

**Milliman**

Consultants and Actuaries

October 31, 2006

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Mr. David L. Senn
Executive Director
Teachers' Retirement System State of Montana
P.O. Box 200139
Helena, MT 59620-0139

Re: July 1, 2006 Montana University System Study

Dear Dave:

The purpose of this letter is to determine the financial position of the Montana University System (MUS) and determine the supplemental contribution rate necessary to amortize the Past Service Liability of the university system members by July 1, 2033. This is required by MCA, Section 19-20-621. The required supplemental contribution rate starting July 1, 2007 is 4.72% of ORP member salaries. This is larger than the current MUS Supplemental Contribution Rate of 4.04%, but smaller than the rate of 5.09% calculated in our July 1, 2004 study. The attached Tables show the underlying calculations and summarize the MUS member data used in this Study.

There will always be variations in estimated costs due to differences between actual experience and projected experience. In this case, actuarial experience has been favorable for the University Members over the last two years, and their estimated liabilities were lower than expected. This caused a gain, which in turn lowered the required contribution rate. Some of the factors contributing to the gain were salary increases less than expected and older members who did not retire at the rates expected. Past experience has not always been favorable. The future estimated contribution rates will continue to vary either up or down to the extent actual experience differs from that projected by the actuarial assumptions.

Background

Section 19-20-621 of MCA, reads as follows:

"Montana university system optional retirement program supplemental contributions.

- (1) Each employer within the university system with employees participating in the optional retirement program under Title 19, chapter 21, shall contribute to the teachers' retirement system a supplemental employer contribution sufficient to amortize, by July 1, 2033, the Past Service Liability of the teachers' retirement system for the university system members.

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- (2) The optional retirement program supplemental employer contribution as a percentage of the total compensation of all employees participating in the program must increase to:
 - (a) 2.81% beginning July 1, 1997;
 - (b) 3.12% beginning July 1, 1998;
 - (c) 3.42% beginning July 1, 1999;
 - (d) 3.73% beginning July 1, 2000; and
 - (e) 4.04% beginning July 1, 2001.
- (3) The board shall periodically review the supplemental employer contribution rate and recommend adjustments to the legislature as needed to maintain the amortization of the university system's Past Service Liability by July 1, 2033.”

This legislation was the result of the creation of the Optional Retirement Program (ORP) for employees of the Montana University System (MUS), which was established January 1, 1988. Subsequent to the establishment of ORP, MUS employees could elect to join ORP or TRS. To prevent an adverse impact on TRS, a supplemental contribution rate of 4.503% of earned compensation of MUS employees who participated in ORP was contributed to TRS. Legislation in 1993 removed the MUS election and required all new MUS employees hired after July 1, 1993 to join ORP. The supplemental contribution rate has been reset twice. It was first reset to 2.503%. It was most recently reset to the schedule shown above in MCA 19-20-621, which was based on the July 1, 1996 MUS valuation.

MUS Valuations subsequently were performed as of July 1, 2000 and July 1, 2004. The 2004 valuation recommended increasing the 4.04% university supplemental contribution rate to 5.09% of pay, but no change has been made to date.

Data, Methods and Assumptions

The cost estimates in this letter are based on the assumptions, methods, plan provisions, assets and member data used in the July 1, 2006 actuarial valuation. We have not made any adjustment for actuarial gains or losses to the liabilities that may emerge after July 1, 2006.

The calculations assume the value of GABA benefits for MUS members are not financed by the supplemental contributions made as a percent of ORP member salaries but are instead financed by the TRS contribution rate.

Caveats and Certification

These cost estimates are subject to the uncertainties of a regular actuarial valuation; the costs are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable. Thus, the emerging costs may vary from those presented in this letter to the extent actual experience differs from that projected by the actuarial assumptions.

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This information is for the exclusive use of the Teachers' Retirement System of the State of Montana for the purposes stated herein. It is a complex technical analysis that assumes a high level of knowledge concerning the System's operations, and uses the System's data which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs. Any distribution of this report must be in its entirety, unless prior written consent from Milliman is obtained.

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 principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

I, Mark C. Olleman, am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions, please call.

Sincerely,

Mark C. Olleman, FSA, EA, MAAA
Consulting Actuary

MCO/kjk

Enclosure

cc: Ms. Karen I. Steffen (w/enclosure)

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**Montana University System
Participation in the Teachers' Retirement System**

Table 1

**Estimated Supplemental Contribution Rate
As a Percentage of Salary
(All Dollar Amounts in Millions)**

	<u>July 1, 2004</u>	<u>July 1, 2006</u>
A. Actuarial present value of future benefits for present and former members and their survivors	\$ 454.6	\$ 460.3
B. Actuarial present value of total future contributions for present members	40.1	33.2
C. Actuarial value of assets available for benefits	<u>270.1</u>	<u>282.4</u>
D. Remaining Past Service Liability to be paid for by a percentage of future ORP salaries (A - B - C)	\$ 144.4	\$ 144.7
E. Interest on Past Service Liability for Fiscal Year ending one year after the valuation date	11.2	11.2
F. Estimated supplemental payment of 4.04% towards Past Service Liability for Fiscal Year ending one year after the valuation date.	<u>5.1</u>	<u>6.0</u>
G. Estimated MUS Past Service Liability one year after the valuation date (D + E - F)	\$ 150.5	\$ 149.9
H. Present value, one year after the valuation date, of future ORP salaries through June 30, 2033	\$ 2,957.5	\$ 3,174.6
I. Supplemental contribution rate as a percentage of salaries to fund all MUS Benefits (G/H)*	5.09%	4.72%**

* Starting one year after the valuation date shown at the top of the column

** The 4.72% contribution rate would increase to 7.47% if GABA benefits for MUS members were financed by the supplemental contributions.

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Table 2

Summary of Member Data

MUS Active Members

Number	Annual Salaries in Millions
633	\$40.4

MUS Annuitants

Type of Annuitant	Number	Annual Benefits in Thousands	Average Annual Benefits
Service Retirement	1,212	27,853	22,981
Survivors of Deceased Retired Members	160	2,090	13,065
Survivors of Deceased Active Members	59	727	12,321
Disability Retirement	11	147	13,363
Total Annuitants	1,442	30,817	21,371

MUS Terminated Members with Contributions Not Withdrawn

Vested Terminated Members	130
Non-Vested Terminated Members	280
Total Terminated Members	410

Optional Retirement Program Members

The total contribution received for the fiscal year ending June 30, 2006 was \$5,512,447. Based on a contribution rate of 4.04%, we assumed the total ORP payroll for the fiscal year to be \$136,446,708 (\$5,512,447 divided by 4.04%).