

Motion

_____ moves the approval of changes to the actuarial assumptions used in the annual actuarial valuations of the St. Paul Teachers Retirement Fund Association (the “Association”), effective beginning with the actuarial valuation as of July 1, 2023, as identified in the attached letter dated January 13, 2023, from F. Michael McCollor, Interim Executive Director of the Association. As noted in the letter, the assumption changes were recommended by Gabriel Roeder Smith & Company (“GRS”), the Association’s actuary, and approved by the Association’s board of trustees.

Note from Commission staff:

Under Minnesota Statutes, Section [356.215, Subdivision 18](#), changes to actuarial assumptions must be approved by the Legislative Commission on Pensions and Retirement if they are to take effect for the next annual actuarial valuation for the affected plan. If the Commission takes no action on the request, the assumptions take effect a year after the date the proposed assumption changes were received by the Commission.

For St. Paul Teachers Retirement Fund Association, the need for changes in the actuarial assumptions is a result of the experience study conducted by GRS for the period July 1, 2016, through June 30, 2021. The experience study compared actual experience to the assumptions in effect and identified changes that need to be made to align the assumptions with actual experience.

Copies of the “Overview and Summary of Results,” which is Section A of the report on the experience study, were delivered to members of the Commission. The entire report is publicly available on the LCPR website (www.lcpr.leg.mn/experience.htm).

Actuarial assumptions for which a change is requested include:

- Payroll growth
- Merit and seniority rates
- Retirement rates
- Withdrawal rates
- Disability rates
- Mortality tables
- Mortality improvement scale

St. Paul Teachers' Retirement Fund Association

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January 13, 2023

Susan Lenczewski, Executive Director
Legislative Commission on Pension and Retirement
600 State Office Building
100 Rev. Dr. Martin Luther King, Jr. Blvd
St. Paul, MN 55155

Dear Ms. Lenczewski:

The St. Paul Teachers Retirement Association Board of Trustees met on December 14, 2022 to review the results of Experience Study completed by SPTRFA's actuarial firm, Gabriel Roeder Smith & Co. The Board unanimously approved the following six Experience Study recommendations summarized below:

- Decrease the current **investment return assumption** from 7.5% to **7.0%**, see page B-13.
- Decrease the **payroll growth** assumption from 3.00% to **2.50%**, see page B-6.
- Adjust **rates of merit and seniority**, resulting in an overall decrease to the assumed rates of merit and seniority increases, see section C.
- Adjust the **assumed retirement rates** and **rates of withdrawal**, see sections D and E, respectively.
- Decrease the assumed **rates of disability** by 31%, see page F-1.
- Change the **mortality table** to the standard Pub-2010 teacher mortality tables, adjusted for mortality improvements using projection scale MP-2021, see page G-3.

Details regarding each of the recommendations is included in the attached Experience Study. The SPTRFA Board respectfully requests that the LCPR approve the changes adopted by the SPTRFA Board and include such changes, where required to be reflected in statute, for use in SPTRFA's FY 2023 actuarial valuation report.

We would be happy to address any questions you may have. Please feel free to contact me or Christine MacDonald by email or phone at 651-642-2550.

Respectfully,



F. Michael McCollor
Interim Executive Director

St. Paul Teachers' Retirement Fund Association

5-Year Experience Study

July 1, 2016 through June 30, 2021





December 8, 2022

Board of Trustees
St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Dear Board Members:

The results of the five-year **actuarial experience study** of the St. Paul Teachers' Retirement Fund Association (SPTRFA) are presented in this report. The investigation was conducted for the purpose of updating the actuarial assumptions used in valuing the actuarial liabilities.

The investigation was based upon the statistical data furnished for annual active member and retired life actuarial valuations concerning members who died, withdrew, became disabled or retired during the five-year period of the study by the St. Paul Teachers' Retirement Fund Association (SPTRFA). We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by SPTRFA.

The investigation covered the five-year period from **July 1, 2016 to June 30, 2021**, and was carried out using generally accepted actuarial principles and techniques.

We believe that the actuarial assumptions recommended in this experience study report represent individually and in the aggregate reasonable estimates of future experience of the St. Paul Teachers' Retirement Fund Association.

This report should not be relied on for any purpose other than that described above. It was prepared at the request of SPTRFA and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than SPTRFA only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge and belief, the information contained in this report was performed in accordance with Minnesota Statutes Section 356.215 and the requirements of the Standards for Actuarial Work established by the Legislative Commission on Pensions and Retirement. We certify that, to the best of our knowledge, this report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board.

Board of Trustees
St. Paul Teachers' Retirement Fund Association
December 8, 2022
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Bonita J. Wurst and Sheryl L. Christensen are independent of the plan sponsor and are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. In addition, Gabriel, Roeder, Smith & Company meets the requirements of "approved actuary" under Minnesota Statutes Section 356.215, Subdivision 1, Paragraph (c).

Respectfully submitted,
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:dj



Actuarial Experience Study 2016-2021

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SECTION A

OVERVIEW AND SUMMARY OF RESULTS

Introduction

Each year as of June 30, the actuarial liabilities of the System are valued. In order to perform the valuation, assumptions must be made regarding the future experience of the System with regard to the following risk areas:

- Rates of **termination** of active members (leaving before eligible to retire);
- Rates of **disability** among active members;
- Patterns of **pay increases** to active members;
- Rates of **retirement** among active members;
- Rates of **mortality** among active members, retirees, and beneficiaries; and
- Long-term rates of **investment return** to be generated by the assets of the System.

Assumptions should be carefully chosen and continually monitored. An unrealistic set of assumptions can lead to:

- Understated costs resulting in either an inability to pay benefits when due, or gradual increases in required contributions as time progresses; and
- Overstated costs resulting in an unnecessarily large burden on the current generation of employers and taxpayers.

All actuarial assumptions are prescribed by Minnesota Statutes, the Legislative Commission on Pensions and Retirement or the SPTRFA Board of Trustees.

A single set of assumptions will not be suitable indefinitely. Things change, and our understanding of things (whether or not they are changing) also changes. The package of assumptions is then adjusted to reflect basic experience trends -- but not random year to year fluctuations. Actuarial assumptions were last revised for the June 30, 2018 actuarial valuations based on the results of the most recent experience study. In addition, the mortality improvement projection scale has been updated for each valuation since 2018. Assumptions in effect prior to June 30, 2021 are ignored for purposes of this report.

No single experience period should be given full credibility in the setting of actuarial valuation assumptions. When we see significant differences between what is expected from our assumptions and the actual experience, we generally recommend a change in assumptions that produces results somewhere between the actual and expected experience. In this way, with each experience study the actuarial assumptions become better and better representations of actual experience. Consequently, temporary conditions that might influence a particular experience study period will not unduly influence the choice of long-term assumptions.

We are recommending certain changes in assumptions and methods. The various assumption changes are described on the following pages.

Summary of Recommended Changes

The five-year period (July 1, 2016 to June 30, 2021) covered by this experience study provided sufficient data to form a basis for recommending changes in some of the assumptions and/or methods used in actuarial valuations of the St. Paul Teachers' Retirement Fund Association (SPTRFA). The recommended changes in actuarial assumptions and methods resulting from this experience study are summarized below:

- Decrease the current 7.5% investment return assumption to an investment return assumption in the range of 5.85% to 7.00%. Selection of an investment return assumption at the upper end of this range results in a higher risk of increased actuarial contributions in the future.
- Decrease the wage inflation (i.e., payroll growth) assumption from 3.00% to 2.50%, and study future population expectations.
- Adjust rates of merit and seniority, resulting in an overall decrease to the assumed rates of merit and seniority increases:
 - Proposed rates are 0.50% and 0.75% less than the current rates in the first two years of employment; minor adjustments to the current rates after the second year of employment.
 - Average proposed rate averages are approximately 0.2% less than current rate.
 - When combined with the proposed reduction in wage inflation, proposed salary increase rates average approximately 0.7% lower than the current rates.
- Adjust assumed retirement rates:
 - For unreduced retirements (i.e., Normal Retirement), increase the rates at ages 66 and 67 and reduce the rates at ages 68 and 69, for both males and females. Proposed rates reflect, in total, slightly more Normal Retirements.
 - For Rule of 90 retirements, proposed Rule of 90 rates result in a better fit at certain ages but approximately the same number of projected Rule of 90 retirements in total.
 - Decrease the assumed early retirement rates for both males and females:
 - For males, proposed rates reflect fewer retirements below age 58 and between ages 61 and 64. Total proposed rates will produce approximately 18% fewer retirements.
 - For females, proposed rates reflect fewer retirements at age 58 and age 61 to 64, and more retirements at age 59 and 65. Total proposed rates will produce approximately 5% fewer retirements.
 - Change the retirement age assumption for Coordinated deferred members from age 62 to age 63.
- Change the assumed rates of termination (termination of membership before eligible to retire):
 - Generally, proposed rates are lower than current rates, especially after the first year of employment for both males and females.
 - Total proposed rates will reduce liability decrementing due to termination by approximately 28% for males and 21% for females.
- Decrease the assumed rates of disability by 31% in total, with more dramatic reduction in rates after age 50.
- Change the base mortality table to the PUB-2010 mortality table for Teachers, with rates adjusted for some tables in order to better fit observed plan experience and with future improvement projected using scale MP-2021; results in an overall decrease in assumed mortality for male retirees and a slight overall increase in assumed mortality for female retirees.
- Limit the payroll growth assumption used to determine the contribution toward the unfunded actuarial accrued liability to the actual plan average for the last ten years.

Summary of Decrement Experience 2016-2021

Decrement Risk Area	Actual Number	Expected		
		Current Assumptions	Proposed Assumptions	Change
<i>Retirement</i>				
Normal Retirement* - Male	21	19.60	20.25	0.65
- Female	100	88.76	94.80	6.04
Rule of 90 Retirements - Male	34	29.90	31.60	1.70
- Female	140	139.70	138.75	(0.95)
Early Retirements - Male	54	83.37	68.73	(14.64)
- Female	216	229.27	217.57	(11.70)
<i>Termination (\$000s)**</i>				
Males	19,163	31,616.79	22,705.12	(8,911.67)
Females	61,835	97,937.18	76,980.21	(20,956.97)
<i>Disability (males and females)</i>	3	12.53	8.64	(3.89)
<i>Mortality (\$000s)**</i>				
Healthy Retired Lives - Male	6,979	7,188.85	6,644.68	(544.17)
- Female	7,375	6,380.59	6,518.66	138.07
Active Lives - Male	564	1,328.74	1,057.36	(271.38)
- Female	756	3,280.72	2,438.76	(841.96)

* Normal retirements less than age 70. See Section D for full detail.

** Results are liability-weighted for termination and pre-retirement mortality and benefit-weighted for post-retirement mortality.

