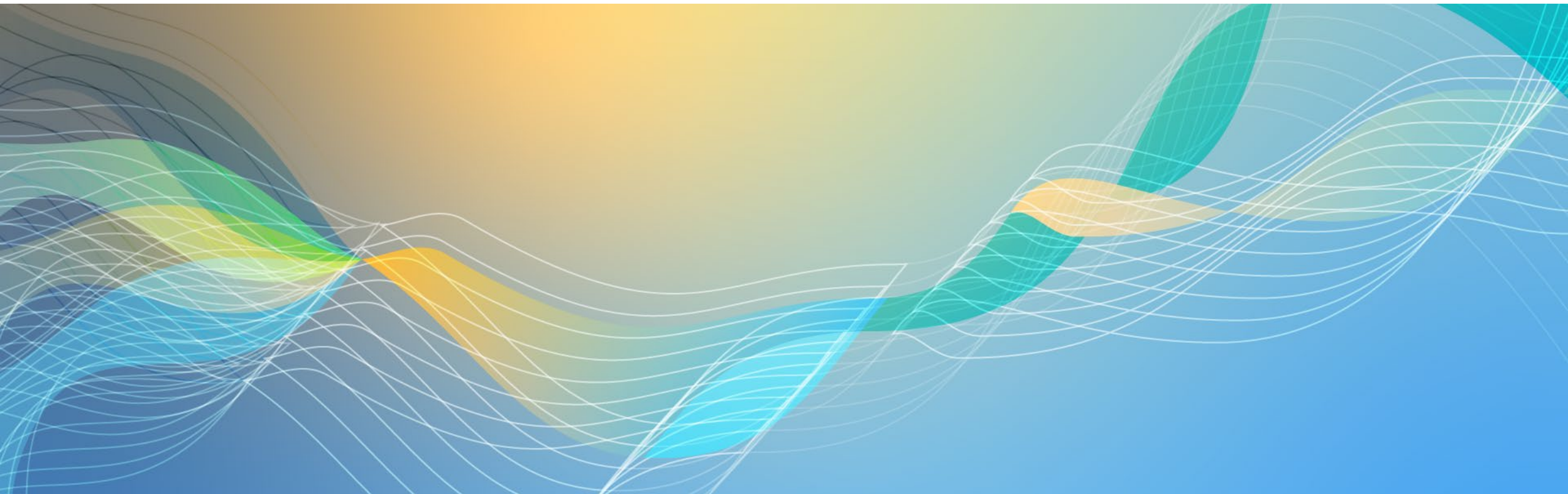


Results of 2024 Actuarial Audit

**Milliman Presentation for
Montana Teachers' Retirement System**

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Agenda

Scope of Actuarial Audit

Actuarial Audit Results

Areas of Review

- Membership Data
- Actuarial Value of Assets
- Actuarial Liabilities
- Funding
- Actuarial Assumptions
- Reports

Scope of Actuarial Audit

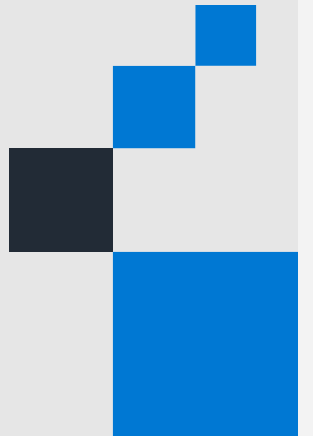
Review the July 1, 2024 actuarial valuation for the Montana Teachers' Retirement System (TRS)

- Determine if the retained actuary's valuation procedures are technically sound and based on generally accepted actuarial standards.
- Determine if the methodology used by the retained actuary to validate and "normalize" census data is technically sound and based on generally accepted actuarial standards.
- Determine if the retained actuary's determinations of demographic and economic actuarial assumptions are reasonable and are based on generally accepted actuarial standards.
- Determine if the actuarial cost method and actuarial asset valuation method used by the retained actuary are reasonable, including whether different methods may be more appropriate.
- Determine if the retained actuary's valuation results can be verified, including a full replication of the plan liabilities and valuation results.

Actuarial Audit Results

Based on our review of the census data, experience study document, liability replication, and actuarial valuation report, we believe the July 1, 2024 actuarial valuation for TRS is reasonable, based on reasonable assumptions and methods, and the reports generally comply with the Actuarial Standards of Practice.

We offer the following observations and recommendations that we believe would further enhance the communication and funding of TRS going forward.



Membership Data

Process

Compared the raw data supplied by TRS to the processed data used by the retained actuary in the actuarial valuation

Conclusion

Very close match between the data provided by TRS and the valuation data used by the retained actuary



Actuarial Value of Assets

Process

Reviewed the calculation of the actuarial value of assets (AVA) used in the July 1, 2024 actuarial valuation and compliance with Actuarial Standard of Practice (ASOP) No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*

Conclusion

Calculations are reasonable and the methodology is appropriate and in compliance with Actuarial Standards of Practice

Recommendation

We recommend the retained actuary review how administrative expenses are incorporated into the allocation of investment returns between immediate recognition and deferred recognition in the asset smoothing methodology.



Actuarial Liabilities

Process

Replicated TRS liabilities based on the same data, assumptions and methods used by the retained actuary as of July 1, 2024. Replicated a sample of individual liability calculations as well as the plan in total.

Conclusion

Actuarial accrued liability (AAL) calculations for TRS are reasonable

	TRS AAL Replication		
	Retained Actuary	Milliman	Ratio
Active participants	\$ 2,045.2	\$ 2,035.5	99.5%
Terminated members	187.5	184.4	98.3%
Annuitants	<u>4,792.9</u>	<u>4,845.7</u>	<u>101.1%</u>
Total	\$ 7,025.6	\$ 7,065.6	100.6%

Amounts in millions

Funding

Process

Reviewed the applicable calculations of the funding period and actuarially determined contributions for TRS

Conclusion

Communication of the funded status and contribution requirements for TRS is reasonable

Recommendation

Next time the Board reviews the Funding and Benefit Policy, we encourage the Board to work closely with the retained actuary to consider whether to reduce the high end of the reference amortization period from the current 30-year period

- Currently a 30-year period is scheduled to be used as a reference point until “the system becomes fully funded and has a stabilization reserve of at least 10% of actuarial accrued liability”
- The Board could consider beginning the transition to a lower reference amortization period sooner

Actuarial Assumptions

Process

Reviewed the economic assumptions used in the July 1, 2024 actuarial valuation and adopted based on the Actuarial Experience Study for the period ending June 30, 2021 for compliance with ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations* and ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*

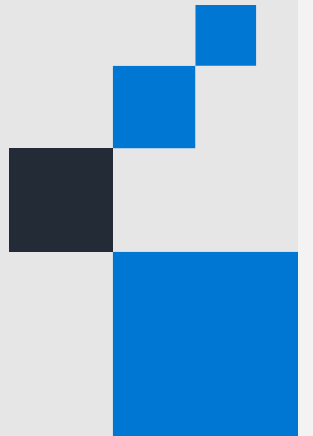
Conclusion

Assumptions are reasonable and meet the applicable Actuarial Standards of Practice

Recommendation

In future experience study reports, provide additional rationale for their recommendation of the “payroll growth” assumption and the “merit, promotion and longevity” salary increase assumption and ensure they follow a true “building block” approach

Closely review the sources of the sustained retirement and termination decrement losses in the next actuarial experience study and formulate a method to anticipate the losses in the actuarial valuation



Reports

Process

Reviewed retained actuary's reports for compliance with Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*, and ASOP No. 41, *Actuarial Communications*.

Conclusion

Reports meet the applicable Actuarial Standards of Practice

Recommendation

We recommended a series of improvements for the next valuation that will enhance the overall communication and disclosure in the actuarial valuation report

All recommendations are improvements to the reporting and would not impact the results of the valuation





Thank you

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