



## INDEPENDENT FISCAL OFFICE

**TO:** Governor Josh Shapiro  
All Members of the General Assembly

**FROM:** Matthew Knittel, Director  
Independent Fiscal Office

**DATE:** April 9, 2026

**RE:** Actuarial Note for House Bill 411, Printer's Number 985 Amendment A02569

---

The Independent Fiscal Office (IFO) submits an actuarial note for **Amendment A02569 to House Bill 411, Printer's Number 985** in accordance with section 615-B of the Administrative Code of 1929. Amendment A02569 changes the commencement date of the proposed cost-of-living adjustments to July 1, 2026 (previously July 1, 2025) for the State Employees' Retirement System (SERS) and Public School Employees' Retirement System (PSERS). Due to the material impact of the amendment, the IFO submitted a formal request to its contracted actuary (Milliman) for an actuarial note. A copy of that note is attached, along with notes prepared by SERS and PSERS in response to a data request made by the IFO on March 9, 2026.

### Summary of Provisions

The legislation would amend Title 24 (Education) and Title 71 (State Government) to provide supplemental annuities to individuals who retired prior to July 2, 2001 for SERS and PSERS.

- Supplemental annuities would begin on July 1, 2026 for eligible SERS and PSERS annuitants.
- Eligible annuitants must (1) receive an annuity by July 1, 2026; (2) be retired prior to July 2, 2001; and (3) have no disqualifying credited service (for PSERS class T-D service, or multiple service members with D-4 or Class AA service; for SERS D-4 or Class AA service, or multiple service members with class T-D service).
- Beneficiaries and survivor annuitants of members who die prior to July 1, 2026 would not be eligible.
- The unfunded actuarial liability due to the benefit increase would be amortized through level dollar payments over a period of 10 years beginning July 1, 2027 for PSERS, unless an alternative method is provided by state law; and the first July 1 after the valuation date coincident with or next following the date the legislation is enacted for SERS (assumed as July 1, 2027).
- The amount of the supplemental annuity is based on the most recent date of retirement for the individual. The full schedule is as follows:

Retirement Effective Date	Annuity Increase (%)	Retirement Effective Date	Annuity Increase (%)
7/2/2000 - 7/1/2001	15.0	7/2/1990 - 7/1/1991	20.0
7/2/1999 - 7/1/2000	15.5	7/2/1989 - 7/1/1990	20.5
7/2/1998 - 7/1/1999	16.0	7/2/1988 - 7/1/1989	21.0
7/2/1997 - 7/1/1998	16.5	7/2/1987 - 7/1/1988	21.5
7/2/1996 - 7/1/1997	17.0	7/2/1986 - 7/1/1987	22.0
7/2/1995 - 7/1/1996	17.5	7/2/1985 - 7/1/1986	22.5
7/2/1994 - 7/1/1995	18.0	7/2/1984 - 7/1/1985	23.0
7/2/1993 - 7/1/1994	18.5	7/2/1983 - 7/1/1984	23.5
7/2/1992 - 7/1/1993	19.0	7/2/1982 - 7/1/1983	24.0
7/2/1991 - 7/1/1992	19.5	Prior to 7/2/1982	24.5

**Review of Findings**

The legislation would enact supplemental annuities for individuals who retired prior to July 2, 2001 for SERS and PSERS. Valuations for SERS occur on a calendar year basis, while PSERS occur on a fiscal year (FY) basis. For both systems, adjustments to the employer contribution rate would start in FY 2027-28. The projected impacts are as follows:

Impact on SERS:

- Individuals impacted: 19,953
- Average age of eligible retiree: 81.1
- Average increase in annuity for first year: \$2,275 (\$190 monthly)<sup>1</sup>
- Total projected benefit increases paid over lifetime: \$385.2 million
- Initial change in unfunded actuarial liability (UAL): \$271.1 million
- Initial change in funded ratio: -0.3% (70.1% to 69.8%)
- Initial change in employer contribution rate: 0.5% (32.3% to 32.8%)
- Annual amortized cost (10 years): \$38.4 million

Impact on PSERS:

- Individuals impacted: 34,190
- Average age of eligible retiree: 84.4
- Average increase in annuity for first year: \$2,985 (\$250 monthly)<sup>1</sup>
- Total projected benefit increases paid over lifetime: \$836.3 million
- Initial change in unfunded actuarial liability (UAL): \$582.9 million
- Initial change in funded ratio: -0.3% (68.7% to 68.4%)
- Initial change in employer contribution rate: 0.5% (34.1% to 34.6%)
- Annual amortized cost (10 years): \$88.8 million

<sup>1</sup> Based on estimates of the number of initial beneficiaries and annualized first-year payments as provided by the systems.

Costs to SERS and PSERS directly impact the state’s General Fund. While the bullets on the previous page summarize the long-term impact on the systems, the table below displays the estimated impact on the General Fund over the next five fiscal years (FY 2026-27 through FY 2030-31).<sup>2</sup> Amortization payments for both systems are projected to begin July 1, 2027, so there is no cost to employers (state agencies and public school districts) in the first fiscal year (FY 2026-27). In total, the legislation increases projected General Fund expenditures by \$272 million over the next five fiscal years.

<b>General Fund Impact: HB 411 PN 985 A02569</b>			
	<b>Total Impact</b>	<b>General Fund</b>	
		<b>Share</b>	<b>Cost</b>
<u>SERS</u>			
Annual Amortization	\$38.4	49%	\$19.0
FY 26-27 to FY 30-31	\$153.6	49%	\$75.9
<u>PSERS</u>			
Annual Amortization	\$88.8	55%	\$49.1
FY 26-27 to FY 30-31	\$355.2	55%	\$196.3
<u>Total</u>			
Annual Amortization	\$127.2	53%	\$68.0
FY 26-27 to FY 30-31	\$508.8	53%	\$272.1
Note: Dollars in millions. Legislation directs costs to be amortized over ten years in equal dollar amounts beginning in FY 2027-28. Five-year figures above represent approximately 40% of total amortization costs.			

The Milliman analysis notes the following issues:

- The amendment would have a negative cash flow impact until FY 2034-35 for PSERS and calendar year 2035 for SERS. The additional COLA benefits initially exceed the additional contributions that would be paid to the systems, reducing the systems’ assets in the short-term.
- Section 8348.8(f) of the amendment provides that the cost of the supplemental annuities would be funded in equal dollar installments over a period of 10 years. However, §8328(d)(2) in the PSERS code indicates that increases in benefits due to supplemental annuities shall be funded as a level percentage of compensation over a period of 10 years from the July 1 second succeeding the date such legislation is enacted.

<sup>2</sup> See: [General Fund Impact Methodology](#), Independent Fiscal Office (2025).



801 Cassatt Road  
Suite 111  
Berwyn, PA 19312  
USA

Tel +1 610 687 5644

milliman.com

April 7, 2026

Mr. Matthew Knittel  
Director  
Pennsylvania Independent Fiscal Office  
Second Floor  
Rachel Carson State Office Building  
400 Market Street  
Harrisburg, PA 17105

Re: Amendment A02569 to House Bill 411, Printer's Number 985

Dear Mr. Knittel:

As you requested, we have prepared an actuarial note on Amendment A02569 to House Bill 411, Printer's Number 985. The Amendment would amend both the Public School Employees' Retirement Code and the State Employees' Retirement Code to provide for an ad hoc cost-of-living-adjustment (COLA) (e.g. supplemental annuities) commencing July 1, 2026 to retirees of both systems with an effective date of retirement prior to July 2, 2001.

This actuarial note is based on the March 20, 2026 estimate by Gallagher Benefit Services, Inc. (Gallagher) for PSERS and the March 23, 2026 estimate by Gabriel, Roeder, Smith & Company (GRS) for SERS of the impact of this Amendment, provided to us by the IFO. In addition, Gallagher and GRS have provided us with additional details regarding their cost estimates. We appreciate their cooperation in providing this information on a timely basis.

After a brief summary of the Amendment and the estimated actuarial cost, the section "Discussion of the Amendment" discusses items the legislators may wish to consider prior to enactment, such as mitigating the negative cash flow impact of this Amendment. This section starts on page 3.

### **Summary of the Amendment**

This Amendment would provide a benefit increase to retirees with an effective date of retirement prior to July 2, 2001 in the Public School Employees' Retirement System (PSERS) and the State Employees' Retirement System (SERS) ranging from 15% to 24.5% of the member's benefit at July 1, 2026 based on the member's date of retirement. The benefit increase would be effective with the first monthly payment after July 1, 2026.

The unfunded actuarial accrued liability resulting from the benefit increase would be amortized through level dollar payments over a period of 10 years beginning July 1, 2027.

This analysis was prepared solely for the Pennsylvania Independent Fiscal Office and may not be appropriate for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.



We have confirmed the Amendment's provisions summarized in the estimates for both PSERS and SERS. Please refer to the Amendment and House Bill 411, Printer's Number 985 and the Systems' estimates for more information on the potential changes.

### Review of Estimated Actuarial Cost Prepared by System Actuaries

The cost estimates prepared by Gallagher and GRS contain the estimated increase in the actuarial accrued liability and the corresponding 10-year amortization beginning July 1, 2027. We have reviewed the estimates for both PSERS and SERS and found that they appear to be reasonable.

Gallagher and GRS indicated that the number of eligible retirees is 34,190 in PSERS based on data as of June 30, 2025 and 19,953 in SERS based on data as of December 31, 2025, respectively. The actual number of eligible retirees who would receive the increased benefits if the Amendment were enacted would depend on how many remain in pay status as of July 1, 2026. We have not been provided with the underlying data files to review the accuracy of these calculations and have relied upon them in our analysis.

Based on these estimates for PSERS and SERS, the table below contains the estimated increase in the unfunded actuarial accrued liability and the first year of increased amortization payments due to this Amendment. Since the Amendment would only affect retired members, there would be no change in the normal cost.

### Estimated Actuarial Cost of Amendment A02569 to House Bill 411, Printer's Number 985 (\$ amounts in millions)

	PSERS	SERS
Increase in Unfunded Actuarial Accrued Liability as of June 30, 2026 for PSERS and December 31, 2026 for SERS	\$582.9	\$271.1
Increase in First Year Amortization Payment		
2027/2028 Contribution Amount	88.8	38.4
2027/2028 Contribution Rate	0.52%	0.46%

Based on the information provided for PSERS and SERS, the Amendment would result in a decrease in the funded ratio. The projected PSERS' funded ratio as of June 30, 2026 would decline by 0.3% from 68.7% to 68.4%. The projected SERS' funded ratio as of December 31, 2026 would decline by 0.3% from 70.1% to 69.8%.

This analysis was prepared solely for the Pennsylvania Independent Fiscal Office and may not be appropriate for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

The cost of this Amendment was determined independently of any other bill or amendment that may impact benefits paid to current retirees. To the extent that the increases proposed in this Amendment apply to benefits provided in other bills or amendments, additional costs for these changes may apply.

### **Discussion of the Amendment**

This Amendment would grant COLAs to retirees who retired prior to the 25% benefit increase under Act 9 of 2001. Such retirees last received a supplemental annuity effective July 1, 2002 if retired prior to July 2, 1990 and July 1, 2003 if retired after July 1, 1990.

#### *Negative Cash Flow*

If enacted as drafted, this Amendment would have a negative cash flow impact on both Systems until FY 2034-2035 for PSERS and calendar year 2035 for SERS. In other words, the additional benefits that would be paid due to this Amendment are initially more than the additional contributions that would be paid to the Systems, reducing the Systems' assets in the short-term. Prior to enactment, consideration should be given to revising the funding of the increased benefits to mitigate the negative cash flow impact.

Potential options to mitigate the impact include:

- Shortening the 10-year amortization period used to determine the additional contributions
- Delaying the effective commencement date from July 1, 2026 to the corresponding funding start date of July 1, 2027
- Accelerating the funding start date from July 1, 2027 to July 1, 2026 to correspond with the effective commencement date

#### *Amortization Period*

In August 2024, the Conference of Consulting Actuaries Public Plans Community released a second edition of a white paper titled *Actuarial Funding Policies and Practices for Public Pension Plans* ("CCA White Paper"), which is available at <https://www.ccactuaries.org/docs/default-source/papers/CCA-Actuarial-Funding-Policies-for-Public-Plans-2-Final-8-2024.pdf>. This white paper provides "guidance to actuaries, policymakers, and other interested parties on the development of actuarial funding policies for public pension plans", which could be helpful to the legislature.

This Amendment would fund the increases due to these supplemental annuities in equal dollar installments over a 10-year period starting July 1, 2027. The CCA White Paper recommends that plan amendments impacting inactive member benefits (such as increases due to supplemental annuities) be amortized over a period no longer than retiree life expectancy. The CCA White Paper also recommends that the amortization period should control for negative cash flow where additional amortization payments are less than additional benefit payments.

This analysis was prepared solely for the Pennsylvania Independent Fiscal Office and may not be appropriate for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

While the estimated life expectancy of the eligible retirees is approximately 9 years as of June 30, 2025 for PSERS and 10 years as of December 31, 2025 for SERS as reported by the Systems' actuaries, this calculation does not take into account that older retirees would receive higher benefit increases under the Amendment, lost interest on the supplemental annuities, nor that the funding for this potential COLA would result in a projected negative cash flow. This Amendment is projected to result in lower asset values until the years ending June 30, 2035 for PSERS and December 31, 2035 for SERS.

To mitigate the impact of negative cash flow, we believe that it would be preferable to shorten the amortization period to 5 years for this Amendment.

#### *Potential Conflict in type of amortization in PSERS*

As the PSERS' actuary indicates in their cost estimate, the Amendment provides that the cost of these supplemental annuities would be funded in equal dollar installments over a period of 10 years in §8348.8(f). However, §8328(d)(2) in the PSERS code indicates that increases in benefits due to supplemental annuities shall be funded as a level percentage of compensation over a period of ten years from the July 1 second succeeding the date such legislation is enacted.

The cost estimate prepared by the System actuary reflects a 10-year level dollar amortization. We believe that the level dollar approach is more appropriate in this situation.

#### *Potential Risks*

Both Systems' actuaries included information on the potential risks in their cost estimates. We encourage the legislature to consider these risks prior to enactment. In particular, the PSERS actuary Gallagher notes that granting benefit improvements may increase the impact of longevity risk due to larger benefits being paid for longer than expected. The SERS actuary GRS indicated that if the assumed mortality rates were lowered by 5%, thereby increasing life expectancy, then the increase in the liability for the increased benefits would be 2.5% higher.

#### **Basis for Analysis**

In performing this analysis, we have relied on the information provided by the IFO, PSERS, SERS, Gallagher, and GRS. We have not audited or verified this data and other information. If the data or information is inaccurate or incomplete, the results of this analysis may likewise be inaccurate or incomplete.

We performed a limited review of the cost estimates prepared by Gallagher and GRS as provided by the IFO, PSERS, and SERS for reasonableness and consistency and have not found material defects. If there are material defects, it is possible that they would be uncovered by a detailed, systematic review and comparison to search for values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

This analysis was prepared solely for the Pennsylvania Independent Fiscal Office and may not be appropriate for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

Future actuarial measurements may differ significantly from the current measurements presented in this analysis due to actual plan experience deviating from the actuarial assumptions, the natural operation of the plan's actuarial cost method, and changes in plan provisions, actuarial assumptions, actuarial methods, and applicable law. An assessment of the potential range and cost effect of such differences is beyond the scope of this analysis.

As the reviewing actuary, Milliman is not required to provide a risk disclosure under Actuarial Standard of Practice No. 51 *Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions* nor the additional disclosures required for funding valuations under Actuarial Standard of Practice No. 4 *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*.

Milliman's work is prepared solely for the internal business use of the Pennsylvania Independent Fiscal Office. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- The IFO may provide a copy of Milliman's work, in its entirety, to its professional service providers who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to provide services to the IFO.
- The IFO may provide a copy of Milliman's work, in its entirety, any applicable regulatory or governmental agency, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. We have not explored any legal issues with respect to the proposed changes. We are not attorneys and cannot give legal advice on such issues. We suggest that you review this proposal with counsel.

We are members of the American Academy of Actuaries and meet its Qualification Standards to render this actuarial opinion.

This analysis was prepared solely for the Pennsylvania Independent Fiscal Office and may not be appropriate for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.



Please let us know if we can provide any additional information regarding this Amendment.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy J. Nugent".

Timothy J. Nugent

A handwritten signature in black ink, appearing to read "Scott F. Porter".

Scott F. Porter

A handwritten signature in blue ink, appearing to read "Katherine A. Warren".

Katherine A. Warren

78IFO01-69  
ltr202604\_A02569toHB411\_SupplementalAnnuities.docx

# Actuarial Cost Note Regarding H.B. 411, P.N. 985, Amendment A02569 To Estimate the Cost Impact of a Proposed Cost of Living Adjustment to the Pennsylvania State Employees Retirement System

**March 23, 2026**

The following is an actuarial cost note which describes and presents the estimated cost impact of proposed legislation (under House Bill 411, Printer's Number 985, Amendment A02569) that would provide a Cost-of-Living Adjustment (COLA) to certain retired members of the Pennsylvania State Employees' Retirement System (SERS), commencing with the first monthly annuity payment after July 1, 2026.

## Design of the COLA

If this bill became law, retired members meeting all three (3) of these conditions would be eligible for the COLA:

- The retired member must be either a retiree who has reached superannuation age or a disabled retiree or an early retiree (who would become eligible for the COLA upon reaching superannuation age) receiving an annuity on July 1, 2026;
- The retired member's most recent effective date of retirement would have to be prior to July 2, 2001; and
- The retired member's credited service may not include any service credited as Class T-D, Class AA or Class D-4.

If enacted, the amount of the COLA increase, which would commence with the first monthly annuity payment after July 1, 2026, will be determined as a percentage of the amount of the monthly annuity payment on July 1, 2026, such percentage being specifically prescribed on the basis of the eligible member's most recent effective date of retirement. Table 1 on the following page provides the specific COLA increase percentages and effective dates of retirement proposed under this bill.

Other noteworthy provisions relating to the design of this proposed COLA include:

- Beneficiaries or survivors of members who die before July 1, 2026 are not eligible and
- The COLA will be payable under the same terms and conditions as provided under the option plan in effect as of July 1, 2026.

## Funding of the COLA

The bill states that the funding of the COLA will be based on §5508(e)(2). The relevant text follows:

In the event that supplemental annuities are increased by legislation enacted subsequent to December 31, 2009, the additional liability for the increase in benefits shall be funded in equal dollar installments as a percentage of compensation of all active members and active participants

# Actuarial Cost Note Regarding H.B. 411, P.N. 985, Amendment A02569 To Estimate the Cost Impact of a Proposed Cost of Living Adjustment to the Pennsylvania State Employees Retirement System

**March 23, 2026**

over a period of ten years from the first day of July following the valuation date coincident with or next following the date such legislation is enacted.

If the legislation is enacted between now and December 31, 2026, the funding will be over 10 years beginning July 1, 2027.

## Proposed COLA Increases

The proposed COLA increase percentages are presented in Table 1 below.

<b>Table 1 Proposed COLA Increases Effective After July 1, 2026 &amp; Payable to Eligible Retired Members Who Retired Prior to July 2, 2001</b>		
<b>Most Recent Effective Retirement</b>	<b>Date of Retirement</b>	<b>Proposed COLA Increase</b>
	Prior to July 2, 1982	24.5%
	July 2, 1982 - July 1, 1983	24.0%
	July 2, 1983 - July 1, 1984	23.5%
	July 2, 1984 - July 1, 1985	23.0%
	July 2, 1985 - July 1, 1986	22.5%
	July 2, 1986 - July 1, 1987	22.0%
	July 2, 1987 - July 1, 1988	21.5%
	July 2, 1988 - July 1, 1989	21.0%
	July 2, 1989 - July 1, 1990	20.5%
	July 2, 1990 - July 1, 1991	20.0%
	July 2, 1991 - July 1, 1992	19.5%
	July 2, 1992 - July 1, 1993	19.0%
	July 2, 1993 - July 1, 1994	18.5%
	July 2, 1994 - July 1, 1995	18.0%
	July 2, 1995 - July 1, 1996	17.5%
	July 2, 1996 - July 1, 1997	17.0%
	July 2, 1997 - July 1, 1998	16.5%
	July 2, 1998 - July 1, 1999	16.0%
	July 2, 1999 - July 1, 2000	15.5%
	July 2, 2000 - July 1, 2001	15.0%
	July 2, 2001 and After	0.0%

# Actuarial Cost Note Regarding H.B. 411, P.N. 985, Amendment A02569 To Estimate the Cost Impact of a Proposed Cost of Living Adjustment to the Pennsylvania State Employees Retirement System

**March 23, 2026**

## Estimated COLA Impact and Costs

Table 2 presents some approximate statistics related to the impact if this proposed COLA were to become law, as well as the estimated additional liability and annual cost to SERS, based upon funding in equal dollar annual installments over a 10-year period beginning July 1, 2027.

The estimated number of retirees to receive the proposed COLA is based on the number eligible to receive the COLA as of December 31, 2025. The average increase is the overall average increase the eligible members (as of December 31, 2025) would receive.

<b>Table 2 Impact &amp; Estimated Cost of Proposed COLA Increase (dollars in millions)</b>	
Effective date of first COLA payment	After July 1, 2026
Funding date	July 1, 2027
Estimated number of retirees to receive COLA	19,953
Average COLA increase	17.61%
Expected payroll in fiscal year 2027/2028	\$8,275.0
Increase in liability in December 31, 2026 Valuation	\$271.1
Level annual 10-year funding payment	\$38.4
As a percent of projected payroll	0.46%

## Methods and Assumptions Underlying Table 2 Results

The data used for this cost estimate is based on a special run provided by SERS that included all retirements through December 31, 2025. The data included age, gender, date of retirement, and both the initial and current monthly benefit for the retired population as of December 31, 2025. The estimated number of retirees to receive the COLA is based on the number of retirees in payment status as of December 31, 2025.

The liability was determined by using the actuarial assumptions and methods underlying the December 31, 2024 actuarial valuation, as updated by the experience study changes adopted by the Board that are effective December 31, 2025. The expected payroll figure shown above is as of the first fiscal year in which the COLA will be funded. It is the December 31, 2024 valuation funding payroll projected forward two years.

# Actuarial Cost Note Regarding H.B. 411, P.N. 985, Amendment A02569 To Estimate the Cost Impact of a Proposed Cost of Living Adjustment to the Pennsylvania State Employees Retirement System

March 23, 2026

This cost note was prepared using our GRS proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Separate from the liability calculations in this cost note, projections were prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses.

## Potential Risks Related to the COLA

The liabilities and costs in this cost note are based upon actuarial assumptions adopted for the December 31, 2025 actuarial valuation of SERS. These measurements represent a single estimate of the future liabilities and costs of SERS. Since the actual liabilities and costs will be determined based upon (i) the future actuarial assumptions underlying such future measurements and (ii) the actual future experience of SERS, there is a risk that future measurements will differ from those presented in this cost note.

To provide readers of this cost note with a greater appreciation for the sensitivity of these results to potential future changes in both the underlying actuarial assumptions and future SERS experience, we have performed three additional liability calculations:

- One liability calculation, based upon a 5.875% underlying interest rate assumption (a full 1% lower than the 6.875% assumption currently applicable to SERS). This is for the purpose of showing the extent of increase that would occur in our liability result if a 1% lower interest rate assumption applied in the future. Our resulting liability (based on the 5.875% interest rate) was \$283.0 million, or 4.4% greater than the Table 2 liability increase of \$271.1 million.
- A second liability calculation, based upon the assumption that the actual future mortality rates experienced by the retirees eligible for the proposed COLA increases are 5% lower than those currently assumed for SERS annuitants for all years of each recipient's life. This is in order to show the extent of increase that would occur in our liability result if the COLA-eligible SERS retirees had favorable future longevity. Our resulting liability (based on the more favorable mortality rates) was \$277.8 million, or 2.5% greater than the Table 2 liability increase of \$271.1 million.

# Actuarial Cost Note Regarding H.B. 411, P.N. 985, Amendment A02569 To Estimate the Cost Impact of a Proposed Cost of Living Adjustment to the Pennsylvania State Employees Retirement System

March 23, 2026

- A third liability calculation, based upon both of the two adjustments described above. Our resulting liability (based on the 5.875% interest rate and the 5% lower assumed mortality rates for all years) was \$290.3 million, or 7.1% greater than the Table 2 liability increase of \$271.1 million.

Again, we are presenting the above supplemental results to be responsive to ASOP 51, hoping to enhance understanding and appreciation of SERS' risk exposure for readers of this cost note.

## Actuarial Certification


To the best of our knowledge, the information we are presenting herein is complete and accurate and all costs and liabilities have been determined in conformance with generally accepted actuarial principles and on the basis of actuarial assumptions and methods which are reasonable (taking into account the past experience of SERS and reasonable expectations) and which represent our best estimate of anticipated experience under the plan.

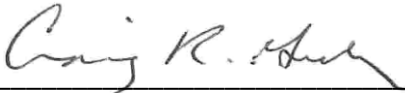
The credentialed actuaries certifying to this note are members of various professional actuarial organizations and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Statements of Actuarial Opinion.

Please let us know if you have any questions.

Respectfully submitted,

**Gabriel, Roeder, Smith & Company**

By:   
Kris Seets, FSA, EA, MAAA  
March 23, 2026

By:   
Craig R. Graby, EA, FCA, MAAA



1205 Westlakes Drive  
Suite 290  
Berwyn, PA 19312

March 20, 2026

Mr. Uri Monson  
Executive Director  
Pennsylvania Public School Employees' Retirement System  
5 North 5th Street  
Harrisburg, PA 17101

**Re: Amendment A02569 to House Bill 411, Printer's No. 985**

Dear Mr. Monson:

As requested, we have examined Amendment A02569 to House Bill 411, Printer's No. 985 (A02569). A copy of the Independent Fiscal Office's (IFO) request for analysis, the text of Amendment A02569 to House Bill 411, Printer's No. 985, and the original text of House Bill 411, Printer's No. 985 are included in the Appendix to this letter. Our understanding of A02569 is as follows:

- A02569 would provide monthly supplemental annuities for Public School Employees' Retirement System (PSERS or Retirement System) retirees who meet the following conditions:
  - (a) Retirees in receipt of a superannuation, withdrawal, or disability annuity from the Retirement System on July 1, 2026,
  - (b) Retirees whose most recent effective date of retirement is prior to July 2, 2001, and
  - (c) Retirees whose credited service does not include any service credited as:
    - Class T-D, or
    - Class D-4 or Class AA service in the State Employees' Retirement System due to multiple service membership.
- The amount of each eligible retiree's monthly supplemental annuity would be a percentage of the retiree's monthly annuity payment in effect on July 1, 2026. The applicable percentage is based on the retiree's most recent effective date of retirement, as follows:

<u>Most recent effective date of retirement:</u>	<u>Percentage Factor:</u>
July 2, 2000 through July 1, 2001	15.0%
July 2, 1999 through July 1, 2000	15.5%
July 2, 1998 through July 1, 1999	16.0%
July 2, 1997 through July 1, 1998	16.5%
July 2, 1996 through July 1, 1997	17.0%
July 2, 1995 through July 1, 1996	17.5%
July 2, 1994 through July 1, 1995	18.0%
July 2, 1993 through July 1, 1994	18.5%
July 2, 1992 through July 1, 1993	19.0%
July 2, 1991 through July 1, 1992	19.5%
July 2, 1990 through July 1, 1991	20.0%
July 2, 1989 through July 1, 1990	20.5%
July 2, 1988 through July 1, 1989	21.0%
July 2, 1987 through July 1, 1988	21.5%
July 2, 1986 through July 1, 1987	22.0%
July 2, 1985 through July 1, 1986	22.5%
July 2, 1984 through July 1, 1985	23.0%
July 2, 1983 through July 1, 1984	23.5%

July 2, 1982 through July 1, 1983	24.0%
Prior to July 2, 1982	24.5%

- No monthly supplemental annuity would be payable to any beneficiary or survivor of a retiree who dies prior to July 1, 2026.
- The monthly supplemental annuity for eligible retirees would commence with the first monthly annuity payment after July 1, 2026. However, no monthly supplemental annuity would be payable to an annuitant receiving a withdrawal annuity prior to the July 1 coincident with or next following the annuitant's attainment of superannuation age.
- The monthly supplemental annuity would be paid automatically to each eligible annuitant unless the annuitant files a written notice with the Board requesting that the additional monthly supplemental annuity not be paid.
- The monthly supplemental annuity would be payable under the same optional form of payment as the July 1, 2026, annuity payment. It would also be subject to any subsequent modification of the July 1, 2026, annuity form of payment.
- Unless a different funding source is otherwise provided by State law, the additional liability attributable to the supplemental benefits provided under this legislation would be funded by a 10-year equal dollar annual installments by Retirement System employers beginning July 1, 2027.

Estimates of the potential financial impact of A02569 are presented in the attached Exhibit 1; A02569's additional cost to the Retirement System through 2059 is estimated to be \$888,014,000 on a cash flow basis. The estimates assume this legislation will be initially reflected during the June 30, 2026 actuarial valuation and funded in equal installments over a 10-year period beginning July 1, 2027.

It should be noted that increasing benefits at a time when the funded status of the Retirement System is only at 66.6% based on the actuarial value of assets at June 30, 2025, and employer pension contribution levels are at a rate of 32.52% of payroll should be carefully considered; in particular, the impact on the Retirement System's projected funded status and employer contribution rates should be considered. However, Gallagher does not take a position in favor of or in opposition to A02569.

Exhibit 2 provides a distribution of the eligible benefit recipients based on A02569's "most recent effective date of retirement" supplemental annuity subgroups.

Exhibit 3 provides the projected annual annuity cash flows for the eligible recipients with and without A02569's supplemental annuity.

In addition, the IFO has requested the following supplemental information:

- i) The total number of eligible recipients as of June 30, 2025, the most recent date as of which data is available, is 34,190.
- ii) The average age of the eligible retirees as of June 30, 2025, was 84.44 years.
- iii) The total of annual annuities paid to the eligible recipients as of June 30, 2025, was \$658,201,899.
- iv) The total of annual annuities for the eligible recipients with the supplemental annuity increases is estimated to be \$772,557,016 as of June 30, 2025. This includes \$7,960 in prospective annual supplemental annuities for retirees receiving a withdrawal annuity who

have not attained superannuation age; the supplemental annuities for these retirees are deferred to the July 1 coincident with or next following the annuitant's attainment of superannuation age.

- v) The expected annual increases in benefit payments due to the proposed supplemental annuity are reported in Exhibit 3.
- vi) The average life expectancy for eligible retirees as of June 30, 2025, was 8.98 years.

The calculations presented here are based on the data, methods, and assumptions used in the June 30, 2025, actuarial valuation of PSERS, including an assumed annual rate of return on Retirement System assets of 7.00%, as well as the following assumptions for the projected future actuarial valuation results:

- (a) The active membership of the Retirement System is assumed to remain constant over the projection period.
- (b) Among new school employees hired on or after July 1, 2025, 98% will become Class T-G members, 1% will elect Class T-H membership, and 1% will elect Class DC participation.
- (c) Future new employees are assumed to have similar demographic characteristics (age/gender/salary) to those of new members who entered PSERS from July 1, 2022, through June 30, 2025.

In addition:

- The information presented in this analysis is based on the June 30, 2025, valuation data and projection of mortality in accordance with the valuation mortality assumption to the first effective payment of the supplemental annuity. The estimates of A02569's potential statistical and financial impact will be reduced by the statistics and cost of the supplemental annuity for contingent annuitants of any eligible member who dies prior to the COLA effective date, as they are not eligible; the expected impact of these deaths will reduce the overall cost impact of A02569.
- All eligible recipients were assumed to accept A02569's supplemental annuity.
- The Retirement System's annual actuarial valuation does not anticipate subsequent modifications to current retirees' annuity form of payment. Therefore, this analysis does not consider future modifications to A02569's supplemental annuity form of payment.
- A02569 requires funding of the additional liability in equal payments over a 10-year period by Retirement System employers. However, this contradicts § 8328(d) of current statutes, which stipulates that the additional liability for increases in supplemental benefits due to legislation enacted after June 30, 2010, is to be funded as a level percentage of compensation over a 10-year period. We are not qualified to comment on possible conflicts in Pennsylvania law. This analysis is based on A02569's provisions. The estimates of A02569's potential financial impact, as presented in the attached Exhibit 1, will change if it is determined that § 8328(d) of current statutes takes precedence over the funding provisions of A02569.

The information contained herein was developed at your request by Gallagher Benefit Services, Inc. (Gallagher), using generally accepted actuarial principles and techniques in accordance with all applicable Actuarial Standards of Practice (ASOPs). The purpose of this analysis is to provide an estimate of A02569's projected additional cost to the Retirement System. Use of this presentation for any other purpose, or by anyone other than the Board of Trustees or the staff of PSERS, may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the presentation for that purpose. Gallagher should be asked to review any statement to be made on the basis of the results contained herein. Gallagher will accept no liability for any such statement made without prior review by Gallagher. No third-party

Mr. Uri Monson

March 20, 2026

Page 4

recipient of Gallagher's work product should rely upon Gallagher's work product absent involvement of Gallagher or without our approval.

Unless stated otherwise, references to "funded ratio" and "unfunded accrued liability" are measured using the actuarial value of assets. It should be noted that if the same measurements were made using the market value of assets, different funded ratios and unfunded accrued liabilities would result. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the Retirement System if the Retirement System were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

These results may be used as estimates of the likely pattern of emerging costs and liabilities resulting from A02569's proposed changes but should not be viewed as a guarantee of actual costs. Actual future funding obligations will be determined by actuarial valuations made on future valuation dates and will likely differ from the estimates provided in this analysis.

ASOP No. 27 asks the actuary to disclose the information and analysis used to support the actuary's determination that the assumptions selected by the Board do not significantly conflict with what, in the actuary's professional judgment, are reasonable for the purpose of the measurement. The Board adopted a new set of economic and demographic assumptions for the June 30, 2021, actuarial valuation based on the recommendations outlined by Gallagher in their 5-year experience study for the period July 1, 2015, to June 30, 2020. In the case of the Board's selection of an expected return on assets ("EROA"), we reviewed the analysis provided by the Retirement System's investment consultant as well as Gallagher's Financial Risk Management practice and determined the EROA assumption together with the Retirement System's other economic and demographic assumptions do not significantly conflict with what is reasonable for the purpose of the measurement. In our professional judgment, the combined effect of the assumptions is expected to have no significant bias.

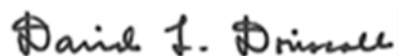
The Appendix presents a discussion of risks of actual future measurements deviating from expected future measurements and models used in calculating the results shown in this analysis.

This cost analysis only provides information regarding future funding contributions of the Retirement System. It does not provide any information regarding the impact any changes may have on financial disclosures under applicable GASB standards.

This cost analysis was prepared under my supervision. I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Academy's Qualification Standards to issue this Statement of Actuarial Opinion. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions about it.

Please contact me if you have any questions concerning this report.

Sincerely,



David L. Driscoll, FSA, MAAA, EA, FCA  
Principal, Consulting Actuary

Enc.

Pc: Brian Lyman

Exhibit 1

Pennsylvania Public School Employees' Retirement System  
 Projection of Contribution Rates and Funded Ratios As of June 30, 2025  
 PSERS (Current) vs. Amendment A02569 to House Bill 411, Printer's No. 985 (A02569)

Fiscal Year Ending 6/30/	Total Payroll (\$Thousands)		Projected DC Payroll (\$Thousands)		Fiscal Year Market Rate of Return		Pension Rate Floor		Member Contribution Rate		Employer Normal Cost Rate		Employer Unfunded Liability Rate		Preliminary Employer Pension Rate		Health Care Contribution		Employer DC Contribution Rate		Total Employer Contribution Rate		Projected Total Employer Contribution (E\$Thousands)				Funded Ratio		Unfunded Accrued Liability (Based on Actuarial Value of Assets & Millions)		Actuarial Value of Assets (\$Millions)		Market Value of Assets (\$Millions)				
	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Current	A02569	Cash Flow Basis	Present Value as of June 30, 2025 (7.00%)	Current	A02569	Current	A02569	Current	A02569	Current	A02569			
2024	15,260,000	\$ 15,260,000			8.14	%	5.86	%	5.86	%	7.44	%	5.86	%	27.23	%	33.09	%	0.64	%	34.00	%	34.00	%				64.81	%	64.81	%	\$ 41,982	\$ 41,982	\$ 77,318	\$ 77,318	\$ 76,629	\$ 76,629
2025	15,590,000	\$ 15,590,000	\$ 2,484,916	\$ 2,484,916	9.67	%	5.68	%	5.68	%	7.37	%	5.68	%	27.24	%	32.92	%	0.63	%	33.90	%	33.90	%				66.57	%	66.57	%	\$ 40,910	\$ 40,910	\$ 81,452	\$ 81,452	\$ 82,765	\$ 82,765
2026	16,152,000	16,152,000	3,106,820	3,106,820	7.00	%	5.45	%	5.45	%	7.29	%	5.45	%	27.51	%	32.96	%	0.62	%	0.42	%	0.42	%	\$ 5,491,680	\$ 5,491,680	\$ 0	\$ 0	68.69	%	68.37	%	39,047	39,630	85,672	86,793	
2027	16,862,000	16,862,000	3,792,161	3,792,161	7.00	%	5.21	%	5.21	%	7.22	%	5.21	%	27.31	%	32.52	%	0.56	%	0.51	%	0.51	%	\$ 6,663,946	\$ 6,663,946	\$ 0	\$ 0	70.93	%	70.56	%	35,970	37,593	90,190	90,084	
2028	16,971,452	16,971,452	4,290,820	4,290,820	7.00	%	5.01	%	5.01	%	7.15	%	5.01	%	27.30	%	32.91	%	0.64	%	0.57	%	0.57	%	\$ 5,789,899	\$ 5,789,700	88,801	72,468	73.24	72.89	34,695	35,244	94,573	94,755			
2029	17,052,633	17,052,633	4,780,673	4,780,673	7.00	%	4.83	%	4.83	%	7.09	%	4.83	%	28.53	%	33.36	%	0.64	%	0.63	%	0.63	%	\$ 5,915,793	\$ 6,004,584	88,801	67,746	75.73	75.40	31,993	32,524	99,823	99,700			
2030	17,200,341	17,200,341	5,261,995	5,261,995	7.00	%	4.64	%	4.64	%	7.04	%	4.64	%	29.19	%	33.83	%	0.64	%	0.70	%	0.70	%	\$ 6,049,679	\$ 6,138,480	88,801	63,314	78.63	78.33	28,638	29,117	105,349	105,230			
2031	17,322,547	17,322,547	5,759,356	5,759,356	7.00	%	4.46	%	4.46	%	6.98	%	4.46	%	29.64	%	34.30	%	0.64	%	0.75	%	0.75	%	\$ 6,181,987	\$ 6,270,788	88,801	59,172	80.95	80.69	25,910	26,334	110,531	110,024			
2032	17,447,248	17,447,248	6,274,004	6,274,004	7.00	%	4.26	%	4.26	%	6.93	%	4.26	%	30.36	%	35.67	%	0.63	%	0.81	%	0.81	%	\$ 6,291,088	\$ 6,379,889	88,801	55,301	83.79	83.36	22,360	22,725	115,588	115,261			
2033	17,573,038	17,573,038	6,810,172	6,810,172	7.00	%	4.07	%	4.07	%	6.87	%	4.07	%	31.29	%	37.00	%	0.64	%	0.87	%	0.87	%	\$ 6,473,721	\$ 6,568,522	88,801	51,683	87.02	86.83	18,139	18,440	121,586	121,988			
2034	17,702,771	17,702,771	7,369,863	7,369,863	7.00	%	3.86	%	3.86	%	6.81	%	3.86	%	32.05	%	38.51	%	0.63	%	0.94	%	0.94	%	\$ 6,634,456	\$ 6,723,257	88,801	48,302	90.45	90.30	13,497	13,730	127,864	128,066			
2035	17,840,363	17,840,363	7,950,705	7,950,705	7.00	%	3.66	%	3.66	%	6.74	%	3.66	%	32.72	%	39.38	%	0.63	%	1.00	%	1.00	%	\$ 6,781,271	\$ 6,870,072	88,801	45,142	94.01	93.91	8,553	8,714	134,273	134,489			
2036	17,984,147	17,984,147	8,540,771	8,540,771	7.00	%	3.45	%	3.45	%	6.68	%	3.45	%	33.44	%	40.63	%	0.62	%	1.07	%	1.07	%	\$ 6,928,700	\$ 7,017,501	88,801	42,189	95.69	95.64	6,207	6,200	137,809	137,844			
2037	18,126,938	18,126,938	9,154,499	9,154,499	7.00	%	3.23	%	3.23	%	6.62	%	3.23	%	32.09	%	42.58	%	0.61	%	1.13	%	1.13	%	\$ 7,076,155	\$ 7,164,956	88,801	39,420	96.96	96.96	4,414	4,414	140,549	140,699			
2038	18,259,316	18,259,316	9,766,991	9,766,991	7.00	%	3.02	%	3.02	%	6.55	%	3.02	%	30.37	%	43.39	%	0.61	%	1.20	%	1.20	%	\$ 7,275,102	\$ 7,363,903	0	0	98.08	98.08	2,800	2,800	147,021	147,151			
2039	18,376,583	18,376,583	10,393,890	10,393,890	7.00	%	2.81	%	2.81	%	6.48	%	2.81	%	31.85	%	44.35	%	0.61	%	1.27	%	1.27	%	\$ 7,486,412	\$ 7,575,213	0	0	99.02	99.02	1,438	1,438	144,721	144,842			
2040	18,498,059	18,498,059	11,037,357	11,037,357	7.00	%	2.60	%	2.60	%	6.41	%	2.60	%	32.75	%	45.35	%	0.61	%	1.34	%	1.34	%	\$ 7,698,033	\$ 7,786,834	0	0	99.82	99.82	271	271	146,072	146,193			
2041	18,613,951	18,613,951	11,698,808	11,698,808	7.00	%	2.38	%	2.38	%	6.34	%	2.38	%	33.72	%	46.32	%	0.61	%	1.41	%	1.41	%	\$ 7,908,795	\$ 7,997,596	0	0	100.49	100.49	(718)	(718)	147,013	147,116			
2042	18,734,849	18,734,849	12,375,443	12,375,443	7.00	%	2.16	%	2.16	%	6.27	%	2.16	%	34.73	%	47.39	%	0.61	%	1.48	%	1.48	%	\$ 8,118,548	\$ 8,207,349	0	0	100.69	100.69	(1,012)	(1,012)	147,025	147,122			
2043	18,863,018	18,863,018	13,064,405	13,064,405	7.00	%	1.96	%	1.96	%	6.19	%	1.96	%	35.76	%	48.42	%	0.61	%	1.55	%	1.55	%	\$ 8,333,111	\$ 8,421,912	0	0	100.76	100.76	(1,101)	(1,101)	146,635	146,732			
2044	19,005,140	19,005,140	13,763,391	13,763,391	7.00	%	1.76	%	1.76	%	6.12	%	1.76	%	36.78	%	49.48	%	0.61	%	1.62	%	1.62	%	\$ 8,552,359	\$ 8,641,160	0	0	100.83	100.82	(1,196)	(1,196)	146,062	146,159			
2045	19,166,621	19,166,621	14,469,885	14,469,885	7.00	%	1.58	%	1.58	%	6.05	%	1.58	%	37.83	%	50.51	%	0.61	%	1.69	%	1.69	%	\$ 8,771,461	\$ 8,860,262	0	0	100.92	100.92	(1,282)	(1,282)	145,449	145,543			
2046	19,352,763	19,352,763	15,174,638	15,174,638	7.00	%	1.42	%	1.42	%	5.97	%	1.42	%	38.91	%	51.51	%	0.61	%	1.77	%	1.77	%	\$ 8,991,460	\$ 9,080,261	0	0	100.99	100.99	(1,425)	(1,425)	144,745	144,850			
2047	19,568,785	19,568,785	15,875,321	15,875,321	7.00	%	1.27	%	1.27	%	5.91	%	1.27	%	40.06	%	52.56	%	0.61	%	1.83	%	1.83	%	\$ 9,211,461	\$ 9,300,262	0	0	101.08	101.08	(1,539)	(1,539)	144,222	144,322			
2048	19,816,117	19,816,117	16,568,593	16,568,593	7.00	%	1.16	%	1.16	%	5.84	%	1.16	%	41.21	%	53.61	%	0.61	%	1.88	%	1.88	%	\$ 9,431,461	\$ 9,520,262	0	0	101.17	101.17	(1,654)	(1,654)	143,551	143,651			
2049	20,107,513	20,107,513	17,253,660	17,253,660	7.00	%	1.07	%	1.07	%	5.78	%	1.07	%	42.36	%	54.62	%	0.61	%	1.93	%	1.93	%	\$ 9,651,461	\$ 9,740,262	0	0	101.26	101.26	(1,775)	(1,775)	143,032	143,139			
2050	20,433,898	20,433,898	17,932,706	17,932,706	7.00	%	0.99	%	0.99	%	5.73	%	0.99	%	43.51	%	55.69	%	0.61	%	1.98	%	1.98	%	\$ 9,871,461	\$ 9,960,262	0	0	101.36	101.36	(1,909)	(1,909)	142,586	142,689			
2051	20,796,249	20,796,249	18,608,716	18,608,716	7.00	%	0.93	%	0.93	%	5.68	%	0.93	%	44.66	%	56.78	%	0.61	%	2.01	%	2.01	%	\$ 10,091,461	\$ 10,180,262	0	0	101.46	101.46	(2,054)	(2,054)	142,233	142,336			
2052	21,195,039	21,195,039	19,285,385	19,285,385	7.00	%	0.89	%	0.89	%	5.64	%	0.89	%	45.81	%	57.89	%	0.61	%	2.05	%	2.05	%	\$ 10,311,461	\$ 10,400,262	0	0	101.58	101.58	(2,207)	(2,207)	141,986	142,115			
2053	21,631,293	21,631,293	19,960,806	19,960,806	7.00	%	0.84	%	0.84	%	5.61	%	0.84	%	46.96	%	59.00	%	0.61	%	2.08	%	2.08	%	\$ 10,531,461	\$ 10,620,262	0	0	101.70	101.70	(2,372)	(2,372)	141,865	142,001			
2054	22,102,657	22,102,657	20,634,315	20,634,315	7.00	%	0.82	%	0.82	%	5.57	%	0.82	%	48.11	%	60.21	%	0.61	%	2.10	%	2.10	%	\$ 10,751,461	\$ 10,840,262	0	0	101.83	101.83	(2,547)	(2,547)	141,865	142,011			
2055	22,606,512	22,606,512	21,300,082	21,300,082	7.00	%	0.79	%	0.79	%	5																										

**Exhibit 2**  
**Eligible Benefit Recipients based on the June 30, 2025 Valuation Data**  
**Distributed on Most Recent Effective Date of Retirement**

<b>Most recent effective date of retirement</b>	<b>Percentage Factor</b>	<b>Number of Eligible Benefit Recipients</b>
July 2, 2000 through July 1, 2001	15.00%	1,148
July 2, 1999 through July 1, 2000	15.50%	2,771
July 2, 1998 through July 1, 1999	16.00%	5,822
July 2, 1997 through July 1, 1998	16.50%	3,121
July 2, 1996 through July 1, 1997	17.00%	4,214
July 2, 1995 through July 1, 1996	17.50%	2,498
July 2, 1994 through July 1, 1995	18.00%	1,449
July 2, 1993 through July 1, 1994	18.50%	1,266
July 2, 1992 through July 1, 1993	19.00%	3,004
July 2, 1991 through July 1, 1992	19.50%	1,095
July 2, 1990 through July 1, 1991	20.00%	1,005
July 2, 1989 through July 1, 1990	20.50%	886
July 2, 1988 through July 1, 1989	21.00%	792
July 2, 1987 through July 1, 1988	21.50%	600
July 2, 1986 through July 1, 1987	22.00%	584
July 2, 1985 through July 1, 1986	22.50%	711
July 2, 1984 through July 1, 1985	23.00%	624
July 2, 1983 through July 1, 1984	23.50%	553
July 2, 1982 through July 1, 1983	24.00%	417
Prior to July 2, 1982	24.50%	1,630
<b>Total</b>		<b>34,190</b>

*This is an attachment to Gallagher's March 20, 2026 cost analysis on A02569. Please refer to that cost analysis for more information.*

**Exhibit 3**

**Projected Annual Benefit Cash Flows for the Eligible Benefit Recipients**

<b>Fiscal Year Ending June 30</b>	<b>Current</b>	<b>Reflecting A02569 Supplemental Annuity</b>	<b>Increase in Benefit Payments due to A02569 Supplemental Annuity</b>
2026	634,526,988	634,526,988	0
2027	587,115,921	689,218,108	102,102,187
2028	539,880,754	633,487,151	93,606,397
2029	493,221,773	578,490,846	85,269,073
2030	447,522,797	524,672,615	77,149,818
2031	403,147,516	472,461,706	69,314,190
2032	360,433,903	422,247,188	61,813,285
2033	319,689,250	374,385,849	54,696,599
2034	281,185,109	329,190,160	48,005,051
2035	245,152,476	286,924,591	41,772,115
2036	211,777,368	247,800,732	36,023,364
2037	181,195,400	211,971,241	30,775,841
2038	153,485,897	179,523,219	26,037,322
2039	128,670,503	150,476,745	21,806,242
2040	106,715,680	124,788,035	18,072,355
2041	87,536,752	102,354,216	14,817,464
2042	71,002,634	83,018,808	12,016,174
2043	56,940,892	66,577,776	9,636,884
2044	45,146,852	52,789,957	7,643,105
2045	35,395,696	41,391,253	5,995,557
2046	27,451,974	32,105,564	4,653,590
2047	21,076,696	24,653,042	3,576,346
2048	16,035,738	18,759,805	2,724,067
2049	12,107,509	14,166,788	2,059,279
2050	9,088,918	10,636,702	1,547,784
2051	6,799,424	7,958,640	1,159,216
2052	5,082,986	5,950,344	867,358
2053	3,808,575	4,458,787	650,212
2054	2,869,232	3,359,049	489,817
2055	2,179,881	2,551,745	371,864
2056	1,674,498	1,959,733	285,235
2057	1,303,027	1,524,504	221,477
2058	1,028,348	1,202,656	174,308
2059	823,431	962,565	139,134
2060	668,847	781,485	112,638
2061	550,740	643,183	92,443
2062	459,312	536,170	76,858
2063	387,656	452,343	64,687
2064	330,860	385,933	55,073
2065	285,381	332,780	47,399
2066	248,609	289,817	41,208

**Exhibit 3**

**Projected Annual Benefit Cash Flows for the Eligible Benefit Recipients**

<b>Fiscal Year Ending June 30</b>	<b>Current</b>	<b>Reflecting A02569 Supplemental Annuity</b>	<b>Increase in Benefit Payments due to A02569 Supplemental Annuity</b>
2067	218,588	254,750	36,162
2068	193,833	225,837	32,004
2069	173,210	201,749	28,539
2070	155,819	181,435	25,616
2071	140,934	164,046	23,112
2072	127,997	148,931	20,934
2073	116,578	135,589	19,011
2074	106,342	123,631	17,289
2075	97,035	112,762	15,727
2076	88,470	102,762	14,292
2077	80,511	93,475	12,964
2078	73,062	84,789	11,727
2079	66,068	76,638	10,570
2080	59,497	68,985	9,488
2081	53,329	61,808	8,479
2082	47,553	55,091	7,538
2083	42,162	48,826	6,664
2084	37,154	43,010	5,856
2085	32,528	37,642	5,114
2086	28,285	32,722	4,437
2087	24,423	28,246	3,823
2088	20,934	24,204	3,270
2089	17,809	20,586	2,777
2090	15,037	17,378	2,341
2091	12,599	14,558	1,959
2092	10,475	12,102	1,627
2093	8,636	9,976	1,340
2094	7,053	8,147	1,094
2095	5,703	6,587	884
2096	4,562	5,269	707
2097	3,605	4,163	558
2098	2,808	3,243	435
2099	2,154	2,487	333
2100	1,624	1,875	251
2101	1,200	1,386	186
2102	868	1,002	134
2103	613	708	95
2104	421	486	65
2105	281	325	44
2106	182	210	28
2107	114	132	18

**Exhibit 3**

**Projected Annual Benefit Cash Flows for the Eligible Benefit Recipients**

<b>Fiscal Year Ending June 30</b>	<b>Current</b>	<b>Reflecting A02569 Supplemental Annuity</b>	<b>Increase in Benefit Payments due to A02569 Supplemental Annuity</b>
2108	69	80	11
2109	40	46	6
2110	22	25	3
2111	12	14	2
2112	6	7	1
2113	3	3	0
2114	1	1	0
2115	1	1	0
2116	0	0	0
2117	0	0	0
2118	0	0	0
2119	0	0	0

*This is an attachment to Gallagher's March 20, 2026 cost analysis on A02569. Please refer to that cost analysis for more information.*

# Appendix

## **Actuarial Standard of Practice No. 56**

ASOP No. 56 provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses the following:

- third-party software in the performance of annual actuarial valuations and projections to calculate the liabilities associated with the provisions of the plan using data and assumptions as of the measurement date under the funding methods specified in this report.
- an internally developed model that applies applicable funding methods and policies to the liabilities derived from the output of the third-party software and other inputs, such as plan assets and contributions, to generate many of the exhibits found in this report.

Gallagher has an extensive review process whereby the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software or model. The review is performed by experts within the company who are familiar with applicable funding methods as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked, and reviewed by multiple experts within the company who are familiar with the details of the required changes.

## **Actuarial Standard of Practice No. 51**

Funding future retirement benefits prior to when those benefits become due involves assumptions regarding future economic and demographic experience. These assumptions are applied to calculate actuarial liabilities, current contribution requirements, and the funded status of the plan. However, to the extent future experience deviates from the assumptions used, variations will occur in these calculated values. These variations create risk to the plan. Understanding the risks to the funding of the plan is important. ASOP 51 requires certain disclosures of potential risks to the plan and provides useful information for intended users of actuarial reports that determine plan contributions or evaluate the adequacy of specified contribution levels to support benefit provisions.

Under ASOP 51, risk is defined as the potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience.

It is important to note that not all risk is negative, but all risk should be understood and accepted based on knowledge, judgment, and educated decisions. Future measurements may deviate in ways that produce positive or negative financial impacts on the Retirement System.

In the actuary's professional judgment, the following risks may reasonably be anticipated to significantly affect the Retirement System's future financial condition:

- Investment risk – potential that the investment return will differ from the 7.00% expected in the actuarial valuation.
- Salary increases – potential that salary increases will be different from that assumed for the actuarial valuation.

- Longevity risk – potential that participants live longer than expected from the valuation mortality assumptions.
- Declining workforce – potential that future employer contribution rates will be different from expected.
- Contribution risk – potential that the contribution will be different than the recommended contribution in the actuarial valuation.

The following information is provided to comply with ASOP 51 and furnish beneficial information on potential risks to the plan. This list is not all-inclusive; it is an attempt to identify the most significant risks and how those risks might affect the results shown in this report.

Note that ASOP 51 does not require the actuary to evaluate the ability or willingness of the Retirement System employers to make contributions to the Retirement System when due, or to assess the likelihood or consequences of potential future changes in law. In addition, this valuation report is not intended to provide investment advice or guidance on the management or reduction of risk. Gallagher welcomes the opportunity to assist in such matters as part of a separate project or projects utilizing the appropriate staff and resources for those objectives.

*Investment Risk:* Retirement System costs are very sensitive to the market return. Returns on assets below those assumed will increase costs.

- Investment returns at less-than-expected levels will cause the assets to be lower than expected. This decrease in assets will increase the Retirement System cost.
- The Retirement System uses an actuarial value of assets that smooths gains and losses on market returns over a ten-year period to help control some of the volatility in costs due to investment risk.

*Salary increases:* Retirement System costs are sensitive to salary increases since benefits at retirement are pay-related.

- Salary increases above those expected would lead to higher liabilities, larger unfunded liabilities, and larger employer contributions.
- Salaries below those expected would lead to lower liabilities but may increase employer contribution rates due to lower employer payroll.

*Longevity Risk:* Retirement System costs will increase as participants are expected to live longer. This is because:

- Benefits are paid over a longer lifetime when life expectancy is expected to increase. The longer duration of payments leads to higher liabilities.
- Health care has been improving, increasing participants' life expectancies. As health care improves, costs will increase.
- The mortality assumption used in the actuarial valuation of the Retirement System incorporates assumed future improvement in longevity. Future longevity improvements exceeding those reflected in the current mortality assumption would lead to increased Retirement System costs.
- Granting benefit improvements may increase the impact of this risk due to larger benefits being paid over a longer period than is presently expected. Because the benefit increases are ad hoc, one-time improvements, the increase in longevity risk may be mitigated.

*Declining workforce:* Employer contributions are based on a percentage of participants' salaries. If the required dollar amount of contributions remains level or increases, a declining active workforce will result in higher contribution rates in order to meet required contribution levels.

*Contribution Risk:* The Retirement System contribution is a budgeted amount. There is a risk associated with the employer's contribution when the budgeted amount and recommended amount differ. This is because:

- If budgeted contributions are lower than recommended contributions, the Retirement System may not be sustainable in the long term.
- Any underpayment of the contribution will increase future contribution amounts needed to cover the additional Unfunded Actuarial Accrued Liability associated with contributions at levels below those recommended.