

_____ moves that the Legislative Commission on Pensions and Retirement (LCPR) approve changes to the demographic and economic assumptions used in the annual actuarial valuations, beginning with the July 1, 2024, valuation, of the following pension plans:

- Minnesota State Retirement System (MSRS) State Employees Retirement Plan
- Legislators Retirement Plan
- Public Employees Retirement Association (PERA) General Employees Retirement Plan
- Teachers Retirement Association (TRA)

Minnesota Statutes, Section 356.215, subdivision 18, paragraph (a), governs Commission approval of changes in the actuarial assumptions other than the investment rate of return:

Subd. 18. Establishment of actuarial assumptions. (a) The actuarial assumptions used for the preparation of actuarial valuations under this section that are other than the interest rate may be changed only with the approval of the Legislative Commission on Pensions and Retirement or after a period of one year has elapsed since the date on which the proposed assumption change or changes were received by the Legislative Commission on Pensions and Retirement without commission action.

The executive directors of MSRS, PERA, and TRA have submitted to the Commission letters requesting approval of the assumption changes, summarizing the changes, and referring to the 2018-2022 experience study for the specific changes. The letters, attached, are the following:

- Two letters from the executive director of MSRS, dated December 18, 2023, one regarding the MSRS General Plan and the other regarding the Legislators Retirement Plan;
- Letter from the executive director of PERA, dated September 8, 2023, regarding the PERA General Plan; and
- Memo from the executive director of TRA, September 14, 2023.

In addition to the letters, MSRS submitted a letter dated July 20, 2023, from the plan actuary, Gabriel Roeder Smith & Company (GRS), summarizing of the assumption changes for the Legislators Retirement Plan, and TRA submitted a chart by the plan actuary, Cavanaugh Macdonald Consulting (CM), summarizing the TRA assumption changes.

The complete experience study reports are available on the LCPR website and at the following links:

- [Experience Study Report](#) for the MSRS State Employees Retirement Fund
- [Experience Study Report](#) for the PERA General Employee Retirement Plan
- [Experience Study Report](#) for the Teachers Retirement Association

December 18, 2023

Via Electronic Mail

Susan Lenczewski, Executive Director
Legislative Commission on Pensions and Retirement
110 Rev. Dr. Martin Luther King Jr. Blvd.
State Office Building, Room 55
St. Paul, MN 55155

Dear Ms. Lenczewski:

At its September 21, 2023 meeting the Minnesota State Retirement System (MSRS) Board of Directors reviewed the results of the Experience Study report for the State Employees Retirement Fund or the MSRS General Employees Retirement Plan as it is commonly described. This study was conducted by MSRS' actuarial firm, Gabriel Roeder Smith & Company, and examined the period from July 1, 2014 through June 30, 2018.

Below is a summary of the MSRS Board approved economic and demographic assumption changes:

- Slightly lower merit and seniority payroll growth
- Decrease disability rates
- Decrease early retirement rates
- Increase normal retirement rates
- Reduce withdrawal rates in the first few years of service for both males and females
- Slight increase in withdrawal rates for males
- Decrease in withdrawal rates for females
- Utilize the newly published public sector mortality tables (PUB-2010) with the latest mortality improvement scale (MP-2021)
- Minor changes to forms of payment and marriage assumptions

The MSRS Board of Directors requests that the Legislative Commission on Pensions and Retirement approve the adoption of these recommendations. Detailed descriptions of these recommendations are provided in the Experience Study, a copy of which is on-file with the Commission.

Please let me know if you have any questions about the assumptions and the Board's request.

Sincerely,



Erin Leonard
Executive Director

December 18, 2023

Via Electronic Mail

Susan Lenczewski, Executive Director
Legislative Commission on Pensions and Retirement
110 Rev. Dr. Martin Luther King Jr. Blvd.
State Office Building, Room 55
St. Paul, MN 55155

Dear Ms. Lenczewski:

At its September 21, 2023 meeting the Minnesota State Retirement System (MSRS) Board of Directors reviewed and approved assumption changes for the Legislators Retirement Plan. Since this plan is closed to new members and had only seven active members as of July 1, 2023, full experience studies are no longer conducted. An occasional review of the plan's assumptions remains a best practice so MSRS' actuarial firm, Gabriel Roeder Smith & Company, recently conducted a review.

The MSRS Board approved the following recommended economic assumption and demographic assumption changes:

- Update mortality assumptions consistent with the mortality assumptions outlined in the State Employees Retirement Fund experience study report dated June 29, 2023.
 - Healthy Male Retirees: Pub-2010 Male Healthy Retired General Mortality Table, adjusted for mortality improvements using projection scale MP-2021. Rates are multiplied by a factor of 1.04.
 - Healthy Female Retirees: Pub-2010 Female Healthy Retired General Mortality Table, adjusted for mortality improvements using projection scale MP-2021. Rates are multiplied by a factor of 1.10.
 - Male Active Members: Pub-2010 Male General Employee Mortality Table adjusted for mortality improvements using projection scale MP-2021.
 - Female Active Members: Pub-2010 Female General Employee Mortality Table adjusted for mortality improvements using projection scale MP-2021.

The MSRS Board of Directors requests that the Legislative Commission on Pensions and Retirement approve the adoption of these recommendations. Detailed descriptions of these recommendations are included in the attached memo.

Please let me know if you have any questions about the assumptions and the Board's request.

Sincerely,



Erin Leonard
Executive Director



September 8, 2023

Susan Lenczewski, Executive Director
Legislative Commission on Pensions and Retirement

Dear Ms. Lenczewski,

Results from the General Employees Retirement Plan (the Plan) 4-Year Experience Study were presented by Gabriel Roeder Smith & Company (GRS) to the PERA Board of Trustees on August 10, 2023. The study covered the four year period from July 1, 2018 through June 30, 2022. The final report was issued June 29, 2023 and was previously sent to your attention.

The PERA Board of Trustees approved the actuarial assumption changes recommended by GRS in their final report at the August 10, 2023 board meeting. The approved recommended changes are outlined below:

Assumption	Proposed Change
Individual Merit and Seniority	Minor adjustments, resulting in slightly higher assumed merit and seniority increases overall.
Retirement Rates	Increase the rate of assumed unreduced retirements, lower the assumed Rule of 90 rates, and slightly increase assumed early retirement rates.
Termination Rates	Slightly increase assumed termination rates.
Disability Rates	Lower rates of disability.
Mortality Rates	Continue use of PUB-2010 General mortality table, with rates adjusted to better fit observed plan experience and with future improvement projected using scale MP-2021.
Other	Minor changes to assumptions made with respect to missing participant data and minor changes to form of payment assumptions.

The report also recommended consideration of an alternative to the current amortization policy, since the current method results in approximately five years of negative amortization and an increasing Unfunded Actuarial Accrued Liability (UAAL). Alternatives to consider include layered amortization, a shorter closed period, or applying a minimum amortization amount that is equal to interest on the UAAL. The distinction of this particular recommendation is that it is a recommendation to consider, as opposed to a recommendation to change. The PERA Board is not requesting a change to the amortization period at this time.

The GRS report also included a recommendation that "...the Minnesota Standards for Actuarial Practice be amended to be less prescriptive and more principle based so that the actuaries for the systems may use their best judgment to calculate contribution rates and liabilities in a mathematically consistent manner and in accordance with actuarial standards of practice." Since this change would also impact all other plans in the State, the PERA Board is not including it as a Board approved assumption for the General Employees Retirement Plan nor are they asking the LCPR to change the Minnesota Standards for Actuarial Practice at this time.

The estimated cost impact using expected July 1, 2022 results were provided by GRS in a separate letter dated July 28, 2023. The key results are as follows:

	Valuation Baseline	Update Interest Rate to 7.0%	Add Changes to Demographic Assumptions
Funding Ratio (Market Value of Assets Basis)	86.2%	81.5%	82.7%
Contribution Sufficiency (30-Year Amortization Basis)	3.3%	1.1%	1.6%

Minnesota Statutes Section 356.215, states that actuarial assumptions used for the preparation of actuarial valuations, other than the assumed rate of return, may only be changed with the approval of the LCPR or after a period of one year has elapsed since the date on which the proposed assumption change or changes were received by the LCPR without commission action.

The PERA Board of Trustees respectfully requests that the LCPR review the experience study recommendations and approve the changes adopted by the PERA Board. We further request that the Commission review and approve the recommended changes so that the revised assumptions may be used in the July 1, 2024 actuarial valuation.

Please contact me if we can provide any additional information to help with the evaluation process.

Sincerely,

Doug Anderson

Doug Anderson, EA, ASA, MAAA
Executive Director



Date: September 14, 2023

To: Susan Lenczewski
Executive Director, LCPR

From: Jay Stoffel
Executive Director, TRA

Subject: Experience Study Recommendations - Actuarial Assumption Revisions

In accordance with Minnesota Statutes, Section 356.215, subd. 2(a) and subd. 16, Cavanaugh Macdonald Consulting (CMC) performed a four-year experience study of TRA actuarial valuation assumptions and methods. The study covered a review of actual experience during the four-year period July 1, 2018 through June 30, 2022. The actuaries from CMC presented the results and recommendations at the August 16, 2023 TRA Board meeting. The recommendations were considered again at the September 13, 2023 TRA Board meeting and were unanimously approved.

The recommendations included a change to the investment return assumption which was lowered to 7.0% in the 2023 legislative session. Changes are also recommended to the following demographic assumptions:

- **Mortality:** Changes to the mortality tables used for pre-retirement members, healthy retirees, beneficiaries, and disabled members.
- For coordinated members, changes to the rate of early reduced benefits, unreduced benefits, and the form of payment selected at time of retirement.
- **Termination of employment:** Changes to the rates of termination of employment to better match observed experience.
- **Disability:** Reduced rates at ages 45 and older to better match observed experience.

At the August 16 Board meeting the TRA Board reviewed the impact of the entire set of recommended changes on the funded ratio and required contributions, using the July 1, 2022 valuation. CMC estimates the changes would reduce the funded ratio from 82.0% to 79.3%; and reduce the contribution deficiency to 0.8% of covered payroll. The actuarial gain from investment returns in fiscal year 2023 will offset some of the impact of these changes.

Attached is a table showing current assumptions/rates and the new, proposed assumptions/rates.

The TRA Board of Trustees respectfully requests that the Legislative Commission on Pensions and Retirement review and approve the new assumptions adopted by the TRA Board. Ideally, LCPR approval would occur in time for the TRA to use the new set of assumptions for the July 1, 2024 actuarial valuation. That work will begin in the summer of 2024.

Please let me know if you or commission members have any questions or need additional information.



July 20, 2023

Ms. Erin Leonard
Executive Director
Minnesota State Retirement System
60 Empire Drive, Suite 300
St. Paul, Minnesota 55103

Re: Legislators Plan

Dear Ms. Leonard:

In general, we suggest reviewing actuarial assumptions for all plans on a regular basis. We recently completed an experience study for the MSRS General Plan. The Legislators Plan is funded on a pay-as-you-go basis, is closed to new members, and has only 12 active members as of July 1, 2022. Although full experience studies are no longer conducted for this plan due to limited data credibility, a review of assumptions is warranted.

We recommend the following assumption changes for the Legislators Plan:

- 1) Update mortality assumptions consistent with the mortality assumptions outlined in the State Employees Retirement Fund experience study report dated June 29, 2023.
 - a. Healthy Male Retirees: Pub-2010 Male Healthy Retired General Mortality Table, adjusted for mortality improvements using projection scale MP-2021. Rates are multiplied by a factor of 1.04.
 - b. Healthy Female Retirees: Pub-2010 Female Healthy Retired General Mortality Table, adjusted for mortality improvements using projection scale MP-2021. Rates are multiplied by a factor of 1.10.
 - c. Male Active Members: Pub-2010 Male General Employee Mortality Table adjusted for mortality improvements using projection scale MP-2021.
 - d. Female Active Members: Pub-2010 Female General Employee Mortality Table adjusted for mortality improvements using projection scale MP-2021.

Ms. Erin Leonard
Minnesota State Retirement System
July 20, 2023
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Please let us know if you would like to discuss this information.

Sincerely,
Gabriel, Roeder, Smith & Company

Bonita J. Wurst

Bonita J. Wurst, ASA, EA, FCA, MAAA

Sheryl Christensen

Sheryl L. Christensen, FSA, EA, FCA, MAAA

BJW/SLC:sc





Teachers Retirement Association of Minnesota
Summary of Current and Recommended Assumptions

	Current	Recommended
Economic Assumptions		
<u>Investment Return</u>	7.50%	7.00%
Demographic Assumptions		
<u>Pre-Retirement Mortality</u>	RP-2014 White Collar Employee Table, male rates set back 5 years and female rates set back 7 years. Generational projection with the MP-2015 scale.	PubT-2010(A) Employee Mortality Table, male rates set forward 1 year and female rates unadjusted. Generational projection with the MP-2021 scale.
<u>Healthy Retirees Mortality</u>	RP-2014 White Collar Annuitant Table, male rates set back 3 years and female rates set back 3 years, with further adjustments to fit actual TRA experience. Generational projection with the MP-2015 scale.	PubT-2010(A) Retiree Mortality Table, male rates set forward 1 year and female rates unadjusted. Generational projection with the MP-2021 scale.
<u>Beneficiaries Mortality</u>	RP-2014 White Collar Annuitant Table, male rates set back 3 years and female rates set back 3 years, with further adjustments to fit actual TRA experience. Generational projection with the MP-2015 scale.	PubT-2010(A) Contingent Survivor Mortality Table, male rates set forward 1 year and female rates unadjusted. Generational projection with the MP-2021 scale.
<u>Disabled Retirees Mortality</u>	RP-2014 Disabled Retiree Mortality Table without adjustment or generational improvement.	PubNS-2010 Disabled Retiree Mortality Table, male rates set forward 1 year and female rates unadjusted. Generational projection with the MP-2021 scale.



	Current	Recommended
Demographic Assumptions		
<u>Retirement</u>		
<u>Coordinated Members</u>		
➤ Tier 1 Early	As shown in report	No change
➤ Tier 1 Unreduced	As shown in report	Change rate at age 66 from 35% to 40% and the rate at age 70 from 35% to 30%. New rates shown in report.
➤ Tier 2 Early	As shown in report	Increase in rates at most ages at or above 60. New rates shown in report.
➤ Tier 2 Unreduced	As shown in report	Change rates at ages 68 and 69 from 25% to 30% and set rate at age 65 to 45%. New rates shown in report.
➤ Form of Payment		
○ Males	10.0% elect 50% J&S option 10.0% elect 75% J&S option 60.0% elect 100% J&S option 20.0% elect Straight Life option	10.0% elect 50% J&S option 5.0% elect 75% J&S option 70.0% elect 100% J&S option 15.0% elect Straight Life option
○ Females	13.5% elect 50% J&S option 6.5% elect 75% J&S option 38.0% elect 100% J&S option 42.0% elect Straight Life option	10.0% elect 50% J&S option 5.0% elect 75% J&S option 45.0% elect 100% J&S option 40.0% elect Straight Life option
<u>Termination</u>	As shown in report	Reduce rates during the first ten years of employment and increase some of the rates from years 15 to 20. New rates shown in report.
<u>Disability</u>	As shown in report	Reduce rates at ages 45 and older by 15%. New rates shown in report.