
Contributions made	<u>(18,155)</u>
Increase in net OPEB obligation	46,245
Net OPEB obligation – beginning of year	<u>240,329</u>
Net OPEB obligation – end of year	<u>\$286,574</u>

The 2015 ARC is calculated for all the plan's employers and then allocated to each participating employer. The TRS 2015 ARC is \$60,923. The 2015 ARC is equal to an annual amount required each year to fully fund the liability over 30 years. The amount of the estimated OPEB actuarial accrued liability was determined in accordance with GASB Statement 45, and the liability for TRS is estimated at \$493,412. (The actuarial accrued liability is the present value of future retiree benefits and expenses.) For fiscal year 2015, the TRS allocated annual OPEB cost (expense) was \$64,400. The June 30, 2013 figure was restated due to a change in calculation of annual OPEB costs, which did not previously include adjustments for amortization. The TRS annual OPEB cost, the percentage of annual OPEB cost contributed to the plan and the net OPEB obligation for 2015 and the five preceding years were as follows:

Fiscal Year Ended	Annual OPEB Cost	% of Annual OPEB Cost Contributed	Net OPEB Obligation
6/30/2010	59,948	20.4%	96,844
6/30/2011	62,837	27.9%	134,832
6/30/2012	59,112	9.4%	164,529
6/30/2013	59,793	12.0%	194,444
6/30/2014	58,073	21.0%	240,329
6/30/2015	64,400	28.2%	286,574

## OPEB Funded Status and Funding Progress

### Other Postemployment Benefits Plan Information

#### Schedule of Funding Progress

(All dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded (UAAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as % of covered Payroll ((b-a/c)
12/31/2007	-	\$ 449,321	\$ 449,321	0%	519,969	86.41%
12/31/2009	-	\$ 357,664	\$ 357,664	0%	526,794	67.89%
12/31/2011	-	\$ 361,053	\$ 361,053	0%	558,646	64.63%
12/31/2013	-	\$ 493,412	\$ 493,412	0%	828,985	59.52%

The funded status of the TRS allocation of the plan as of December 31, 2013, the most recent valuation date was as follows:

Actuarial accrued liability (AAL)	\$493,412
Actuarial value of plan assets	\$ 0
Unfunded actuarial accrued liability (UAAL)	\$493,412
Funded ratio (actuarial value of plan assets/AAL)	0
TRS Covered payroll (active plan members)	\$828,985
UAAL as a percentage of covered payroll	59.52%

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. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Actuarial calculations reflect a long-term perspective. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Projections of benefits for financial reporting progress are based on the substantive plan (the plan as understood by the employer and the 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 projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

## **OPEB Plan Actuarial Methods and Assumptions**

As of December 31, 2013, the TRS actuarially accrued liability (AAL) for benefits was \$493,412, with no actuarial value of assets, resulting in an unfunded actuarial accrued liability (UAAL) of \$493,412, and the ratio of the UAAL to the covered payroll was 59.52%. The UAAL is being amortized as a level dollar amount over an open basis for 30 years.

In the December 31, 2013, actuarial valuation, the projected unit credit funding method was used for the State. The actuarial assumptions included a 4.25% discount rate and a 2.50% payroll growth rate. The projected annual healthcare cost trend rate is 10.0% for 2013 and decreases by 0.5% per year down to 5% for 2023 and beyond for medical and 10.0% for prescription drugs decreasing by 1% to 5% at 2018 and beyond.

## **NOTE H. PENDING LITIGATION**

The actuarial valuation for the retirement system as of July 1, 2014, included consideration for a plan change made in the 2013 Montana legislative session that authorized a reduction in the statutory “guaranteed annual benefit adjustment” (“GABA” – referred to as a cost of living adjustment in other systems), which would apply to current TRS retirees and active members as well as to new hires. The prior GABA was a non-variable 1.5%, compounding, annual benefit adjustment applied each January 1<sup>st</sup> to the benefits of members who had received at least 36 monthly benefit payments as of that date. The 2013 legislative change, codified at 19-20-719(1), MCA, and effective July 1, 2013, is summarized as follows:

- GABA must be decreased to .50% if the most recent actuarial valuation shows that retirement system liabilities are less than 90% funded
- If the most recent actuarial valuation shows that retirement system liabilities are at least 90% funded and the provision of the increase is not projected to cause the system’s liabilities to be less than 85% funded, the GABA must increase from the .5% floor up to 1.5%, as set by the retirement board

In October 2013, litigation was filed by Plaintiffs who were/are active members or retirees of TRS as of July 1, 2013, challenging the constitutionality of the GABA reduction under the “contract rights” and “takings” provisions of the Montana Constitution, and requesting a preliminary injunction. In December, 2013, the Court granted the Plaintiffs’ motion for a preliminary injunction, which prohibited TRS from reducing the GABA pending the Court’s decision in the pending litigation. In January, 2014 and again in January, 2015, the GABA calculated for eligible benefit recipients was 1.5% rather than the reduced rate of 0.5% that would have been calculated pursuant to 19-20-719(1), MCA (2013), but for the preliminary injunction.

Both parties to the litigation filed motions for summary judgment, with briefing concluded in November, 2014. On June 30, 2015, Judge Menahan issued his order on the cross-motions for summary judgment. Judge Menahan determined that: TRS’s GABA benefit is part of TRS’s contract with its members; the reduction of the GABA for current TRS benefit recipients or Tier One members (individuals who became members of TRS before July 1, 2013) is a substantial impairment of the contract; and, the reduction of the GABA effectuated by the 2013 legislation was not reasonable and necessary. Therefore, the reduction of the GABA was a violation of TRS

retirees' and Tier One members' constitutional contract rights. Judge Menahan's order permanently enjoined the retirement system from applying the modified GABA provision to TRS retirees and Tier One members. However, the modified GABA provision can and will be applied to Tier Two TRS members (individuals who first became members of TRS on or after July 1, 2013, or individuals who were TRS members prior to July 1, 2013, but subsequently withdrew (or withdraw) their accumulated contributions and then became (or become) TRS members again on or after July 1, 2013).

Following issuance of Judge Menahan's order, the parties to the lawsuit agreed to settle the case. In the settlement stipulation, Attorney General Tim Fox, on behalf of the State and TRS, agreed not to appeal Judge Menahan's decision and the Plaintiffs agreed to dismiss their pending claim for attorneys' fees. The stipulation for settlement was entered with and signed by the District Court on August 20, 2015. Pursuant to the settlement stipulation, Judge Menahan's order will stand as the final determination of the case.

Because the GABA continued to be calculated and paid by TRS at the 1.5% rate pursuant to the temporary restraining order, all GABA adjustments to TRS benefit recipients have been paid in accordance with the final determination of the lawsuit, and no adjustment of benefits by TRS will be required.

**TEACHERS' RETIREMENT SYSTEM  
A COMPONENT UNIT OF THE STATE OF MONTANA  
REQUIRED SUPPLEMENTARY INFORMATION AND  
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION**

**Schedule of Changes in the Net Pension Liability – TRS Plan**

	<u>2015*</u>	<u>2014*</u>
<b>Total Pension Liability</b>		
Service Cost	73,820,438	77,006,174
Interest	390,555,879	373,456,442
Benefit Changes	-	-
Difference Between Expected and Actual Experience	9,660,152	20,297,029
Changes of Assumptions	(4,670,553)	46,502,421
Benefit Payments	(303,675,300)	(285,182,358)
Refunds of Contributions	<u>(5,368,359)</u>	<u>(4,788,688)</u>
<b>Net change in Total Liability</b>	160,322,257	227,291,020
<b>Total Pension Liability Beginning</b>	<u>5,191,069,342</u>	<u>4,963,778,322</u>
<b>Total Pension Liability Ending (a)</b>	<u>5,351,391,599</u>	<u>5,191,069,342</u>
 <b>Plan Net Position</b>		
Contributions - Employer	87,290,863	83,439,612
Contributions - Member	72,215,797	70,468,354
Contributions - Non-Employer Contributing Entities	43,389,534	64,923,320
Misc. Income	27,297	6,000
Net Investment Income	165,684,953	540,277,362
Benefit Payments	(303,675,300)	(285,182,358)
Administrative Expenses	(2,035,081)	(2,022,636)
Refund of Contributions	(5,368,359)	(4,788,688)
Other	<u>(140,631)</u>	<u>(58,073)</u>
<b>Net Change in Plan Net Position</b>	57,389,073	467,062,894
<b>Plan Net Position - Beginning</b>	3,652,220,265	3,185,064,406
Prior Period Adjustment	<u>(1,223,501)</u>	<u>92,965</u>
<b>Plan Net Position - Ending (b)</b>	<u>3,708,385,838</u>	<u>3,652,220,265</u>
 <b>Net Pension Liability - Ending (a - b)</b>	<u>1,643,005,761</u>	<u>1,538,849,077</u>

*\*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

**Note to RSI - Schedule of Changes in the Net Pension Liability and Schedule of Net Pension Liability**

The total pension liability contained in these schedules was provided by the Systems actuary, Cavanaugh Macdonald Consulting, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Retirement System.

**Schedule of the Net Pension Liability – TRS Plan**

	<u>2015*</u>	<u>2014*</u>
<b>Total Pension Liability</b>	5,351,391,599	5,191,069,342
<b>Plan Net Position</b>	<u>3,708,385,838</u>	<u>3,652,220,265</u>
<b>Net Pension Liability</b>	1,643,005,761	1,538,849,077
<b>Ratio of Plan Net Position to Total Pension Liability</b>	69.30%	70.36%
<b>Covered -Employee Payroll</b>	768,718,699	750,604,063
<b>Net Pension Liability as a Percentage of Covered-Employee Payroll</b>	213.73%	205.01%

*\*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

**Schedule of Investment Returns – TRS Plan**

	<u>2015*</u>	<u>2014*</u>
Annual Money Weighted Rate Return, net of Investment Expense	4.618%	17.18%

*\*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

## Schedule of Employer and Non-Employer Contributing Entities Contributions – TRS Plan

	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>
<b>Actuarially Determined Employer Contributions</b>	\$ 130,680,397	\$ 148,362,932	\$ 130,533,530	\$ 108,993,492	\$ 91,879,263	\$ 90,967,180	\$ 80,997,968	\$ 81,414,325	\$ 40,807,133	\$ 42,768,730
<b>Actual Contributions:</b>										
<b>Employers</b>	87,290,863	83,439,612	74,113,191	72,422,404	72,879,950	72,179,128	66,850,644	67,921,950	61,943,986	58,268,941
<b>Non-Employer Contributing Entities</b>	<u>43,389,534</u>	<u>64,923,320</u>	<u>17,521,347</u>	<u>16,843,766</u>	<u>17,437,366</u>	<u>17,241,610</u>	<u>14,147,324</u>	<u>13,492,375</u>	<u>720,266</u>	<u>693,226</u>
<b>Total</b>	<u>130,680,397</u>	<u>148,362,932</u>	<u>91,634,538</u>	<u>89,266,170</u>	<u>90,317,316</u>	<u>89,420,738</u>	<u>80,997,968</u>	<u>81,414,325</u>	<u>62,664,252</u>	<u>58,962,167</u>
<b>Annual Contribution Deficiency / (Excess)</b>	-	-	38,898,992	19,727,322	1,561,947	1,546,442	-	-	(21,857,119)	(16,193,437)
<b>Covered - Employee Payroll</b>	768,718,699	750,604,063	742,608,987	735,586,961	746,694,434	747,037,330	683,235,462	657,435,444	664,100,000	636,000,000
<b>Actual Contributions as a Percentage of Covered-Employee Payroll</b>	17.00%	19.77%	12.34%	12.14%	12.10%	11.97%	11.86%	12.38%	9.44%	9.27%

### **Note to RSI - Schedule of Employer Contributions**

The actuarially determined employer contributions and amount of those contributions actually made are presented in the schedule.

### **Note to RSI - Actuarial Assumptions – TRS Plan**

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation follows.

### **Note to RSI - Changes of Benefit Terms – TRS Plan**

The following changes to the plan provision were made as identified:

The 2013 Montana Legislature passed HB 377 which provides additional revenue and created a two tier benefit structure. A Tier One Member is a person who first became a member before July 1, 2013 and has not withdrawn their member's account balance. A Tier Two Member is a person who first becomes a member on or after July 1, 2013 or after withdrawing their member's account balance, becomes a member again on or after July 1, 2013.

The GABA for Tier 1 members has also been modified as follows:

- If the most recent actuarial valuation of the System shows that the funded ratio is less than 90%, then the maximum increase that can be granted is 0.50%.
- If the funded ratio is at least 90% and the increase is not projected to cause the System's funded ratio to be less than 85%, an increase can be granted that is greater than 0.50% but not more than 1.50%.

The second tier benefit structure for members hired on or after July 1, 2013 is summarized below.

- (1) **Final Average Compensation:** average of earned compensation paid in five consecutive years of full-time service that yields the highest average
- (2) **Service Retirement:** Eligible to receive a service retirement benefit if the member has been credited with at least five full years of creditable service and has attained the age of 60; or has been credited with 30 or more years of full-time or part-time creditable service and has attained age 55
- (3) **Early Retirement:** Eligible to receive an early retirement allowance if a member is not eligible for service retirement but has at least five years of creditable service and attained age 55
- (4) **Professional Retirement Option:** if the member has been credited with 30 or more years of service and has attained the age of 60 they are eligible for an enhanced allowance equal to 1.85% of average final compensation times all service at retirement . Otherwise, the multiplier used to calculate the retirement allowance will be equal to 1.67%

- (5) **Annual Contribution:** 8.15% of member's earned compensation
- (6) **Supplemental Contribution Rate:** On or after July 1, 2023, the TRS Board may require a supplemental contribution up to 0.5% if the following three conditions are met:
- a. The average funded ratio of the System based on the last three annual actuarial valuations is equal to or less than 80%; and
  - b. The period necessary to amortize all liabilities of the System based on the latest annual actuarial valuation is greater than 20 years; and
  - c. A State or employer contribution rate increase or a flat dollar contribution to the Retirement System Trust fund has been enacted that is equivalent to or greater than the supplemental contribution rate imposed by the TRS Board.
- (7) **Disability Retirement:** A member will not be eligible for a disability retirement if the member is or will be eligible for a service retirement on the date of termination
- (8) **Guaranteed Annual Benefit Adjustment (GABA):**
- a. If the most recent actuarial valuation shows that Retirement System liabilities are at least 90% funded and the provision of the increase is not projected to cause the System's liabilities to be less than 85% funded, the GABA may increase from the 0.5% floor up to 1.5%, as set by the Board.

HB 377 increased revenue from the members, employers and the State as follows:

- Annual State contribution equal to \$25 million paid to the System in monthly installments.
- One-time contribution payable to the Retirement System by the trustees of a school district maintaining a retirement fund. The one-time contribution to the Retirement System shall be the amount earmarked as an operating reserve in excess of 20% of the adopted retirement fund budget for the fiscal year 2013. The amount received was \$22 million in FY 2014.
- 1% supplemental employer contribution. This will increase the current employer rates:
  - School Districts contributions will increase from 7.47% to 8.47%
  - The Montana University System and State Agencies will increase from 9.85% to 10.85%.
  - The supplemental employer contribution will increase by 0.1% each fiscal year for fiscal year 2014 thru fiscal year 2024. Fiscal years beginning after June 30, 2024 the total supplemental employer contribution will be equal to 2%.
- Members hired prior to July 1, 2013 (Tier 1) under HB 377 are required to contribute a supplemental contribution equal to an additional 1% of the member's earned compensation.
- Each employer is required to contribute 9.85% of total compensation paid to all re-employed TRS retirees employed in a TRS reportable position to the System.

#### **Note to RSI - Changes in Actuarial Assumptions and Methods – TRS Plan**

The following changes to the actuarial assumptions were adopted in 2014:

- Assumed rate of inflation was reduced from 3.50% to 3.25%
- Payroll Growth Assumption was reduced from 4.50% to 4.00%
- Assumed real wage growth was reduced from 1.00% to 0.75%
- Investment return assumption was changed from net of investment and administrative expenses to net of investment expenses only.

- Mortality among contributing members, service retired members, and beneficiaries was updated to the following:

For Males: RP 2000 Healthy Annuitant Mortality Table for ages 50 and above and the RP 2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back four years, with mortality improvements projected by Scale BB to 2018.

For Females: RP 2000 Healthy Annuitant Mortality Table for ages 50 and above and the RP 2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back two years, with mortality improvements projected by Scale BB to 2018.

- Mortality among disabled members was updated to the following:

For Males: RP 2000 Disabled Mortality Table for Males, set forward one year, with mortality improvements projected by Scale BB to 2018.

For Females: RP 2000 Disabled Mortality Table for Females, set forward five years, with mortality improvements projected by Scale BB to 2018.

**Note to RSI - Method and assumptions used in calculations of actuarially determined contributions – TRS Plan**

Actuarial cost method	Entry age
Amortization method	Level percentage of pay, open
Remaining amortization period	28 years
Asset valuation method	4-year smoothed market
Inflation	3.25 percent
Salary increase	4.00 to 8.51 percent, including inflation for Non-University Members and 5.00% for University Members;
Investment rate of return	7.75 percent, net of pension plan investment expense, and including inflation

**Schedule of Proportionate Share of the Net Pension Liability - TRS as Employer of PERS Plan**

	<u>2015*</u>
TRS' proportion of the net pension liability	0.081024%
TRS' proportionate share of the net pension liability	\$ 1,009,567
State of Montana's proportionate share of the net pension liability associated with the TRS	\$ 0
Total	\$ 1,009,567
TRS' covered-employee payroll	\$ 1,208,079
TRS' proportionate share of the net pension liability as a percentage of its covered-employee payroll	83.6%
Plan fiduciary net position as a percentage of the total pension liability	79.9%

*\*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available*

**Schedule of Contributions - TRS as Employer of PERS Plan**

	<u>2015*</u>
Contractually required contributions	\$ 75,657
Contributions in relation to the contractually required contributions	\$ 75,657
Contribution deficiency (excess)	\$ 0
Employer's covered-employee payroll	\$ 1,208,079
Contributions as a percentage of covered-employee payroll	6.3%

*\*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available*

## Note to RSI – PERS Plan

**Changes in Plan Provisions:** The following changes in plan provisions have been made since the prior measurement date:

- None

**Changes of assumptions:** The following changes in assumptions or other inputs that affected the measurement date have been made since the prior measurement date:

- None

**Method and assumptions:** The following actuarial methods and assumptions were used to determine actuarial contribution rates reported in that schedule:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, open
Remaining amortization period	29.3 years
Asset valuation method	4-year smoothed market
Salary increase	General Wage Growth - 4.00% (including inflation at 3.00%) Merit – 0% - 6%
Investment rate of return	7.75 percent, net of pension plan investment expense, and including inflation
Administrative Expenses as a Percentage of Payroll	0.27%
Benefit Adjustments	GABA – 3.0% or 1.5% for new hires on or after July 1, 2007, after 1 year

**Other Postemployment Benefits Plan Information**  
**Schedule of Funding Progress**  
(All dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded (UAAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll ( c )	UAAL as % of covered Payroll ((b-a/c)
12/31/2007	-	\$ 449,321	\$ 449,321	0%	519,969	86.41%
12/31/2009	-	\$ 357,664	\$ 357,664	0%	526,794	67.89%
12/31/2011	-	\$ 361,053	\$ 361,053	0%	558,646	64.63%
12/31/2013	-	\$ 493,412	\$ 493,412	0%	828,985	59.52%

**Note to RSI - OPEB**

The funded status of the TRS allocation of the plan as of December 31, 2013, the most recent valuation date was as follows:

Actuarial accrued liability (AAL)	\$493,412
Actuarial value of plan assets	\$ 0
Unfunded actuarial accrued liability (UAAL)	\$493,412
Funded ratio (actuarial value of plan assets/AAL)	0
TRS Covered payroll (active plan members)	\$828,985
UAAL as a percentage of covered payroll	59.52%

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. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Actuarial calculations reflect a long-term perspective. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Projections of benefits for financial reporting progress are based on the substantive plan (the plan as understood by the employer and the 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 projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

**TEACHERS' RETIREMENT SYSTEM  
A COMPONENT UNIT OF THE STATE OF MONTANA  
SUPPORTING SCHEDULES / SUPPLEMENTARY INFORMATION  
FISCAL YEARS ENDED JUNE 30, 2015**

**SCHEDULE OF ADMINISTRATIVE EXPENSES**

Expenses for the administration of the plan, excluding compensated absences, depreciation and amortization, are budgeted and approved by the TRS Board. The administrative costs of the TRS are financed through realized investment income. The expenses, less amortization of intangible assets, may not exceed 1.5% of retirement benefits paid. Administrative expenses for the fiscal year ended June 30, 2015 are outlined below:

	<u><b>2015</b></u>
<b>Administrative Expenses:</b>	
Personnel Services:	
Salaries	\$ 936,684
Other Compensation	2,450
Employee Benefits	260,336
Total Budgeted Personal Services	\$ 1,199,469
Operating Expenses:	
Contracted Services	\$ 456,583
Supplies & Material	59,009
Communications	97,664
Travel	22,833
Rent	57,957
Repair & Maintenance	42,429
Other Expenses	62,495
Total Budgeted Operating Expenses	\$ 798,970
Non-Budgeted Expenses:	
Compensated Absences	\$ 8,610
Depreciation	28,031
Amortization	-
Total Non-Budgeted Expenses	\$ 36,641
<b>Total Administrative Expenses</b>	<b>\$ 2,035,081</b>

## SCHEDULE OF INVESTMENT EXPENSES

as of June 30, 2015

Investment	BOI	Custodial Bank	External Managers	Other	Total
Short-term Investment Pool	\$ 17,976	\$ 6,526	N/A	\$ 119,618	\$ 144,120
Retirement Funds Bond Pool	\$ 245,503	\$ 65,721	\$ 566,935	\$ 2,178	\$ 880,336
Montana Domestic Equity Pool	\$ 247,875	\$242,545	\$ 3,446,052	\$1,411,984	\$ 5,348,456
Montana International Pool	\$ 213,477	\$ 65,236	\$ 1,361,124	\$ 187,598	\$ 1,827,436
Montana Private Equity Pool	\$ 350,122	\$ 35,180	\$ 5,905,020	\$1,314,312	\$ 7,604,633
Montana Real Estate Pool	\$ 223,683	\$ 29,836	\$ 3,880,735	\$ 374,099	\$ 4,508,353
Other*		\$ 2,222			\$ 2,222
<b>Totals</b>	<b>\$1,298,636</b>	<b>\$447,226</b>	<b>\$15,159,866</b>	<b>\$3,409,788</b>	<b>\$20,315,557</b>

\*Expense associated with the calculation of Money Weighted Return on Investment for GASB 67

## SCHEDULE OF PAYMENTS TO CONSULTANTS

Costs included in the table below are a result of administrative expenses, as well as several costs associated with the M-Trust project (Intangible Assets - Capital Work in Progress)

	<u>2015</u>
Actuarial Services	\$ 161,500
Consulting Services	86,154
Legal Services	13,565
Medical Evaluations	350
Information Technology Services	<u>818,251</u>
<b>Total Consultant Payments</b>	<b>\$ <u>1,079,820</u></b>

# **INVESTMENT SECTION**

**REPORT ON INVESTMENT ACTIVITIES**

**INVESTMENT POLICY**

**INVESTMENT RESULTS**

**INVESTMENT ASSET ALLOCATION AND SUMMARY**

**LIST OF TEN LARGEST HOLDINGS IN PORTFOLIOS**

**INVESTMENT MANAGEMENT FEES**

# MONTANA BOARD OF INVESTMENTS

Department of Commerce

Street Address:  
2401 Colonial Drive, 3<sup>rd</sup> Floor  
Helena, MT 59601

Mailing Address:  
P.O. Box 200126  
Helena, MT 59620-0126



Phone: 406/444-0001  
Facsimile: 406/449-6579  
Rateline: 406/444-3557  
Website: [www.investmentmt.com](http://www.investmentmt.com)

## **TRS Annual Report Investment Letter** For the fiscal year ended 6/30/15

The fiscal year 2015 return of 4.60% represented the sixth consecutive year of positive returns. All asset classes performed well this year with the exception of international equities which suffered a negative return in the face of economic growth challenges in many countries and a strong dollar which acts to dilute non-US returns. The annualized three year plan return remains high at 11.48%, while the five year return also remains high at 11.57%. The trailing ten year and since-inception returns are within long-term expectations at 6.6% and 7.8% respectively. Relative to a public fund peer universe as reported by our investment consultant, the relative returns of the plan ranked in the first quartile over the various annualized periods for one to seven years, and the top half over ten years.

The returns by asset class this fiscal year illustrate the importance of asset allocation and diversification principles. Contrary to fiscal 2014 which saw double-digit returns from every asset class except fixed income, this year the returns by asset class were more normal and certainly subdued relative to the prior year. Only one asset class, real estate, posted a double digit return. The positive, yet modest return this fiscal year of 4.60% was supported by a mix of performance ranging from 7.35% in domestic stocks, our largest allocation, to negative 4.20% for international equity. As in recent prior years, international stocks were pulled down by their emerging market component. These markets have suffered the most from slowing economic growth, largely due to the more resource-driven nature of their economies and the weak commodity price trends we have seen. The bond pool return of only 2.29% represented a decline versus the prior year and was hurt by the relative weakness seen in corporate credit performance, as well as the sustained level of low interest rates in general which has detracted from the income component of returns. Private equity posted a return of 8.43%, or about half the fiscal 2014 level. Still, this asset class has provided the highest absolute return over the past ten years. Aside from an absolute attractive level of long-term return, this asset pool itself is highly diversified and provides an element of diversification benefit at the overall plan level. The real estate pool continued producing strong returns with this year's return of 13.11%. The five year annualized return for the real estate pool is now 12.14%, double that of last year's trailing five year number and reflective of the general lag in performance versus other risk assets since the recovery from the recession and financial crisis began.

The asset allocation changes during the fiscal year were minimal. Sales of domestic equity and private equity were made while net transactions in the international equity pool were flat. This activity combined with market performance led to a slight decrease in total equity exposure to 66.9% for TRS. Bonds were purchased under our rebalancing discipline and ended the year at a 22.3% weight in the plan, near the bottom of the 22-30% range for this asset class. Sales from the real estate pool were also made as distributions remained heavy from the underlying investments, generating excess liquidity to be used elsewhere. The allocation here ended the year at 8.8%. Overall, the allocation mix remains heavily equity-centric in character, reflecting the long term return advantage of this asset class, balanced by asset classes providing diversification benefits, specifically fixed income and real estate.

At its August meeting, the Board of Investments reaffirmed the current asset allocation ranges for the pension plans after reviewing staff's recommendation which included an analysis of the net cash needed by the plans. The fact there is a benefit outflow in excess of the contribution inflow and net income from assets is not a surprise, and in fact is to be expected of mature pension plans as the proportion of retired beneficiaries increases relative to active employees. In summary, the analysis indicates this net cash need from the investment assets is manageable, even though there has been and will continue to be a marginal deterioration of the net cash flows going forward. Though this situation may at some point have an impact on the asset allocation mix and implied investment returns, it is not an immediate investment issue. The naysayers of defined benefit pensions need to respect the fact that the long-term health of the plans requires discipline in contribution and benefit policies and practices over time, in which case prudent investment management of the assets will do its share of the job.

As for the current investment environment, the developed country equity markets have suffered in the last couple of months since mid-summer, while emerging market stocks have seen a continuation of weak returns that has been in place for even longer. As a result the total returns of the pension plans have turned slightly negative so far in fiscal 2016. Part of the current market anxiety can be blamed on concerns over the slowing, but still positive, growth of the Chinese economy given its now larger share of the global economy. At the same time, given improvement in our economy, there is a growing concern over the eventual increase in short-term interest rates in the US as the Federal Reserve contemplates liftoff from the current level near zero.

Despite the recent stock market behavior, the overall investment backdrop remains favorable in my view. Even if the Fed increases short-term rates in the US, interest rate levels overall should remain low by historical standards. Further, the US economy appears resilient with contributions to growth coming from most sectors, particularly the private sectors such as personal consumption, housing, and business investment. The risk of recession appears low despite international headwinds, and corporate profit growth is expected to remain positive. Inflation remains muted in the US, and the recent drop in energy prices is expected to be a net positive for most companies and consumers.

In closing, I would like to emphasize the long-term context in which pension plan assets must be managed. The current concerns cited in the financial media are relatively minor in the context of recent decades of global economic and capital market measures. And indeed a decades-long

perspective is necessary in managing a system designed to provide long term retirement security. The outlook is always clouded, but the global investment environment, especially in the US, continues to present opportunities that will provide the long-term growth and associated investment returns needed by Montana's pension plans.

Respectfully submitted,

*/s/ Clifford A. Sheets*

Clifford A. Sheets, CFA  
Chief Investment Officer  
Montana Board of Investments

## Investment Policy

The Montana Board of Investments (BOI) manages the State's Unified Investment Program, which includes the TRS plan investments as required by Section 19-20-501, Montana Code Annotated. The Unified Investment Program is required by law to operate under the "prudent expert principle", defined as: 1) discharging its duties with the care, skill, prudence, and diligence that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of like character and like aims; 2) diversifying the holdings of each fund to minimize the risk of loss and maximize the rate of return; and 3) discharging its duties solely in the interest of and for the benefit of the funds managed.

## Investment Results

### TRS Rates of Returns\*

	FY 2015	3-Year	5-Year	10-Year
Short-term Investment Pool	0.14%	0.19%	0.24%	1.80%
1 Mo LIBOR Index	0.17%	0.18%	0.21%	1.64%
Retirement Funds Bond Pool	2.29%	3.03%	4.76%	5.38%
Barclays US Agg Bond Index	1.86%	1.83%	3.35%	4.44%
Montana Domestic Equity Pool	7.35%	17.90%	17.35%	7.77%
S&P 1500 Comp Index	7.31%	17.47%	17.43%	8.10%
Montana International Equity Pool	-4.20%	10.06%	8.05%	4.65%
International Custom Benchmark	-4.97%	9.68%	7.92%	5.56%
Montana Private Equity Pool	8.43%	12.43%	13.92%	10.56%
S&P 1500 +4% (Daily)	11.31%	21.47%	21.43%	12.10%
Montana Real Estate Pool	13.11%	11.08%	12.14%	2.69%
Total Portfolio	4.60%	11.48%	11.57%	6.59%

\* A time-weighted rate of return

## Investment Summary and Asset Allocation

### TRS Cash Equivalent and Investment Portfolio June 30, 2015

<u>Investment</u>	<u>Book Value</u>	<u>Fair Value</u>
Short-term Investment Pool	\$ 70,298,226	\$ 70,298,226
Retirement Funds Bond Pool	755,614,080	819,646,514
MT Domestic Equities Pool	396,477,203	1,456,908,955
MT International Equities Pool	360,489,693	609,168,891
MT Private Equities Pool	173,722,719	392,552,846
MT Real Estate Pool	271,099,988	324,225,760
Other Asset Backed Securities	608,874	608,874
Total	\$ <u>2,028,310,783</u>	\$ <u>3,673,140,066</u>

Investment Pool Holdings at June 30, 2015

<b><u>Ten Largest Bond Holdings (RFBP):</u></b>	<b><u>Fair Value</u></b>
US TREASURY N/B	455,273,137
COMM MORTGAGE TRUST	58,534,532
FREDDIE MAC	51,861,497
FANNIE MAE	43,586,635
WF RBS COMMERCIAL MORTGAGE TRU	37,980,657
NEW RESIDENTIAL MORTGAGE LOAN	28,162,973
GOVERNMENT NATIONAL MORTGAGE A	23,863,009
GOLDMAN SACHS GROUP INC	20,098,382
JPMORGAN CHASE + CO	19,167,863
CITIGROUP INC	18,926,654

<b><u>Ten Largest Domestic Public Equity Holdings (MDEP):</u></b>	<b><u>Fair Value</u></b>
BLACKROCK EQUITY INDEX FUND	2,246,496,226
DIMENSIONAL FUND ADVISORS INC	78,634,265
BLACKROCK MIDCAP EQUITY IND FD	72,645,604
APPLE INC	31,432,258
MICROSOFT CORP	19,727,147
WELLS FARGO + CO	17,004,951
JOHNSON + JOHNSON	13,500,452
LAM RESEARCH CORP	12,733,878
OCCIDENTAL PETROLEUM CORP	11,829,284
FACEBOOK INC A	11,270,722

<b><u>Ten Largest International Equity Holdings (MTIP):</u></b>	<b><u>Fair Value</u></b>
BLACKROCK ACWI EX US SUPERFUND	1,057,357,129
DFA INTERNATIONAL SMALL COMPAN	80,996,572
BLACKROCK MSCI EM MKT FR FD B	33,765,783
BLACKROCK ACWI EX US SMALL CAP	28,963,245
TEVA PHARMACEUTICAL SP ADR	6,433,035
EAFE STOCK PERFORMANCE INDEX	5,730,335
BAIDU INC SPON ADR	4,859,941
TAIWAN SEMICONDUCTOR SP ADR	4,721,409
ROYAL DUTCH SHELL PLC A SHS	4,568,769
NOVARTIS AG REG	4,347,729

A complete list of the portfolio holdings is available upon request from the Montana BOI.

## Investment Management Fees

The Legislature sets the maximum management fee the BOI may charge the accounts it manages. The maximum fee is set at the aggregate level and at the beginning of each fiscal year. The BOI allocates the aggregate fees across the Pools. Custodial bank fees are paid by a statutory appropriation from the state general fund. The BOI allocates custodial bank fees across the Pools and accounts invested outside the Pools and deposits the proceeds in the general fund. The State Treasurer then pays the monthly custodial bank fees from the general fund. External manager fees are paid directly from the accounts they manage. TRS investment management fees charged each Pool are shown below:

### Schedule of Investment Expenses

		Custodial	External		
Investment	BOI	Bank	Managers	Other	Total
Short-term Investment Pool	\$ 17,976	\$ 6,526	N/A	\$ 119,618	\$ 144,120
Retirement Funds Bond Pool	\$ 245,503	\$ 65,721	\$ 566,935	\$ 2,178	\$ 880,336
Montana Domestic Equity Pool	\$ 247,875	\$242,545	\$ 3,446,052	\$1,411,984	\$ 5,348,456
Montana International Pool	\$ 213,477	\$ 65,236	\$ 1,361,124	\$ 187,598	\$ 1,827,436
Montana Private Equity Pool	\$ 350,122	\$ 35,180	\$ 5,905,020	\$1,314,312	\$ 7,604,633
Montana Real Estate Pool	\$ 223,683	\$ 29,836	\$ 3,880,735	\$ 374,099	\$ 4,508,353
Other*		\$ 2,222			\$ 2,222
<b>Totals</b>	<b>\$1,298,636</b>	<b>\$447,226</b>	<b>\$15,159,866</b>	<b>\$3,409,788</b>	<b>\$20,315,557</b>

# **ACTUARIAL SECTION**

## **ACTUARY'S CERTIFICATION LETTER**

### **EXHIBITS**

- 1. SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**
- 2. SCHEDULE OF ACTIVE MEMBER VALUATION DATA**
- 3. SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS**
- 4. SOLVENCY TEST**
- 5. ANALYSIS OF FINANCIAL EXPERIENCE**
- 6. PROVISIONS OF GOVERNING LAW**
- 7. SCHEDULE OF FUNDING PROGRESS**
- 8. SCHEDULE OF CONTRIBUTIONS FROM EMPLOYERS AND OTHER CONTRIBUTING ENTITIES**

Teachers' Retirement Board  
 State of Montana  
 1500 Sixth Avenue  
 Helena, MT 59620-0139

Members of the Board:

We have completed the annual valuation of the Teachers' Retirement System of the State of Montana as of July 1, 2015. The purpose of this valuation is to determine the financial status of the Retirement System. To achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by MCA 19-20-201.

The purpose of this letter is to provide the Actuarial Section, the Schedule of Funding Progress, and the Schedule of Contributions from the Employers and Other Contributing Entities for the System's Comprehensive Annual Financial Report. All results prior to July 1, 2009 were determined by the prior actuarial firm.

The funding objective of the System is to establish contribution rates that will tend to remain level as a percentage of payroll. The contribution rates are:

History of Legislated Contributions  
 (as a Percent of Pay)

**School District and Other Employers**

	<u>Members</u>	<u>Employers</u>	<u>General Fund</u>	<u>Total</u>
Prior to July 1, 2007	7.15%	7.47%	0.11%	14.73%
July 1, 2007 to June 30, 2009	7.15%	7.47%	2.11%	16.73%
July 1, 2009 to June 30, 2013	7.15%	7.47%	2.49%	17.11%
July 1, 2013 to June 30, 2014	8.15%	8.47%	2.49%	19.11%
July 1, 2014 to June 30, 2015	8.15%	8.57%	2.49%	19.21%
July 1, 2015 to June 30, 2016	8.15%	8.67%	2.49%	19.31%
July 1, 2016 to June 30, 2017	8.15%	8.77%	2.49%	19.41%
July 1, 2017 to June 30, 2018	8.15%	8.87%	2.49%	19.51%
July 1, 2018 to June 30, 2019	8.15%	8.97%	2.49%	19.61%
July 1, 2019 to June 30, 2020	8.15%	9.07%	2.49%	19.71%
July 1, 2020 to June 30, 2021	8.15%	9.17%	2.49%	19.81%
July 1, 2021 to June 30, 2022	8.15%	9.27%	2.49%	19.91%
July 1, 2022 to June 30, 2023	8.15%	9.37%	2.49%	20.01%
July 1, 2023 to June 30, 2024	8.15%	9.47%	2.49%	20.11%

**State and University Employers**

	<u>Members</u>	<u>Employers</u>	<u>General Fund</u>	<u>Total</u>
Prior to July 1, 2007	7.15%	7.47%	0.11%	14.73%
July 1, 2007 to June 30, 2009	7.15%	9.47%	0.11%	16.73%
July 1, 2009 to June 30, 2013	7.15%	9.85%	0.11%	17.11%

July 1, 2013 to June 30, 2014	8.15%	10.85%	0.11%	19.11%
July 1, 2014 to June 30, 2015	8.15%	10.95%	0.11%	19.21%
July 1, 2015 to June 30, 2016	8.15%	11.05%	0.11%	19.31%
July 1, 2016 to June 30, 2017	8.15%	11.15%	0.11%	19.41%
July 1, 2017 to June 30, 2018	8.15%	11.25%	0.11%	19.51%
July 1, 2018 to June 30, 2019	8.15%	11.35%	0.11%	19.61%
July 1, 2019 to June 30, 2020	8.15%	11.45%	0.11%	19.71%
July 1, 2020 to June 30, 2021	8.15%	11.55%	0.11%	19.81%
July 1, 2021 to June 30, 2022	8.15%	11.65%	0.11%	19.91%
July 1, 2022 to June 30, 2023	8.15%	11.75%	0.11%	20.01%
July 1, 2023 to June 30, 2024	8.15%	11.85%	0.11%	20.11%

In addition to these rates, the System receives \$25 million annually payable on July 1<sup>st</sup> each year.

Finally, employers are now required to contribution 9.85% of total compensation plus the supplemental contribution required under 19-20-609, MCA, of re-employed retirees who are employed in TRS covered positions. Pursuant to MCA 19-20-609, the amount shall increase by 1.00% for fiscal year 2014 and increase by 0.10% each fiscal year through 2024 until the total employer contribution is equal to 11.85% of re-employed retiree compensation.

The July 1, 2015 actuarial valuation indicates that the current employer rate of 11.16% including the anticipated increases in the employer rate is sufficient to pay the System's normal cost and to amortize the System's Unfunded Actuarial Accrued Liability (UAAL) over a 26-year period. The normal cost of 9.21% of pay consists of 1.06% employer contributions and 8.15% employee contributions. The employer rate also includes 0.28% of payroll which is a load for administrative expenses that occur during the year. The remaining contribution of 9.82% plus the previously mentioned cash contributions go toward funding the amortization of the UAAL, which is \$1,741.5 million as of July 1, 2015.

A funding measurement that may be considered is the funding ratio of the Actuarial Accrued Liability to Assets. This ratio is shown in the Schedule of Funding Progress. As the actuarial experience varies from year to year, the funding ratio will reflect actuarial gains and losses. The Actuarial Accrued Liability represents the portion of the total plan benefits and expenses which is not provided for by future Normal Cost contributions.

The actuarial assumptions used in our 2015 actuarial valuation are summarized in Exhibit 1. Adoption dates vary by assumption and are provided in Exhibit 1.

In preparing our actuarial valuation reports, we relied, without audit, on the financial statements prepared by the staff of the System. We also relied upon the employee and beneficiary data provided to us by the staff. We compared the data for the July 1, 2015 actuarial valuation with corresponding information from the prior valuation and tested for missing or incomplete items, such as birth dates and hire dates. Based on these tests, we believe the data to be sufficient and reliable for the purposes of our calculations. It should be noted that if any data or other information is inaccurate or incomplete, our calculations might need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

The assumptions represent our best estimate of future conditions affecting the System, and we believe they are reasonably related to the past experience of the System. Nevertheless, the emerging costs of the System will vary from those presented in our report to the extent that actual experience differs from that projected by the actuarial assumptions. Gains or losses in future experience may result in changes in future contribution rates. The current actuarial asset method smoothed investment gains and losses over a four year period.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

### Funding and Benefits Policy

The Teachers' Retirement System has adopted a Funding and Benefits Policy to provide general guidelines to help ensure decisions are made based on sound, consistent, and thoroughly examined criteria. The Funding and Benefits Policy includes guidance on the following topics:

1) Additional Funding

a) The Funding and Benefits Policy states:

- “1. If the amortization period is greater than 30 years, the actuary will recommend the single contribution rate increase that can reasonably expect to fully amortize the UAAL over a closed 30-year period effective July 1, following the next regular legislative session.
2. If the amortization period is less than 30 years, but greater than 0, and it is projected to continue to decline over the remainder of the closed period, the actuary will not recommend a change in the statutory contribution rates.
3. If the amortization period is less than 30 years, but has increased over prior valuations and is projected to continue to grow, the actuary will recommend a contribution rate increase that is reasonably expected to reverse the recent trend and reestablish a closed amortization period equal to that of the last valuation.”

2) Analysis: The amortization period as of July 1, 2015 is 26 years based on actuarial assets and 23 years based on market assets. Assuming experience follows the actuarial assumptions, the amortization period is projected to decline. Therefore additional funding is not necessary at this time.

### 3) Ultimate Goal

- a) The Funding and Benefits Policy states: “It is the desire of the Board to fully fund the System. However, until the System becomes fully funded, any unfunded will be amortized over a closed period of no more than 30 years and funded as a level percent of pay. At such time as the System becomes fully funded and has a stabilization reserve of at least 10% of the actuarial accrued liability, the allowed amortization period for any subsequent unfunded liabilities will be reduced to a closed period of not greater than 20 years.”
- b) Analysis: The amortization period on an actuarial value of asset basis is 26 years and is anticipated to decline. This is within the parameters of ultimate goal of the Retirement System.

### 4) Benefit Enhancements

- a) The Funding and Benefits Policy states: “Any recommendation for a benefit enhancement must include recommendations for necessary additional funding or other benefit reduction to cover any increase in normal cost arising from the recommended enhancement and to amortize any increase in the unfunded actuarial accrued liabilities arising from the recommended enhancement over a period not to exceed 25 years.

The Board will determine its position with respect to supporting or opposing legislation, on a case-by-case basis, and will apply this policy, actuarial funding standards, and other industry-standard information and resources if finds persuasive, as decision guides. The Board may not support legislation to enhance benefits if the funded ratio is less than 85%, and the amortization period is greater than 20 years.”

- b) Analysis: Since the funded ratio at July 1, 2015 of 67.46% is below 80% the Board’s Funding and Benefits policy does not currently support enhanced benefits.

### Assumption Changes

There have been no assumption changes since the previous valuation.

### Benefit Changes

There have been no benefit changes since the previous valuation.

## Contribution Changes

An employer supplemental contribution of 1% of compensation is required beginning in fiscal year 2014 which will increase by 0.10% each subsequent fiscal year through 2024. For fiscal years beginning after June 30, 2024, the supplemental employer contribution will equal 2.00% of compensation.

## Method Changes

Since the previous valuation we have included the recommendations in the Actuarial Audit performed by Gabriel Roeder Smith & Company in regard to the following:

- Correctly reflect the proportion of members that are assumed to take a refund of contributions upon termination and appropriately reflect the three year COLA deferral period for Tier 2 Members.
- The 0.63% load applied to the projected retirement benefits of the university members “to account for larger than average annual compensation increases observed in the years immediately preceding retirement” should not be applied to benefits expected to be paid to university members on account of death, disability and termination (prior to retirement eligibility.)
- The actuarial valuation should be updated so that the assumed rate of retirement for university members at age 60 is 8.50% as stated in the actuarial valuation report.
- The actuarial valuation should be updated to reflect the fact that vested terminations are only covered by the \$500 death benefit for the one year following their termination and, once again when the terminated member commences their deferred retirement annuity (they are not covered during the deferral period). Additionally, only the portion of the terminated members that are assumed to “retain membership in the System” should be covered by the \$500 death benefit after termination.

## Impact of Changes

The following table summarizes how experience has changed the UAAL since the July 1, 2014 Actuarial Valuation.

### Changes in the Unfunded Actuarial Accrued Liability (UAAL)

(In millions)

July 1, 2014 Valuation UAAL	\$ 1,793.6
Expected Increase	<u>2.2</u>
Expected July 1, 2015 UAAL	\$ 1,795.8
Experience Loss on Actuarial Liabilities	\$ 11.8
Experience Gain on Actuarial Assets	(61.4)
Assumption & Method Changes	(4.7)
Plan Changes	<u>0.0</u>
Total Gain	<u>\$ (54.3)</u>
July 1, 2015 Valuation UAAL	\$ 1,741.5

HB 377 temporarily reduced in the Guaranteed Annual Benefit Adjustment (GABA) for members hired prior to July 1, 2013 until certain funding parameters are met. This law was challenged in the Courts. In the initial Court Case, the Judge issued a Summary Judgment in favor of the plaintiffs. The Attorney General's Office, on behalf of the State and TRS, entered into a settlement agreement not to appeal the decision to a higher court. Therefore, members hired prior to July 1, 2013 will continue to receive 1.50 GABA regardless of the funding condition of the System.

The second tier benefit structure for members hired on or after July 1, 2013 is summarized below.

- (1) Final Average Compensation: average of earned compensation paid in five consecutive years of full-time service that yields the highest average
- (2) Service Retirement: Eligible to receive a service retirement benefit if the member has been credited with at least five full years of creditable service and has attained the age of 60; or has been credited with 30 or more years of full-time or part-time creditable service and has attained age 55
- (3) Early Retirement: Eligible to receive an early retirement allowance if a member is not eligible for service retirement but has at least five years of creditable service and attained age 55
- (4) Professional Retirement Option: if the member has been credited with 30 or more years of service and has attained the age of 60 they are eligible for an enhanced allowance

- equal to 1.85% of average final compensation times all service at retirement. Otherwise, the multiplier used to calculate the retirement allowance will be equal to 1.67%
- (5) Annual Contribution: 8.15% of member's earned compensation
  - (6) Supplemental Contribution Rate: On or after July 1, 2023, the TRS Board may require a supplemental contribution up to 0.5% if the following three conditions are met:
    - a. The average funded ratio of the System based on the last three annual actuarial valuations is equal to or less than 80%; and
    - b. The period necessary to amortize all liabilities of the System based on the latest annual actuarial valuation is greater than 20 years; and
    - c. A State or employer contribution rate increase or a flat dollar contribution to the Retirement System Trust fund has been enacted that is equivalent to or greater than the supplemental contribution rate imposed by the TRS Board.
  - (7) Disability Retirement: A member will not be eligible for a disability retirement if the member is or will be eligible for a service retirement on the date of termination
  - (8) Guaranteed Annual Benefit Adjustment (GABA):
    - a. If the most recent actuarial valuation shows that Retirement System liabilities are at least 90% funded and the provision of the increase is not projected to cause the System's liabilities to be less than 85% funded, the GABA may increase from the 0.5% floor up to 1.5%, as set by the Board.

## Contributions

As shown in the "History of Legislated Contributions" at the beginning of this section, the employer contributions from the General Fund have increased to 2.49% of pay as of July 1, 2009. The supplemental contribution to ensure university member benefits are funded by university employers was increased from 4.04% to 4.72% of Optional Retirement Plan (ORP) member pay at July 1, 2007. The valuation that determined the 4.72% contribution rate of ORP member pay was based on the valuation completed as of July 1, 2006. The most recent ORP valuation completed as of July 1, 2014 indicated an increase is needed in the supplemental contribution rate from 4.72% to 9.75% of ORP member compensation rate.

MCA 19-20-608 and MCA 19-20-609 dictate that employers and members are required to make supplemental contributions if the funded ratio of the System is less than 90%. Since the funded ratio is currently 67.46%, Tier One Members are required to contribute an additional 1% of compensation. The individual employers are required to contribute an additional 1% of compensation. The employer contribution shall increase by 0.1% each year following July 1, 2013 until the total employer supplemental contribution is equal to 2% of compensation.

MCA 19-20-607 requires the State to contribute \$25 million annually each July 1<sup>st</sup> to the System.

MCA 19-20-605 requires each employer to contribute 9.85% of total compensation paid to all re-employed TRS retirees employed in a TRS reportable position. Pursuant to MCA 19-20-609, this amount shall increase by 1.00% for fiscal year 2014 and increase by 0.10% each fiscal year through 2024 until the total employer contribution is equal to 11.85% of re-employed retiree compensation.

The following exhibits were prepared by the actuary and provide further information.

Exhibit 1	Summary of Actuarial Assumptions and Methods
Exhibit 2	Schedule of Active Member Valuation Data
Exhibit 3	Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
Exhibit 4	Solvency Test
Exhibit 5	Analysis of Financial Experience
Exhibit 6	Provisions of Governing Law
Exhibit 7	Schedule of Funding Progress
Exhibit 8	Schedule of Contributions from Employers and other Contributing Entities

Edward A. Macdonald and Todd B. Green are members of the American Academy of Actuaries and a Fellow of the Conference of Consulting Actuaries, and an Associate of the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

*/s/ Edward A. Macdonald*

*/s/ Todd Green*

Edward A. Macdonald, ASA, FCA, MAAA  
President

Todd Green, ASA, FCA, MAAA  
Principal and Consulting Actuary

EAM/kc

Enclosures

**TEACHERS' RETIREMENT SYSTEM OF MONTANA**  
**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

Retirement, disablement and termination of employment assumptions reflect the five-year experience study for the period ending 2009 adopted by the Board on May 13, 2010.

The assumed rates of mortality have been updated based a five-year experience study for the period ending 2013 adopted by the Board on May 13, 2014.

The current asset valuation method was adopted for the July 1, 2007 valuation.

Tables A-3 through A-6 give rates of decrement for service retirement, disablement, mortality, and other terminations of employment.

**Actuarial Cost Method**

The actuarial valuation was prepared using the entry age actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year is called the normal cost. The normal cost was first calculated for each individual member. The normal cost rate is defined to equal the total of the individual normal costs, divided by the total pay rate.

The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets and (b) the actuarial present value of future normal costs is called the UAAL. The UAAL is amortized as a level percentage of the projected salaries of present and future members of the System.

**Records and Data**

The data used in the valuation consist of financial information; records of age, sex, service, salary, contribution rates, and account balances of contributing members; and records of age, sex, and amount of benefit for retired members and beneficiaries. All of the data were supplied by the System and are accepted for valuation purposes without audit.

**Replacement of Terminated Members**

The ages at entry and distribution by sex of future members are assumed to average the same as those of the present members they replace. If the number of active members should increase, it is further assumed that the average entry age of the larger group will be the same, from an actuarial standpoint, as that of the present group. Under these assumptions, the normal cost rates for active members will not vary with the termination of present members.

**TEACHERS' RETIREMENT SYSTEM OF MONTANA**  
**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Employer Contributions**

At the time of this valuation, the total employer contribution rate for normal costs and amortization of the UAAL was 11.16% of members' salaries. The employer contribution rate will increase by 0.10% each year beginning July 1, 2014 until the total employer contribution rate equals 11.96%.

**Administrative and Investment Expenses**

The investment expenses of the System are assumed to be funded by investment earnings in excess of 7.75% per year.

Administrative expenses are assumed to equal 0.28% of payroll.

**Valuation of Assets - Actuarial Basis**

The actuarial asset valuation method spreads asset gains and losses over four years. The expected return is determined each year based on the beginning of year market value and actual cash flows during the year. Any difference between the expected market value return and the actual market value return is recognized evenly over a period of four years. The actuarial value of assets is not allowed to be greater than 120% or less than 80% of the market assets. (Adopted effective July 1, 2007.)

**Investment Earnings**

The annual rate of investment earnings of the assets of the System is assumed to be 7.75% per year net of investment expenses, compounded annually. (Adopted effective July 1, 2014)

**Interest on Member Contributions**

Interest on member contributions is assumed to accrue at a rate of 5% per annum, compounded annually. This assumption was set as of July 1, 2004.

**Postretirement Benefit Increases**

Tier 1 Members:

On January 1 of each year, the retirement allowance payable is increased by 1.5% if the retiree has received benefits for at least 36 months prior to January 1 of the year in which the adjustment is to be made.

Tier 2 Members:

On January 1 of each year, the retirement allowance payable is assumed to increase by 0.5% if the retiree has received benefits for at least 36 months prior to January 1 of the year in which the adjustment is to be made.

**TEACHERS' RETIREMENT SYSTEM OF MONTANA**  
**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Future Salaries**

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-2. In addition to increases in salary due to merit and longevity, this scale includes an assumed 4.0% annual rate of increase in the general wage level of the membership. The merit and longevity increases for the MUS members did not show a pattern of increasing or decreasing with service at the time of our most recent study. Therefore, the MUS members have a flat 1% merit and longevity assumption. The general wage increase assumption was adopted July 1, 2004 and the merit and longevity scales were adopted July 1, 2002.

Montana University System (MUS) members are assumed to have a 0.63% higher average final compensation to account for the larger than average annual compensation increases observed in the years immediately preceding retirement.

**Service Retirement**

Table A-3 shows the annual assumed rates of retirement among members eligible for service retirement. Separate rates are used when a member is eligible for reduced benefits, for the first year a member is eligible for full benefits, and for the years following the first year a member is eligible for full benefits. The rates for General Members were adopted May 13, 2010. The rates for University Members were adopted May 13, 2010.

**Disablement**

The rates of disablement used in this valuation are illustrated in Table A-4. These rates were adopted May 13, 2010.

**Mortality**

The mortality rates used in this valuation are illustrated in Table A-5. A written description of each table used is included in Table A-1. These rates were adopted July 1, 2014.

**Other Terminations of Employment**

The rates of assumed future withdrawal from active service for reasons other than death, disability or retirement are shown for representative ages in Table A-6. These rates were adopted May 13, 2010.

**Benefits for Terminating Members**

Members terminating with less than five years of service are assumed to request an immediate withdrawal of their contributions with interest. Table A-7 shows the assumed probability of retaining membership in the System among members terminating with five or more years of service. These rates were adopted July 1, 2002.

We estimated the present value of future benefits for terminated vested members based on the greater of the present value of their deferred benefit at age 60 or their available contribution account.

### **Part-Time Employees**

The valuation data for active members identify part-time members. For part-time members earning more than \$1,000, total credited service is adjusted based on the ratio of actual earnings to annualized earnings. The liability and normal cost calculations for these members are based on the adjusted service and actual earnings for the prior year.

Part-time members earning less than \$1,000 during the last year were valued at their current member contribution balance.

### **Optional Retirement Program**

ORP payroll as of June 30, 2015 was \$221,811,639.

Effective for fiscal years after June 30, 2007 until June 30, 2033, the Optional Retirement Program contribution rate is 4.72%, pursuant to MCA 19-20-621.

### **Buybacks, Purchase of Service, and Military Service**

The active liabilities and normal cost (excluding liabilities and normal cost in respect of Return of Employee Contributions) were increased to 100.5% of their original value to fund this additional service based on a study of the System's experience for the five calendar years 1995 through 1999. Effective July 1, 2008.

### **Probability of Marriage & Dependent Children**

If death occurs in active status, all members are assumed to have an eligible surviving spouse and two children. The spouse is assumed to be the same age as the member. For members who die prior to age 50, dependent children are assumed to be eight years old. For members who die after age 50 but prior to age 55, children are assumed to be 13 years old. Members who die after age 55 are assumed to have no dependent children under the age of 18.

### **Records with no Birth Date**

New records with no birth date are assumed to be 25 years old. Records that are not new and have no birth date used the same birth date as the prior year's valuation.

**Exhibit 1  
(Continued)**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Table A-1  
Summary of Valuation Assumptions**

I. Economic assumptions	
A. General wage increases* (Adopted July 1, 2014)	4.00%
B. Investment return (Adopted July 1, 2004)	7.75%
C. Price Inflation Assumption (Adopted July 1, 2014)	3.25%
D. Growth in membership	0.00%
E. Postretirement benefit increases (Starting three years after retirement)	
Tier One	1.50%
Tier Two	0.50%
F. Interest on member accounts (Adopted July 1, 2004)	5.00%
II. Demographic assumptions	
A. Individual salary increase due to promotion and longevity (General Member assumptions adopted July 1, 2002) (University Member assumptions adopted July 1, 2000)	Table A-2
B. Retirement (adopted May 13, 2010)	Table A-3
C. Disablement (adopted May 13, 2010)	Table A-4
D. Mortality among contributing members, service retired members, and beneficiaries. The tables include margins for mortality improvement which is expected to occur in the future.  For Males: 1992 Base Rates from the RP 2000 Healthy Annuitant Mortality Table for ages 50 and above and 1992 Base Rates from the RP 2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back four years, with mortality improvements projected by Scale BB to 2018 (adopted July 1, 2014). For Females: 1992 Base Rates from the RP 2000 Healthy Annuitant Mortality Table for ages 50 and above and 1992 Base Rates from the RP 2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back two years, with mortality improvements projected by Scale BB to 2018 (adopted July 1, 2014).	Table A-5
E. Mortality among disabled members  For Males: RP 2000 Disabled Mortality Table for Males, set forward one year, with mortality improvements projected by Scale BB to 2018 (adopted July 1, 2014).  For Females: RP 2000 Disabled Mortality Table for Females, set forward five years, with mortality improvements projected by Scale BB to 2018 (adopted July 1, 2014).	Table A-5
F. Other terminations of employment (adopted May 13, 2010)	Table A-6
G. Probability of retaining membership in the System upon vested termination (adopted July 1, 2002)	Table A-7

\* Montana University System (MUS) members are assumed to have a 0.63% higher average final compensation to account for the larger than average annual compensation increases observed in the years immediately preceding retirement.

**Exhibit 1  
(Continued)**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Table A-2  
Future Salaries**

Years of Service	General Members			University Members		
	Individual Merit & Longevity	General Wage Increase	Total Salary Increase	Individual Merit & Longevity	General Wage Increase	Total Salary Increase
1	4.51%	4.00%	8.51%	1.00%	4.00%	5.00%
2	4.09	4.00	8.09	1.00	4.00	5.00
3	3.46	4.00	7.46	1.00	4.00	5.00
4	2.94	4.00	6.94	1.00	4.00	5.00
5	2.52	4.00	6.52	1.00	4.00	5.00
6	2.21	4.00	6.21	1.00	4.00	5.00
7	1.89	4.00	5.89	1.00	4.00	5.00
8	1.68	4.00	5.68	1.00	4.00	5.00
9	1.47	4.00	5.47	1.00	4.00	5.00
10	1.31	4.00	5.31	1.00	4.00	5.00
11	1.16	4.00	5.16	1.00	4.00	5.00
12	1.00	4.00	5.00	1.00	4.00	5.00
13	0.84	4.00	4.84	1.00	4.00	5.00
14	0.68	4.00	4.68	1.00	4.00	5.00
15	0.58	4.00	4.58	1.00	4.00	5.00
16	0.47	4.00	4.47	1.00	4.00	5.00
17	0.37	4.00	4.37	1.00	4.00	5.00
18	0.26	4.00	4.26	1.00	4.00	5.00
19	0.21	4.00	4.21	1.00	4.00	5.00
20	0.16	4.00	4.16	1.00	4.00	5.00
21	0.11	4.00	4.11	1.00	4.00	5.00
22 & Up	0.00	4.00	4.00	1.00	4.00	5.00

Exhibit 1  
(Continued)

TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Table A-3

Retirement  
Annual Rates

Age	General Members			University Members		
	Eligible for Reduced Benefits	First Year Eligible for Full Benefits	Thereafter	Eligible for Reduced Benefits	First Year Eligible for Full Benefits	Thereafter
45		8.0%	5.5%		17.0%	8.0%
46		8.0	5.5		17.0	8.0
47		8.0	5.5		17.0	8.0
48		8.0	5.5		17.0	8.0
49	*	8.0	5.5	*	17.0	8.0
50	5.0%	8.0	5.5	7.0%	17.0	8.0
51	5.0	8.0	6.3	7.0	17.0	8.0
52	5.0	8.0	8.0	7.0	17.0	8.0
53	5.0	9.0	7.3	7.0	17.0	8.0
54	5.0	9.0	8.2	7.0	17.0	8.0
55	7.0	9.0	9.8	7.0	15.0	8.0
56	7.0	12.0	11.3	7.0	15.0	8.0
57	7.0	11.8	12.5	7.0	15.0	8.0
58	7.0	14.8	13.1	7.0	15.0	8.0
59	7.0	17.4	14.8	7.0	15.0	8.0
60	*	14.6	17.0	*	15.0	8.5
61		21.3	25.0		14.0	14.5
62		23.8	25.0		20.0	19.0
63		11.4	25.0		14.0	14.5
64		19.0	25.0		20.0	18.0
65		40.0	35.0		28.0	26.0
66		8.0	20.0		21.0	21.0
67		30.0	20.0		21.0	24.5
68		6.0	20.0		21.0	19.5
69		6.0	20.0		21.0	30.0
70		**	**		**	**

\* All benefits are unreduced after attaining age 60. Reduced benefits are not available before age 50.

\*\* Immediate retirement is assumed at age 70 or over.

**Exhibit 1  
(Continued)**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Table A-4**

**Disablement  
Annual Rates**

<u>Age</u>	<u>All Members</u>
25	.005%
30	.005
35	.008
40	.028
45	.044
50	.063
55	.084
60	.100

**Exhibit 1  
(Continued)**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Table A-5  
Mortality Annual Rates**

Age	Contributing Members, Service Retired Members and Beneficiaries		Disabled Members	
	Men	Women	Men	Women
25	0.03%	0.02%	2.26%	0.75%
30	0.04	0.02	2.26	0.75
35	0.05	0.04	2.26	0.75
40	0.08	0.06	2.26	0.75
45	0.11	0.09	2.38	1.15
50	0.15	0.14	3.03	1.65
55	0.55	0.26	3.67	2.18
60	0.58	0.41	4.35	2.80
65	0.79	0.68	5.22	3.76
70	1.23	1.11	6.58	5.22
75	2.03	1.85	8.70	7.23
80	3.48	3.03	11.55	10.02
85	5.90	5.03	14.84	14.00
90	10.39	8.79	19.98	19.45
95	17.93	15.29	28.39	23.75

Exhibit 1  
(Continued)

TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Table A-6

Other Terminations of Employment  
Among Members Not Eligible to Retire  
Annual Rates

<u>Years of Service</u>	<u>All Members</u>
1	36.5%
2	20.5
3	14.6
4	10.5
5	8.5
6	7.0
7	6.4
8	5.8
9	5.4
10	5.0
11	4.3
12	3.9
13	3.5
14	3.2
15	2.9
16	2.6
17	2.3
18	2.0
19	1.9
20	1.8
21	1.7
22	1.6
23	1.5
24	1.5

**Exhibit 1  
(Continued)**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Table A-7**

**Probability of Retaining Membership in the System  
Upon Vested Termination**

<u>Age</u>	<u>Probability of Retaining Membership</u>
25	54%
30	54
35	58
40	58
45	60
50	70
55	75

**Exhibit 2**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA  
SCHEDULE OF ACTIVE MEMBER VALUATION DATA**

<b>Full-Time Members</b>				
<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Average Annual Payroll</u>	<u>Annualized % of Increase in Average Pay</u>
July 1, 2006	12,715	\$549,268,000	\$43,198	3.3%
July 1, 2007	12,634	568,351,000	44,986	4.1%
July 1, 2008	12,694	592,514,000	46,677	3.8%
July 1, 2009	12,673	613,077,000	48,377	3.6%
July 1, 2010	12,711	630,444,000	49,598	2.5%
July 1, 2011	12,506	633,005,000	50,616	2.1%
July 1, 2012	12,202	622,140,000	50,987	0.7%
July 1, 2013	12,229	628,832,000	51,421	0.9%
July 1, 2014	12,286	638,467,000	51,967	1.1%
July 1, 2015	12,468	655,204,000	52,551	1.1%
<b>Part-Time Members*</b>				
<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Average Annual Payroll</u>	<u>Annualized % of Increase in Average Pay</u>
July 1, 2006	4,840	\$57,700,000	\$11,921	(3.5)%
July 1, 2007	4,994	61,100,000	12,235	2.6%
July 1, 2008	5,077	64,900,000	12,783	4.5%
July 1, 2009	5,270	69,900,000	13,264	3.8%
July 1, 2010	5,642	74,571,000	13,217	(0.4)%
July 1, 2011	5,400	73,275,000	13,569	2.7%
July 1, 2012	5,534	73,788,000	13,334	(1.7)%
July 1, 2013	5,387	73,430,000	13,631	2.2%
July 1, 2014	5,428	74,300,000	13,688	0.4%
July 1, 2015	5,337	74,449,000	13,950	1.9%

\* Excludes part-time active members with annual compensation less than \$1,000.

**Exhibit 3**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA**

**SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS**

Year Ended	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increases in Annual Allowances	Average Annual Allowances
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances		
June 30, 2006	617	\$12,898,000	262	\$1,913,000	11,019	\$181,114,000	6.5%	\$16,436
June 30, 2007	668	16,737,000	331	2,614,000	11,356	195,237,000	7.8%	17,192
June 30, 2008	762	17,688,000	330	3,940,000	11,788	208,985,000	7.0%	17,729
June 30, 2009	512	12,072,000	264	1,790,000	12,036	219,267,000	4.9%	18,218
June 30, 2010	698	16,124,000	294	1,343,000	12,440	234,048,000	6.7%	18,814
June 30, 2011	789	20,846,000	330	4,394,000	12,899	250,500,000	7.0%	19,420
June 30, 2012	777	22,108,000	313	4,757,000	13,363	267,851,000	6.9%	20,044
June 30, 2013	834	21,500,000	329	5,018,000	13,868	284,333,000	6.2%	20,503
June 30, 2014	792	24,241,000	312	5,054,489	14,349	303,520,000	6.7%	21,153
June 30, 2015	864	24,213,000	374	6,222,000	14,839	321,511,000	5.9%	21,667

**Exhibit 4**

**TEACHERS' RETIREMENT SYSTEM OF MONTANA**

**SOLVENCY TEST**

(All dollar amounts in millions)

Actuarial Valuation Date	Actuarial Value of Assets	Aggregate Accrued Liabilities For			Portion of Accrued Liabilities Covered by Reported Asset		
		(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1)	(2)	(3)
July 1, 2008	\$ 3,159.1	\$ 823.6	\$ 2,313.0	\$ 974.2	100.0%	100.0%	2.3%
July 1, 2009	2,762.2	832.8	2,415.8	1,082.4	100.0%	79.9%	0.0%
July 1, 2010	2,956.6	823.9	2,557.0	1,137.2	100.0%	83.4%	0.0%
July 1, 2011	2,866.5	803.3	2,721.4	1,133.8	100.0%	75.8%	0.0%
July 1, 2012	2,852.0	780.7	2,898.9	1,135.1	100.0%	71.5%	0.0%
July 1, 2013	3,067.9	756.9	2,828.6	1,007.2	100.0%	81.7%	0.0%
July 1, 2014	3,397.4	741.7	3,354.6	1,094.7	100.0%	79.2%	0.0%
July 1, 2015	3,609.8	727.1	3,527.6	1,096.7	100.0%	81.7%	0.0%

## **Exhibit 5**

### **TEACHERS' RETIREMENT SYSTEM OF MONTANA ANALYSIS OF FINANCIAL EXPERIENCE**

An analysis of financial experience is performed in conjunction with all regularly scheduled valuations.

The results of our analysis of the financial experience of the System in the two most recent regular actuarial valuations are presented in this Exhibit 5. Each gain or loss shown represents our estimate of how much the given type of experience caused the Unfunded Actuarial Accrued Liability or Funding Reserve to change in the period since the previous actuarial valuation.

Gains and losses shown due to demographic sources are approximate. Demographic experience is analyzed in greater detail in our periodic assumption studies.

Non-recurring gains and losses result from changes in the actuarial assumptions and benefit improvements.

**Exhibit 5**  
(Continued)

**TEACHERS' RETIREMENT SYSTEM OF MONTANA**  
**ANALYSIS OF FINANCIAL EXPERIENCE \***  
(All dollar amounts in millions)

	<b>UAAL (Gain)/Loss</b>		
	<b>June 30, 2015</b>	<b>June 30, 2014</b>	<b>June 30, 2013</b>
<b>Investment Income</b>			
Investment income was (greater) less than expected based on actuarial value of assets.	\$ (61.4)	\$ (165.6)	\$ (118.2)
<b>Pay Increases</b>			
Pay increases were (less) greater than expected.	(10.3)	(28.1)	(38.2)
<b>Age &amp; Service Retirements</b>			
Members retired at (older) younger ages or with (less) greater final average pay than expected	8.3	18.8	19.3
<b>Disability Retirements</b>			
Disability claims were (less) greater than expected	0.6	0.2	0.3
<b>Death-in-Service Benefits</b>			
Survivor claims were (less) greater than expected	(2.8)	(2.8)	(0.4)
<b>Withdrawal From Employment</b>			
(More) less reserves were released by withdrawals than expected	5.1	20.0	4.1
<b>Death After Retirement</b>			
Retirees (died younger) lived longer than expected	9.0	12.0	2.3
<b>Data Adjustments and Benefit Payment Timing</b>			
Service purchases, data corrections, etc.	0.7	(1.6)	(4.4)
<b>Other</b>			
Miscellaneous (gains) and losses	1.2	(0.4)	0.1
<b>Total (Gain) or Loss During Period From Financial Experience</b>	<b>\$ (49.6)</b>	<b>\$ (147.5)</b>	<b>\$ (135.1)</b>
<b>Non-Recurring Items.</b>			
Changes in actuarial assumptions and methods	(4.7)	46.5	
Changes in benefits caused a (gain) loss		405.2	(371.1)
<b>Composite (Gain) Loss During Period</b>	<b>\$ (54.3)</b>	<b>\$ 304.2</b>	<b>\$ (506.2)</b>

\* Effects related to gains are shown in parentheses. Numerical results are expressed as a (decrease) increase in the Unfunded Actuarial Accrued Liability (UAAL). Gains decrease the UAAL and losses increase the UAAL.

## **TEACHERS' RETIREMENT SYSTEM OF MONTANA**

### **PROVISIONS OF GOVERNING LAW**

#### **Effective Date**

September 1, 1937.

#### **Vesting Period**

Five years. No benefits are payable unless the member has a vested right, except the return of employee contributions with interest.

#### **Tier One Member**

A person who became a member before July 1, 2013 and who has not withdrawn the member's account balance.

#### **Tier Two Member**

A person who became a member on or after July 1, 2013, or who after withdrawing the member's account balance, became a member again after July 1, 2013.

#### **Final Compensation**

Tier One Members

Average of highest three consecutive years of earned compensation.

Tier Two Members

Average of highest five consecutive years of earned compensation.

#### **Normal Form of Benefits**

Life only annuity. All benefits cease upon death; however, in no event will the member receive less than the amount of employee contributions with interest.

## **Normal Retirement Benefits**

### Tier One Members

**Eligibility:** 25 years of service or age 60 with five years of service.

**Benefit:** The retirement benefit is equal to 1/60 of final compensation for each year of service.

### Tier Two Members

**Eligibility:** Age 55 with 30 years of service or age 60 with five years of service.

**Benefit:** A member age 60 with at least 30 years of creditable service will receive a retirement allowance equal to 1.85% of final compensation for each year of service. Otherwise, the multiplier used to calculate the retirement allowance will equal 1/60 of final compensation for each year of service.

## **Early Retirement Benefits**

### Tier One Member

**Eligibility:** Five years of service and age 50.

**Benefit:** The retirement benefit is calculated in the same manner as described for normal retirement, but the benefit is actuarially reduced by the lesser of the number of years equal to the age of the participant at the early retirement subtracted from age 60 or the number of years of service at early retirement subtracted from 25 years of service.

### Tier Two Member

**Eligibility:** Five years of service and age 55.

**Benefit:** The retirement benefit is calculated in the same manner as described for normal retirement, but the benefit is actuarially reduced by the lesser of the number of years equal to the age of the participant at the early retirement subtracted from age 60 or the number of years of service at early retirement subtracted from 30 years of service.

## **Exhibit 6**

### **Death Benefit**

Eligibility: Five years of service.

Benefit: The death benefit is equal to 1/60 of final compensation for each year of service accrued at date of death, with an actuarial adjustment based on the relation of the member's age at death to the beneficiary's age. A monthly benefit of \$200 is paid to each child until age 18. In addition, a lump-sum benefit of \$500 is paid upon the death of an active or retired member.

### **Disability Benefit**

Eligibility: Five years of service.

Benefit: The disability benefit is equal to 1/60 of final compensation for each year of service accrued at date of disability. The minimum benefit is 1/4 of the final compensation. A Tier Two Member is not eligible for a disability retirement if the member is or will be eligible for a service retirement on or before the member's date of determination.

### **Withdrawal Benefits**

With less than five years of service, the accumulated employee contributions with interest are returned. With more than five years, the member may elect a refund of contributions with interest or leave the contributions and interest in the System and retain a vested right to retirement benefits.

### **Contributions**

Tier One Member: 7.15% of compensation. Tier One members are required to contribute a Supplemental Contribution equal to an additional 1% of compensation. The Board may decrease the Supplemental Contribution if the average funded ratio of the System based on the last three actuarial valuations is equal to or greater than 90% and the period necessary to amortize the unfunded liabilities of the System based on the most recent actuarial valuation is less than 15 years. Following one or more decreases in the supplemental contribution the Board may increase the supplemental contribution to a rate not to exceed 1% if the average funded ratio of the System based on the last three annual actuarial valuations is equal to or less than 80% and the period necessary to amortize all liabilities of the System based on the most recent annual actuarial valuation is greater than 20 years.

**Exhibit 6  
(continued)**

Tier Two Member: 8.15% of compensation. The Board may require a Tier Two member to contribute a Supplemental Contribution if the average funded ratio of the System based on the last three actuarial valuations is equal to or less than 80% and the period necessary to amortize the unfunded actuarial accrued liability is greater than 20 years and a State or employer contribution rate increase or a flat dollar contribution to the System has been enacted which is equivalent to or greater than the Supplemental Contribution Rate imposed by the Board. A single Tier Two Supplemental Contribution Rate increase cannot exceed 0.5% of compensation and in total cannot exceed 9.15% of compensation. The Board may decrease the Supplemental Contribution if the average funded ratio of the System based on the previous three annual actuarial valuations is equal to or greater than 90%; and the period necessary to amortize the unfunded actuarial accrued liability is less than 15 years.

Employer: 9.96% of compensation. Employers are required to contribute a supplemental contribution equal to 1% for fiscal year 2014 and increase by 0.1% each fiscal year through 2024. The Board may decrease the Employer Supplemental Contribution if the average funded ratio of the System based on the last three actuarial valuations is equal to or greater than 90% and the period necessary to amortize the unfunded actuarial accrued liability based on the most recent valuation is less than 15 years and the GABA has been increased to the maximum allowable. Following one or more decreases in the Supplemental Contribution Rate the Board may increase the Supplemental Contribution Rate to a rate not to exceed 1% if the average funded ratio of the System based on the last three actuarial valuations is equal to or less than 80% and the period necessary to amortize the unfunded actuarial accrued liability is greater than 20 years.

MCA 19-20-604 specifies that the employer contribution rate will be reduced by 0.11% when the amortization period of the System's UAAL is 10 years or less according to the System's latest actuarial valuation.

State Supplemental Contribution: \$25 million per year on an annual basis payable on July 1<sup>st</sup> of each year.

**Exhibit 6  
(continued)**

Re-employed Retirees: Each employer is required to contribute 9.85% of total compensation paid to all re-employed TRS retirees employed in a TRS reportable position. This amount shall increase by 1.00% for fiscal year 2014 and increase by 0.10% each fiscal year through 2024 until the total employer contribution is equal to 11.85% of re-employed retiree compensation.

**Interest on Member  
contributions**

Effective July 1, 2014, the interest credited on member contributions is reduced from 0.25% to 0.20% per annum.

**Guaranteed Annual Benefit  
Adjustment (GABA)**

On January 1 of each year, if the retiree has received benefits for at least 36 months prior to January 1 of the year in which the adjustment is to be made, for Tier One Members, the retirement allowance will be increased by 1.5%.

For Tier Two Members, the retirement allowance will be increased by an amount equal to or greater than 0.5% but no more than 1.5% if the most recent actuarial valuation shows the System to be at least 90% funded and the provisions of the increase is not projected to cause the funded ratio to be less than 85%.

**Exhibit 7**

**TRS PLAN**  
**SCHEDULE OF FUNDING PROGRESS**  
 (All dollar amounts in millions)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL) <sup>1</sup>	Unfunded Actuarial Liabilities (UAAL) <sup>2</sup>	Funded Ratio <sup>3</sup>	Covered Payroll <sup>4</sup>	UAAL as a Percentage of Covered Payroll
July 1, 2015	\$3,609.8	\$5,351.4	\$1,741.6	67.5%	\$768.7	226.6%
July 1, 2014	3,397.4	5,191.1	1,793.6	65.5%	750.6	239.0%
July 1, 2013	3,067.9	4,592.7	1,524.8	66.8%	742.6	205.3%
July 1, 2012	2,852.0	4,814.7	1,962.7	59.2%	735.6	266.8%
July 1, 2011	2,866.5	4,658.6	1,792.1	61.5%	746.7	240.0%
July 1, 2010	2,956.6	4,518.2	1,561.6	65.4%	747.0	209.0%
July 1, 2009	2,762.2	4,331.0	1,411.6	66.2%	683.2	206.6%

- 1) Actuarial present value of benefits less actuarial present value of future normal costs based on entry age actuarial cost method.
- 2) Actuarial accrued liabilities less actuarial value of assets and present value of future university supplemental contributions.
- 3) Funded Ratio is the ratio of the actuarial value of assets over the actuarial accrued liabilities less the present value of future university supplemental contributions. .
- 4) Covered Payroll includes compensation paid to all active employees on which contributions are calculated.

Exhibit 8

**TRS PLAN  
SCHEDULE OF CONTRIBUTIONS FROM EMPLOYERS  
AND OTHER CONTRIBUTING ENTITIES**

(All dollar amounts in thousands)

	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>
Actuarially determined employer contribution	\$130,680,397	\$148,362,932	\$130,533,530	\$108,993,492	\$ 91,879,263	\$ 90,967,180	\$ 80,997,968	\$ 81,414,325	\$ 40,807,133	\$ 42,768,730
Actual contributions										
Employers	\$ 87,290,863	\$ 83,439,612	\$ 74,113,191	\$ 72,422,404	\$ 72,879,950	\$ 72,179,128	\$ 66,850,644	\$ 67,921,950	\$ 61,943,986	\$ 58,268,941
Non-employer contributing entities	<u>43,389,534</u>	<u>64,923,320</u>	<u>17,521,347</u>	<u>16,843,766</u>	<u>17,437,366</u>	<u>17,241,610</u>	<u>14,147,324</u>	<u>13,492,375</u>	<u>720,266</u>	<u>693,226</u>
Total	<u>\$130,680,397</u>	<u>\$148,362,932</u>	<u>\$ 91,634,538</u>	<u>\$ 89,266,170</u>	<u>\$ 90,317,316</u>	<u>\$ 89,420,738</u>	<u>\$ 80,997,968</u>	<u>\$ 81,414,325</u>	<u>\$ 62,664,252</u>	<u>\$ 58,962,167</u>
Annual contribution deficiency (excess)	\$ -	\$ -	\$ 38,898,992	\$ 19,727,322	\$ 1,561,947	\$ 1,546,442	\$ -	\$ -	\$(21,857,119)	\$(16,193,437)
Covered-employee payroll	\$768,718,699	\$750,604,063	\$742,608,987	\$735,586,961	\$746,694,434	\$747,037,330	\$683,235,462	\$657,435,444	\$664,100,000	\$636,000,000
Actual contributions as a percentage of covered-employee payroll	17.00%	19.77%	12.34%	12.14%	12.10%	11.97%	11.86%	12.38%	9.44%	9.27%

# **STATISTICAL SECTION**

## **SCHEDULE OF CHANGES IN NET POSITION**

This schedule allows the reader an opportunity to review trends in the revenues and expenses of the TRS for the last ten years.

## **SCHEDULE OF AVERAGE BENEFIT PAYMENTS**

This schedule shows the average monthly benefit, average final average salary, and number of retirees categorized by years of credited service for the last ten years.

## **SCHEDULE OF MEMBERSHIP**

This schedule presents the membership type for the last ten years.

## **SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES BY TYPE OF BENEFIT**

This schedule shows the number of retirees and beneficiaries by benefit type for the current year.

## **SCHEDULE OF PRINCIPAL PARTICIPATING EMPLOYERS**

This schedule presents the 15 largest employers in the TRS for the current year as compared to nine years ago.

## **LOCATION OF BENEFIT RECIPIENTS**

This schedule lists the number of current beneficiaries by geographic location.

**Teachers' Retirement System**  
**A Component Unit of the State of Montana**

**Schedule of Changes in Net Position**  
**Last Ten Fiscal Years**  
*(In thousands)*

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Additions:</b>										
Member Contributions	\$ 87,291	70,468	62,850	62,746	62,993	62,845	57,256	59,552	56,509	53,293
Employer Contributions	72,216	83,440	74,113	72,422	72,880	72,179	66,851	67,922	61,944	58,269
Other Contributions	43,389	64,923	17,521	16,844	17,437	17,242	14,147	13,492	50,720	100,693
Misc Income	27	6	8	10	17	65	16	16	16	4
Net Investment Income	165,685	540,277	373,722	66,341	539,028	294,954	(613,028)	(153,312)	484,532	224,787
<b>Total Additions</b>	<b>\$ 368,608</b>	<b>759,114</b>	<b>528,214</b>	<b>218,363</b>	<b>692,355</b>	<b>447,285</b>	<b>(474,758)</b>	<b>(12,330)</b>	<b>653,721</b>	<b>437,046</b>
<b>Deductions:</b>										
Benefit Payments:									182,827	171,957
Retirees	\$ 281,920	277,012	260,791	244,071	227,840	213,130	203,096	189,441		
Beneficiaries	18,702	5,055	4,416	4,336	4,399	4,173	4,063	3,898		
Disabilities	3,052	3,115	3,044	3,004	2,884	2,890	2,784	2,721		
Withdrawals	5,369	4,789	5,119	5,295	4,365	4,166	5,170	5,695	5,595	4,876
Administrative Expenses	2,035	2,023	1,934	1,830	1,843	1,905	1,854	1,751	1,434	1,579
Other	141	58	48	46	49	47	49	47	502	
<b>Total Deductions</b>	<b>\$ 311,219</b>	<b>292,052</b>	<b>275,352</b>	<b>258,582</b>	<b>241,380</b>	<b>226,311</b>	<b>217,016</b>	<b>203,553</b>	<b>190,358</b>	<b>178,412</b>
<b>Change in Net Position</b>	<b>\$ 57,389</b>	<b>467,062</b>	<b>252,862</b>	<b>(40,219)</b>	<b>450,975</b>	<b>220,974</b>	<b>(691,774)</b>	<b>(215,883)</b>	<b>463,363</b>	<b>258,634</b>

**Schedule of Average Benefit Payments  
Ten Years Ended June 30, 2015**

**Fiscal Year of Retirement**

**Years of Credited Service**

2015	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	376	533	1,050	1,663	2,355	3,488
Average Final Average Compensation	3,207	2,876	3,787	4,677	5,490	6,245
Number of Retirees	48	59	67	102	123	249

2014	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	390	650	1,016	1,645	2,308	3,360
Average Final Average Compensation	3,058	3,439	3,891	4,555	5,308	6,046
Number of Retirees	44	59	78	92	139	270

2013	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	273	692	989	1,637	2,260	3,208
Average Final Average Compensation	2,338	3,534	3,749	4,593	5,237	5,787
Number of Retirees	69	71	68	103	132	275

2012	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	319	611	990	1,560	2,283	3,264
Average Final Average Compensation	2,618	3,163	3,886	4,413	5,246	5,959
Number of Retirees	66	58	58	76	144	259

2011	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	282	574	1,024	1,627	2,151	3,344
Average Final Average Compensation	2,411	2,900	3,849	4,677	4,984	5,983
Number of Retirees	69	66	67	83	130	248

2010	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	289	597	957	1,490	2,130	3,119
Average Final Average Compensation	2,531	3,069	3,551	4,379	5,010	5,626
Number of Retirees	59	64	49	67	129	249

2009	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	262	596	1,014	1,504	2,053	3,004
Average Final Average Compensation	2,234	3,117	3,931	4,307	4,800	5,445
Number of Retirees	50	46	45	56	98	172

2008	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	271	557	975	1,510	2,112	2,954
Average Final Average Compensation	2,375	2,766	3,784	4,350	4,934	5,429
Number of Retirees	56	51	79	74	144	208

2007	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	295	507	893	1,525	2,035	2,792
Average Final Average Compensation	2,539	2,918	3,535	4,257	4,763	5,145
Number of Retirees	58	59	49	67	143	223

2006	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Average Monthly Benefit	221	556	778	1,377	1,908	2,660
Average Final Average Compensation	2,031	3,023	3,178	4,039	4,509	4,897
Number of Retirees	49	52	52	59	134	178

**Schedule of Membership  
Ten Years Ended June 30, 2015**

**Active and Inactive Members**

<u>Period Ended</u>	<u>Active Members</u>	<u>Inactive Vested Members</u>	<u>Inactive Non-vested</u>	<u>Total</u>
June 30, 2015	18,316	1,664	12,839	32,819
June 30, 2014	18,272	1,654	12,308	32,234
June 30, 2013	18,249	1,566	11,710	31,525
June 30, 2012	18,372	1,566	11,172	31,110
June 30, 2011	18,484	1,580	10,727	30,791
June 30, 2010	18,953	1,553	10,304	30,810
June 30, 2009	18,456	1,640	9,868	29,964
June 30, 2008	18,292	1,649	9,574	29,515
June 30, 2007	18,188	1,660	8,856	28,704
June 30, 2006	18,108	1,681	8,470	28,259

**Retired Members and Benefit Recipients  
Ten Years Ended June 30, 2015**

<u>Period Ended</u>	<u>Retirement</u>	<u>Survivors</u>	<u>Disability</u>	<u>Total</u>
June 30, 2015	14,164	471	204	14,839
June 30, 2014	13,685	460	204	14,349
June 30, 2013	13,206	459	203	13,868
June 30, 2012	12,703	457	203	13,363
June 30, 2011	12,247	445	207	12,899
June 30, 2010	11,620	504	316	12,440
June 30, 2009	11,228	498	310	12,036
June 30, 2008	11,043	438	307	11,788
June 30, 2007	10,242	424	305	10,971
June 30, 2006	9,909	429	299	10,637

**Schedule of Retired Members and Beneficiaries by Type of Benefit  
as of June 30, 2015**

<b>Amount of Monthly Benefit</b>	<b>Total Benefit Recipients</b>	<b>Retirees</b>	<b>Beneficiaries</b>	<b>Disability</b>
\$ 0 - 500	2,148	1,724	351	73
501 - 1,000	1,896	1,422	343	131
1,001 - 1,500	2,061	1,712	275	74
1,501 - 2,000	2,682	2,474	191	17
2001 - 2,500	2,380	2,268	104	8
2,501 - 3,000	1,596	1,535	60	1
3,001 - 3,500	878	852	26	-
3,501 - 4,000	514	491	23	-
4,001 - 4,500	264	256	8	-
4,501 - 5,000	116	113	3	-
Over 5,000	178	175	3	-
<b>Total</b>	<b>14,713</b>	<b>13,022</b>	<b>1,387</b>	<b>304</b>
<b>Total Benefit Payments</b>	<b>\$ 299,226,301</b>	<b>\$ 277,471,478</b>	<b>\$ 18,702,418</b>	<b>\$ 3,052,405</b>

**Schedule of Principal Participating Employers  
as of June 30, 2015**

<u>Employer</u>	<u>Active Members</u>	<u>% of Total Active Members</u>
Billings Public Schools	1,542	8.34%
Great Falls Public Schools	1,144	6.19%
Missoula County Public Schools	974	5.27%
Helena Public Schools	917	4.96%
Bozeman Public Schools	693	3.75%
Kalispell Public Schools	580	3.14%
Butte Public Schools	384	2.08%
Belgrade Public Schools	363	1.96%
Browning Public Schools	290	1.57%
Hardin Public Schools	279	1.51%
Havre Public Schools	263	1.42%
Columbia Falls Public Schools	260	1.41%
Laurel Public Schools	215	1.16%
Hamilton Public Schools	203	1.10%
Polson Public Schools	200	1.08%
Sidney Public Schools	193	1.04%
Miles City Public Schools	191	1.03%
Flathead Community College	186	1.01%
University of Montana	185	1.00%
Whitefish Public Schools	179	0.97%

**Location of Benefit Recipients by Country and State  
as of June 30, 2015**

Country	State	Gross Benefit	Count
USA	AE	\$ 7,858	1
USA	AK	\$ 663,621	38
USA	AL	\$ 80,241	9
USA	AP	\$ 49,090	3
USA	AR	\$ 159,732	13
USA	AZ	\$ 9,565,768	481
USA	CA	\$ 2,644,698	157
USA	CO	\$ 2,119,418	128
USA	CT	\$ 70,990	6
USA	DC	\$ 56,032	5
USA	DE	\$ 64,563	2
USA	FL	\$ 1,475,622	81
USA	GA	\$ 155,836	11
USA	HI	\$ 211,919	13
USA	IA	\$ 434,112	21
USA	ID	\$ 2,976,008	175
USA	IL	\$ 263,196	19
USA	IN	\$ 213,509	15
USA	KS	\$ 187,395	16
USA	KY	\$ 173,392	9

Country	State	Gross Benefit	Count
USA	NH	\$ 120,765	5
USA	NJ	\$ 27,995	5
USA	NM	\$ 715,665	37
USA	NV	\$ 2,235,960	127
USA	NY	\$ 179,258	15
USA	OH	\$ 167,633	12
USA	OK	\$ 242,586	18
USA	OR	\$ 3,295,003	202
USA	PA	\$ 177,103	16
USA	RI	\$ 27,974	2
USA	SC	\$ 178,783	12
USA	SD	\$ 874,020	61
USA	TN	\$ 203,595	15
USA	TX	\$ 1,580,447	99
USA	UT	\$ 1,047,503	66
USA	VA	\$ 377,365	23
USA	VT	\$ 41,000	4
USA	WA	\$ 6,911,171	432
USA	WI	\$ 317,005	26
USA	WV	\$ 4,637	2

Country	State	Gross Benefit	Count
USA	LA	\$ 82,178	9
USA	MA	\$ 288,211	13
USA	MD	\$ 170,415	14
USA	ME	\$ 76,416	4
USA	MI	\$ 434,132	28
USA	MN	\$ 1,590,480	90
USA	MO	\$ 368,533	29
USA	MS	\$ 170,343	7
USA	MT	\$ 251,159,293	11,379
USA	NC	\$ 609,726	36
USA	ND	\$ 1,980,422	119
USA	NE	\$ 258,654	22

Country	State	Gross Benefit	Count
USA	WY	\$ 1,979,330	135
AUSTRALIA		\$ 12,309	2
CANADA		\$ 168,459	19
SWITZERLAND		\$ 8,346	1
GERMANY		\$ 4,253	1
UNITED KINGDOM		\$ 71,737	3
ISRAEL		\$ 46,119	2
MARSHALL ISLANDS		\$ 33,028	1
NEW ZEALAND		\$ 7,655	1
<b>TOTAL</b>		<b>\$ 299,818,508</b>	<b>14,297</b>

**Location of Montana Benefit Recipients by County as of June 30, 2015**

<b>County</b>	<b>Gross Benefit</b>	<b>Count</b>
BEAVERHEAD	\$ 2,663,924	133
BIG HORN	\$ 2,245,506	108
BLAINE	\$ 1,404,330	82
BROADWATER	\$ 1,066,236	53
CARBON	\$ 2,398,985	132
CARTER	\$ 118,420	10
CASCADE	\$ 20,867,273	941
CHOUTEAU	\$ 1,320,327	78
CUSTER	\$ 3,037,177	151
DANIELS	\$ 506,955	28
DAWSON	\$ 2,360,911	112
DEER LODGE	\$ 2,912,665	132
FALLON	\$ 650,727	29
FERGUS	\$ 3,489,647	185
FLATHEAD	\$ 19,553,793	957
GALLATIN	\$ 24,219,662	961
GARFIELD	\$ 138,582	10
GLACIER	\$ 2,430,148	115
GOLDEN VALLEY	\$ 145,827	12
GRANITE	\$ 605,123	32
HILL	\$ 4,428,149	200
JEFFERSON	\$ 3,203,249	151
JUDITH BASIN	\$ 380,134	23
LAKE	\$ 6,157,568	301

<b>County</b>	<b>Gross Benefit</b>	<b>Count</b>
MEAGHER	\$ 404,573	23
MINERAL	\$ 1,160,302	61
MISSOULA	\$ 35,417,791	1,362
MUSSELSHELL	\$ 1,172,439	56
PARK	\$ 2,795,145	134
PETROLEUM	\$ 97,006	7
PHILLIPS	\$ 1,298,233	65
PONDERA	\$ 1,443,790	82
POWDER RIVER	\$ 270,137	18
POWELL	\$ 1,480,182	75
PRAIRIE	\$ 168,764	12
RAVALLI	\$ 6,810,722	379
RICHLAND	\$ 1,892,306	95
ROOSEVELT	\$ 1,801,282	100
ROSEBUD	\$ 1,636,589	94
SANDERS	\$ 2,157,593	123
SHERIDAN	\$ 1,060,535	54
SILVER BOW	\$ 11,794,778	488
STILLWATER	\$ 1,943,730	105
SWEET GRASS	\$ 1,055,412	41
TETON	\$ 1,705,421	92
TOOLE	\$ 897,803	50
TREASURE	\$ 223,940	14
VALLEY	\$ 2,188,979	108

LEWIS AND CLARK	\$ 18,282,113	791
LIBERTY	\$ 320,167	20
LINCOLN	\$ 4,721,025	242
MADISON	\$ 1,899,155	92
MCCONE	\$ 408,167	29

WHEATLAND	\$ 385,764	30
WIBAUX	\$ 139,160	7
YELLOWSTONE	\$ 37,820,972	1,594
<b>Total</b>	<b>\$ 251,159,293</b>	<b>11,379</b>