Multiple Agency Fiscal Note Summary

Bill Number: 5294 E S SB	**Title:** Retirement system funding

Estimated Cash Receipts

NONE

Estimated Operating Expenditures

Agency Name	2023-25				2025-27				2027-29			
	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total
Department of Retirement Systems	.0	0	0	0	.0	0	0	0	.0	0	0	0
Actuarial Fiscal Note - State Actuary	.0	(888,300,000)	(888,300,000)	(993,400,000)	.0	(266,300,000)	(266,300,000)	(489,400,000)	.0	(258,500,000)	(258,500,000)	(542,900,000)
Total $	**0.0**	**(888,300,000)**	**(888,300,000)**	**(993,400,000)**	**0.0**	**(266,300,000)**	**(266,300,000)**	**(489,400,000)**	**0.0**	**(258,500,000)**	**(258,500,000)**	**(542,900,000)**

Estimated Capital Budget Expenditures

Agency Name	2023-25			2025-27			2027-29		
	FTEs	Bonds	Total	FTEs	Bonds	Total	FTEs	Bonds	Total
Department of Retirement Systems	.0	0	0	.0	0	0	.0	0	0
Actuarial Fiscal Note - State Actuary	.0	0	0	.0	0	0	.0	0	0
Total $	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**

Estimated Capital Budget Breakout

NONE

Prepared by: Marcus Ehrlander, OFM	**Phone:** (360) 489-4327	**Date Published:** Final 3/ 8/2023

FNPID 67971

Individual State Agency Fiscal Note

Bill Number: 5294 E S SB	Title: Retirement system funding	Agency: 124-Department of Retiremen Systems

Part I: Estimates

☒ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Operating Expenditures from:

NONE

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☐ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

Legislative Contact:	David Pringle	Phone: 360-786-7310	Date: 03/06/2023
Agency Preparation:	Mike Ricchio	Phone: 360-664-7227	Date: 03/07/2023
Agency Approval:	Mark Feldhausen	Phone: 360-664-7194	Date: 03/07/2023
OFM Review:	Marcus Ehrlander	Phone: (360) 489-4327	Date: 03/08/2023

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Significant provisions of the bill and any related workload or policy assumptions that have revenue or expenditure impact on the responding agency by section number.

This engrossed substitute bill amends RCW 41.45.150 to modify the portion of the employer contribution rate used to amortize the unfunded actuarial accrued liabilities (UAALs) in Plan 1 of the Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS). It also amends Sec. 747 of the biennial operating budget, passed in the 2021 Session, to reduce the proposed General Fund-State transfer to TRS Plan 1 from $800,000,000 to $250,000,000.

These changes do not have a cost impact on the Department of Retirement Systems as implementing and communicating rate changes are normal processes for the agency.

II. B - Cash receipts Impact

Cash receipts impact of the legislation on the responding agency with the cash receipts provisions identified by section number and when appropriate, the detail of the revenue sources. Description of the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explanation of how workload assumptions translate into estimates. Distinguished between one time and ongoing functions.

II. C - Expenditures

Agency expenditures necessary to implement this legislation (or savings resulting from this legislation), with the provisions of the legislation that result in the expenditures (or savings) identified by section number. Description of the factual basis of the assumptions and the method by which the expenditure impact is derived. Explanation of how workload assumptions translate into cost estimates. Distinguished between one time and ongoing functions.

Part III: Expenditure Detail

III. A - Operating Budget Expenditures

NONE

III. B - Expenditures by Object Or Purpose

NONE

III. C - Operating FTE Detail:

FTEs listed by classification and corresponding annual compensation. Totals agree with total FTEs in Part I and Part IIIA.

NONE

III. D - Expenditures By Program (optional)

NONE

Part IV: Capital Budget Impact

IV. A - Capital Budget Expenditures

NONE

IV. B - Expenditures by Object Or Purpose

NONE

IV. C - Capital Budget Breakout

Acquisition and construction costs not reflected elsewhere on the fiscal note and description of potential financing methods.

NONE

IV. D - Capital FTE Detail: *FTEs listed by classification and corresponding annual compensation. Totals agree with total FTEs in Part IVB.*

NONE

Part V: New Rule Making Required

Provisions of the bill that require the agency to adopt new administrative rules or repeal/revise existing rules.

Individual State Agency Fiscal Note

Bill Number: 5294 E S SB	Title: Retirement system funding	Agency: AFN-Actuarial Fiscal Note - State Actuary

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Operating Expenditures from:

		FY 2024	FY 2025	2023-25	2025-27	2027-29
Account						
All Other Funds-State	000-1	(41,300,000)	(63,800,000)	(105,100,000)	(223,100,000)	(284,400,000)
General Fund-State	001-1	(424,100,000)	(464,200,000)	(888,300,000)	(266,300,000)	(258,500,000)
	Total $	(465,400,000)	(528,000,000)	(993,400,000)	(489,400,000)	(542,900,000)

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☒ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

Legislative Contact:	David Pringle	Phone: 360-786-7310	Date: 03/06/2023
Agency Preparation:	Aaron Gutierrez	Phone: 360-786-6152	Date: 03/08/2023
Agency Approval:	Lisa Won	Phone: 360-786-6150	Date: 03/08/2023
OFM Review:	Marcus Ehrlander	Phone: (360) 489-4327	Date: 03/08/2023

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Significant provisions of the bill and any related workload or policy assumptions that have revenue or expenditure impact on the responding agency by section number.

II. B - Cash receipts Impact

Cash receipts impact of the legislation on the responding agency with the cash receipts provisions identified by section number and when appropriate, the detail of the revenue sources. Description of the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explanation of how workload assumptions translate into estimates. Distinguished between one time and ongoing functions.

II. C - Expenditures

Agency expenditures necessary to implement this legislation (or savings resulting from this legislation), with the provisions of the legislation that result in the expenditures (or savings) identified by section number. Description of the factual basis of the assumptions and the method by which the expenditure impact is derived. Explanation of how workload assumptions translate into cost estimates. Distinguished between one time and ongoing functions.

Part III: Expenditure Detail

III. A - Operating Budget Expenditures

Account	Account Title	Type	FY 2024	FY 2025	2023-25	2025-27	2027-29
000-1	All Other Funds	State	(41,300,000)	(63,800,000)	(105,100,000)	(223,100,000)	(284,400,000)
001-1	General Fund	State	(424,100,000)	(464,200,000)	(888,300,000)	(266,300,000)	(258,500,000)
		Total $	(465,400,000)	(528,000,000)	(993,400,000)	(489,400,000)	(542,900,000)

III. B - Expenditures by Object Or Purpose

	FY 2024	FY 2025	2023-25	2025-27	2027-29
FTE Staff Years					
A-Salaries and Wages					
B-Employee Benefits	(465,400,000)	(528,000,000)	(993,400,000)	(489,400,000)	(542,900,000)
C-Professional Service Contracts					
E-Goods and Other Services					
G-Travel					
J-Capital Outlays					
M-Inter Agency/Fund Transfers					
N-Grants, Benefits & Client Services					
P-Debt Service					
S-Interagency Reimbursements					
T-Intra-Agency Reimbursements					
9-					
Total $	(465,400,000)	(528,000,000)	(993,400,000)	(489,400,000)	(542,900,000)

III. C - Operating FTE Detail: *FTEs listed by classification and corresponding annual compensation. Totals agree with total FTEs in Part I and Part IIIA.*

NONE

III. D - Expenditures By Program (optional)

NONE

Part IV: Capital Budget Impact

IV. A - Capital Budget Expenditures

NONE

IV. B - Expenditures by Object Or Purpose

NONE

IV. C - Capital Budget Breakout

Acquisition and construction costs not reflected elsewhere on the fiscal note and description of potential financing methods.

NONE

IV. D - Capital FTE Detail: *FTEs listed by classification and corresponding annual compensation. Totals agree with total FTEs in Part IVB.*

NONE

Part V: New Rule Making Required

Provisions of the bill that require the agency to adopt new administrative rules or repeal/revise existing rules.

SUMMARY OF RESULTS

BRIEF SUMMARY OF BILL: This bill changes the funding policy for the PERS and TRS Plans 1 Unfunded Actuarial Accrued Liability (UAAL).

COST SUMMARY

Change in Projected Plan 1 UAAL Rates						
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
PERS 1	(1.00%)	(1.50%)	(2.00%)	(3.00%)	(3.00%)	(3.00%)
TRS 1	(5.25%)	(5.25%)	0.00%	0.00%	0.50%	0.50%

Note: Actual results may vary from these projections.

Budget Impacts			
(Dollars in Millions)	2023-2025	2025-2027	2023-2029
General Fund-State	($888.3)	($266.3)	($1,413.1)
Local Government	($348.0)	($453.8)	($1,366.6)
Total Employer	**($1,341.5)**	**($943.3)**	**($3,392.3)**

Note: We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

The FY 2023 budget impacts within this fiscal note exclude the savings of $550 million from reducing the $800 million appropriation to the TRS 1 UAAL to $250 million. We assume the savings of that provision, if enacted, would be included as part of the supplemental budget bill.

HIGHLIGHTS OF ACTUARIAL ANALYSIS

- This bill results in an expected savings to the impacted retirement systems because it lowers annual UAAL contributions (from employers) below what is expected under current law.
- Based on our current law projections, we estimate $5.7 billion in total employer contributions to the PERS 1 and TRS 1 UAAL from FYs 2024 through 2029. We estimate this bill would lower those contributions by $3.4 billion.
- We estimate this bill would extend the expected UAAL pay-off date of PERS 1 and TRS 1 by one year and four years, respectively.
  - As of our June 30, 2021, AVR, PERS 1 and TRS 1 have a combined UAAL of $4.7 billion. The projected pay-off years are 2026 and 2023 for PERS 1 and TRS 1, respectively, under current law and rate-adoption practices.
- Lower contributions improve short-term budget affordability and decrease the chance PERS 1 and TRS 1 have projected funded statuses above 100 percent. Additionally, lower contributions increase the chance that the UAAL continues or reemerges in the future. Based on our risk analysis, over the next 20 years we expect 1 percent of scenarios result in the Plans 1 not reaching full funding under current law. This increases to 30 percent under this bill.
- Higher than expected future returns of 8 percent annually would lower the expected savings of this bill because the pay-off date under current law, and the end of UAAL contribution rate collection, would be sooner. Lower than expected future returns of 6 percent annually may result in a longer continuation, or reemergence, of the UAAL and lower the expected savings.

See the remainder of this fiscal note for additional details on the summary and highlights presented here.

WHAT IS THE PROPOSED CHANGE?

Summary of Bill

This bill impacts the following systems:

- ❖ Public Employees' Retirement System (PERS).
- ❖ Teachers' Retirement System (TRS).
- ❖ School Employees' Retirement System (SERS).
- ❖ Public Safety Employees' Retirement System (PSERS).

This bill changes PERS and TRS Plans 1 UAAL funding policy in two ways.

I. Ends current minimum rates and creates new prescribed rates followed by minimum rates. These new rates are separate from, and do not alter, any amounts required by the Revised Code of Washington (RCW) 41.45.070 to amortize Plans 1 benefit improvements effective after June 30, 2009. The new rates are as follows:

- ❖ For PERS and PSERS, the current minimum rate of 3.50 percent ends on June 30, 2023, and is replaced with the following rates:
  - ▪ Fiscal Year (FY) 2024: 2.50 percent.
  - ▪ FY 2025: 2.00 percent.
  - ▪ FY 2026: 1.50 percent.
  - ▪ FY 2027: 0.50 percent.
  - ▪ July 1, 2027, onward: a minimum of 0.50 percent.
    - ◊ The minimum rate will be effective any time the actuarial value of assets in this plan is less than 100 percent of the actuarial accrued liability.
- ❖ For SERS, the current minimum rate of 3.50 percent ends on August 31, 2023, and is replaced with the following rates:
  - ▪ FY 2024: 2.50 percent.
  - ▪ FY 2025: 2.00 percent.
  - ▪ FY 2026: 1.50 percent.
  - ▪ FY 2027: 0.50 percent.
  - ▪ September 1, 2027, onward: A minimum of 0.50 percent.
    - ◊ The minimum rate will be effective any time the actuarial value of assets in this plan is less than 100 percent of the actuarial accrued liability.
- ❖ For TRS, the current minimum rate of 5.75 percent ends on August 31, 2023, and is replaced with the following rates:
  - ▪ FY 2024: 0.50 percent.

- FY 2025: 0.50 percent.
- FY 2026: 0.00 percent.
- FY 2027: 0.00 percent.
- September 1, 2027, onward: A minimum of 0.50 percent.
    - ◊ The minimum rate will be effective any time the actuarial value of assets in this plan is less than 100 percent of the actuarial accrued liability.

II. Lowers the one-time $800 million payment to the TRS 1 UAAL set for June 30, 2023, (see 2021 Session Law, Chapter 334 Section 747) to $250 million.

In this summary, we only include changes pertinent to our actuarial fiscal note. See the legislative bill report for a complete summary of the bill.

Effective Date: June 30, 2023.

HOW THE ESSB DIFFERS FROM THE SB VERSION

The following list includes only the changes that impact the pricing of the bill. For a complete list of changes to the current version of the bill, please refer to the bill reports prepared by legislative staff.

- ❖ Changes the prescribed rates for FY 2024 through FY 2027.
- ❖ Changes the new minimum rates as well as their effective dates.
- ❖ Lowers the one-time payment to the TRS 1 UAAL from $800 million to $250 million.
- ❖ Removes the former section 1 that made changes to RCW 41.45.060.

What Is the Current Situation?

Under current law, PERS 1 and TRS 1 UAAL rates have two components:

- ❖ **Base UAAL Rates –** The UAAL, excluding the unfunded cost of any Plan 1 benefit improvements (see below) is amortized over a rolling ten-year period, as a level percentage of projected system payroll.
    - This calculation is subject to any minimum or maximum rates.
    - RCW 41.45.150 establishes minimum rates as follows:
        - ◊ 3.50 percent for PERS, PSERS, and SERS.
        - ◊ 5.75 percent for TRS.
- ❖ **Amortization of Past Benefit Improvements –** The expected cost of benefit improvements enacted after June 30, 2009, is amortized over a fixed ten-year period as a level percentage of

projected system payroll. These rates are collected in addition to Base UAAL rates.

In addition to contribution rates, a one-time payment of $800 million to the TRS 1 UAAL is set to occur on June 30, 2023. This one-time payment is over, and above, the standard UAAL rates collected over retirement system salaries.

Who Is Impacted and How?

This bill impacts all employers of PERS, TRS, SERS, and PSERS members through an expected decrease in PERS 1 and TRS 1 UAAL contribution rates. This bill will not affect member contribution rates or their benefits.

WHY THIS BILL HAS AN EXPECTED SAVINGS AND WHO RECEIVES IT

Why This Bill Has a Savings

This bill reduces the expected employer contributions to PERS and TRS Plans 1 UAAL.

Who Will Receive These Savings?

The expected savings that result from this bill will be realized by employers of PERS, TRS, SERS, and PSERS members according to the standard funding method. PERS, SERS, and PSERS employers make PERS 1 UAAL payments, whereas TRS employers make TRS 1 UAAL payments. Any savings from the reduction of the scheduled $800 million appropriation to the TRS 1 UAAL to $250 million is expected to be realized by the General Fund-State (GF-S).

HOW WE VALUED THESE SAVINGS

We relied on our most recent 2021 Valuation Projections Model to calculate the current law cost of the retirement systems. Our Projections Model is like the Actuarial Valuation Report (AVR) but includes additional assumptions and methodology for experience beyond the measurement date. For instance, we make assumptions for demographics of new entrants and how many new entrants annually join the retirement plans. This allows the Projections Model to estimate funding progress and contribution rates at future measurement dates which was necessary to determine the impacts of this bill.

We modeled the current law cost of the retirement systems consistent with data, assets, assumptions, and methods documented on our Projections webpage. To analyze the impact of this bill, we then adjusted the following assumptions and methods.

Assumptions We Made

This bill ends the current Plans 1 minimum rates on June 30, 2023, in PERS and PSERS, and on August 31, 2023, in TRS and SERS. Further, the bill reinstates a

0.50 percent minimum rate for Plans 1 on July 1, 2027, in PERS and PSERS, and September 1, 2027, in TRS and SERS. We assumed contribution rates effective for the 2027-29 Biennium, based on the June 30, 2025, AVR, would include a minimum rate of 0.50 percent.

We assume any benefit improvements enacted after June 30, 2009, will be separately funded over a fixed ten-year period, and are not impacted under this bill.

How We Applied These Assumptions

Consistent with the bill, we modified our Projections Model for the following:

- Reduced the TRS 1 UAAL payment that was assumed to occur on June 30, 2023, from $800 million to $250 million.
- Applied lower Base UAAL contribution rates as outlined in the following tables.

Projected PERS 1 Base UAAL Rate		
FY	Current Law	Under Bill
2023	3.50%	3.50%
2024	3.50%	2.50%
2025	3.50%	2.00%
2026	3.50%	1.50%
2027	3.50%	0.50%
2028	3.50%	0.50%
2029	3.50%	0.50%
2030+	0.00%	0.00%

Projected TRS 1 Base UAAL Rate		
FY	Current Law	Under Bill
2023	5.75%	5.75%
2024	5.75%	0.50%
2025	5.75%	0.50%
2026	0.00%	0.00%
2027	0.00%	0.00%
2028	0.00%	0.50%
2029	0.00%	0.50%
2030+	0.00%	0.00%

Under this bill, Base UAAL contribution rates are prescribed for the 2023-25 and 2025-27 Biennium. Starting in FY 2028, if a Base UAAL contribution rate is required, it will be the greater of the ten-year rolling amortization rate or the new 0.50 percent minimum rate. Based on our current projections, we expect Base UAAL contribution rates of 0.50 percent for both PERS 1 and TRS 1 in the 2027-29 Biennium only.

The fiscal impact of this bill represents the expected change in projected contributions collected when we compare projected contributions under current law to projected contributions we expect under this bill. For more detail, please see **Appendix A**.

ACTUARIAL RESULTS

How the Liabilities Changed

This bill does not change the present value of future benefits payable so there is no impact on the actuarial funding of the affected plans due to liability changes.

As of our most recent 2021 AVR, we estimate the PERS 1 UAAL is $2.9 billion and the TRS 1 UAAL is $1.8 billion. These Base UAAL amounts exclude the unfunded cost of any Plan 1 benefit improvements.

How the Assets Changed

This bill does not change asset values as measured in our most recent valuation (June 30, 2021); however, it does impact assets within our Projections Model at future measurement dates. This bill reduces the expected TRS 1 assets, within our Projections Model, by $550 million beginning on June 30, 2023. In addition, we modeled lower UAAL contributions relative to our expectations under current law.

The total amount of the expected change in assets due to reduced UAAL contributions is summarized in the **How This Impacts Budgets and Employees** section. Please note that this table does not include any expected loss in investment earnings resulting from lower contributions.

How the Present Value of Future Salaries (PVFS) Changed

This bill does not change the PVFS, so there is no impact on the actuarial funding of the affected plans due to PVFS changes.

How Projected Contribution Rates Changed

Under current law, we expect the UAAL will be paid off at the end of FY 2026 for PERS and FY 2023 for TRS. Based on current law and rate-setting practices, the Base UAAL rates are expected to be collected until the end of FY 2029 for PERS and FY 2025 for TRS.

This bill prescribes new Base UAAL Rates through FY 2027, reduces the June 30, 2023, appropriation to TRS 1, and establishes new minimum UAAL rates beginning in FY 2028. Consistent with current law, the new minimum rates are effective for each system while the actuarial value of assets is less than 100 percent of the actuarial accrued liability. As a result, we expect the Plans 1 UAALs will be paid off at the end of FY 2027 for both PERS and TRS. As discussed in the **How We Applied These Assumptions** section, Base UAAL rates are expected to continue until the end of FY 2029.

The following table summarizes the Total UAAL rates used to estimate budget impacts under this bill. Please see **Appendix B** for additional details including components of the Total UAAL Rates (Base UAAL and Benefit Improvement rates) as well as the funded status displayed on an annual basis.

Projected Total UAAL Rates for Each Fiscal Year*							
Fiscal Year	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
PERS 1							
Current Law	3.85%	3.85%	3.85%	3.85%	3.85%	3.85%	3.75%
Under Bill	3.85%	2.85%	2.35%	1.85%	0.85%	0.85%	0.75%
Difference	**0.00%**	**(1.00%)**	**(1.50%)**	**(2.00%)**	**(3.00%)**	**(3.00%)**	**(3.00%)**
TRS 1							
Current Law	6.46%	6.46%	6.46%	0.71%	0.71%	0.71%	0.50%
Under Bill	6.46%	1.21%	1.21%	0.71%	0.71%	1.21%	1.00%
Difference	**0.00%**	**(5.25%)**	**(5.25%)**	**0.00%**	**0.00%**	**0.50%**	**0.50%**

**Total UAAL Rate = Base UAAL + Benefit Improvement Rate.*

Beyond FY 2029, we expect no difference in Total UAAL rates under current law and this bill. The above table relies on future experience matching our assumptions. Please see the **How the Results Change When the Assumptions Change** section for information on the impact when experience differs from our assumptions.

How This Impacts Budgets and Employees

Budget Impacts					
(Dollars in Millions)	**PERS**	**TRS**	**SERS**	**PSERS**	**Total**
2023-2025					
General Fund	($68.9)	($764.0)	($42.2)	($13.2)	($888.3)
Non-General Fund	(103.4)	0.0	0.0	(1.7)	(105.1)
Total State	**($172.3)**	**($764.0)**	**($42.2)**	**($14.9)**	**($993.4)**
Local Government	(172.3)	(134.8)	(34.5)	(6.4)	(348.0)
Total Employer	**($344.7)**	**($898.9)**	**($76.7)**	**($21.2)**	**($1,341.5)**
Total Employee	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
2025-2027					
General Fund	($146.2)	$0.0	($90.3)	($29.8)	($266.3)
Non-General Fund	(219.3)	0.0	0.0	(3.8)	(223.1)
Total State	**($365.5)**	**$0.0**	**($90.3)**	**($33.6)**	**($489.5)**
Local Government	(365.5)	0.0	(73.9)	(14.4)	(453.8)
Total Employer	**($731.0)**	**$0.0**	**($164.3)**	**($48.1)**	**($943.3)**
Total Employee	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
2023-2029					
General Fund	($401.2)	($680.3)	($248.4)	($83.2)	($1,413.1)
Non-General Fund	(601.8)	0.0	0.0	(10.7)	(612.6)
Total State	**($1,003.1)**	**($680.3)**	**($248.4)**	**($93.9)**	**($2,025.7)**
Local Government	(1,003.1)	(120.0)	(203.2)	(40.3)	(1,366.6)
Total Employer	**($2,006.2)**	**($800.3)**	**($451.6)**	**($134.2)**	**($3,392.3)**
Total Employee	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**

Note: Totals may not agree due to rounding. We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

The budget impacts within this fiscal note exclude the savings in FY 2023 of $550 million as a result of reducing the scheduled $800 million appropriation to the TRS 1 UAAL to $250 million. We assume the savings of that provision, if enacted, would be included as part of the supplemental budget bill. If the savings from the reduction of the TRS 1 UAAL appropriation were included in the table above then the 2023-29 total GF-S and Total Employer savings is $1.9631 billion and $3.9423 billion, respectively.

The analysis of this bill does not consider any other proposed changes to the systems. The combined effect of several changes to the systems could exceed the sum of each proposed change considered individually.

Comments on Risk

Our office performs annual risk assessments to help us demonstrate and assess the effect of unexpected experience on pension plans. The risk assessment allows us to measure how affordability and funded status can change if investment experience, expected state revenue growth, and inflation do not match our long-term assumptions. Our annual risk assessment also considers past practices, for funding and benefit enhancements, and their impact on pension plan risk if those practices continue.

For these measurements, we select two categories that generally compete: affordability and solvency. We measure "affordability" by comparing the amount of pension contributions from the state, as an employer, to the revenue from the state's general fund budget (or GF-S). We measure "solvency" by determining how many future scenarios for our state pension plans result in "pay-go" (premature trust fund exhaustion) or result in a funded status below 60 percent.

The following table displays our latest risk measurements as of June 30, 2021, under current law. For more information, please see our [Risk Assessment], [Commentary on Risk,] and [Glossary] webpages.

Select Measures of Pension Risk as of June 30, 2021		
	FY 2022-41	FY 2042-71
Affordability Measures		
Chance of Pensions Double their Current Share of GF-S*	1%	2%
Chance of Pensions Half their Current Share of GF-S*	44%	42%
Solvency Measures		
Chance of PERS 1, TRS 1, in Pay-Go**	<1%	2%
Chance of Open Plan in Pay-Go**	<1%	1%
Chance of PERS 1, TRS 1, Total Funded Status Below 60%	5%	1%
Chance of Open Plans Total Funded Status Below 60%	20%	31%

**Pensions approximately 4.9% of current GF-S budget; does not include higher education.*
***When today's value of annual pay-go cost exceeds $50 million.*

We would expect this bill would improve short-term affordability of the plans but the impacts to long-term affordability could vary. The affordability of the plans is impacted in three ways under this bill:

1. Short-term affordability is improved with the reduction of the payment to the TRS 1 UAAL from $800 million to $250 million scheduled for June 30, 2023.
2. Short-term affordability is improved through FY 2027 when prescribed Base UAAL contribution rates are lower than the rates expected to be collected under current law.

3. Long-term affordability can either improve or worsen under this bill.
   a. In the event of a positive UAAL in FY 2030 (or beyond), affordability can improve under this bill because Base UAAL rates would be lower than under current law. For this reason, this bill would be considered more affordable when the UAAL is present in both current law and this bill.
   b. Long-term affordability can worsen under this bill because there would be fewer surplus assets to offset possible adverse experience and required future contributions would be more likely. Additionally, any present UAAL would be funded over a longer period of time relative to current law.

It's also possible that the UAAL is paid off earlier under current law due to the additional funding from higher contribution rates. This bill becomes less affordable in those years.

Changes to plan affordability will often produce a counteractive effect on solvency. For example, as affordability improves, the solvency risks of the plans worsen under this bill compared to current law. The solvency of the plans is impacted because the Plans 1 are expected to have fewer future assets that serve as a buffer to offset any adverse future experience. To assess the impacts on solvency we ran our risk assessment under the "past practices" setting consistent with the risk measurements shown in the table above, and observed the following:

- ❖ Under the bill, in about 20 percent of the scenarios the Plans 1 fall into pay-go over the next twenty years; we expect minimal pay-go scenarios under current law.
- ❖ Under current law, in about 1 percent of the scenarios the Plans 1 do not reach full funding over the next 20 years. Under the bill, this would increase to about 30 percent.
- ❖ Over the ten-year period of FY 2027 to FY 2036, we estimate in roughly 80 percent of the scenarios the Plans 1, on average, are fully funded under current law. Under this bill, the average falls to approximately 50 percent.

The risk analysis presented here does not assume any future law changes such as changes to the minimum rate.

Additionally, this bill may impact the liquidity risks of the plans. Any changes made to the Plans 1 cash flows could impact the liquidity of the Commingled Trust Fund (CTF) and ultimately the investment earnings of the trust. If cash flows are reduced and depending on the size and timing of those reductions, liquidity issues for the CTF could arise and may require selling assets earlier than expected.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

The best estimate results can vary under a different set of assumptions. Under this bill, the PERS 1 and TRS 1 UAAL is expected to be paid off by the end of FY 2027 for both plans; however, the future asset returns can impact the funding levels of the plans and whether additional UAAL contributions are required.

To test how sensitive our best estimate results are to the return on assets assumption, we looked at what would happen under different assumed short-term and long-term return on assets experience.

Unless noted otherwise, each sensitivity or stress test was performed using data, assets, assumptions, and methods disclosed in the **How We Valued These Savings** section of this fiscal note.

Expected Short-Term Return Stress Test

While we expect the CTF to earn 7.0 percent over the long-term, short-term volatility can impact the projected funded status and the resulting contribution rate requirements. Recently, the CTF experienced significantly higher-than-expected returns in FY 2021 (31.62 percent) which can sometimes be followed by a period of lower-than-expected returns. For FY 2022, the total CTF return was approximately 0.2 percent. Given recent investment volatility, we calculated what future return on assets for FY 2023 would prevent the plans from reaching/maintaining an expected funded status of 100 percent (or higher) through FY 2029, if all other assumptions are realized. Under this stress test, we found a FY 2023 return of approximately 3.00 percent (or below) would result in a continuation of the UAAL for both plans beyond FY 2029 and UAAL contributions required for at least two additional biennia. Any UAAL would be funded through the greater of the ten-year rolling amortization rate or the minimum rate under this bill of 0.50 percent following FY 2027.

Sensitivity of Long-Term Return on Assets

In addition to a short-term stress test, we examined the overall impact if the return on assets were 1 percent higher (or lower) than assumed for all future years beginning in FY 2023.

A long-term return on assets of 8 percent annually would result in improved funding levels, relative to our best estimate, as well as an earlier UAAL payoff date for both plans. However, we expect less savings under the 8 percent return scenario because the current law projection will also have fewer expected Base UAAL payments.

A long-term return on assets of 6 percent annually is expected to result in an extension of the UAAL payoff date and UAAL contribution rate collection for both plans. In this scenario, Base UAAL contributions would be expected to continue from the 2027-29 Biennium through the 2035-37 Biennium in PERS and 2045-47 Biennium in TRS. For the 6 percent return scenario, we expect no change in budget impact prior to FY 2027, relative to our best estimate, but an expected cost from this bill beginning in FY 2028. Full funding of the plans is expected to occur under this scenario, but more significant adverse experience may prohibit the Plans 1 from reaching full funding without a higher minimum contribution rate.

Please see **Appendix C** for additional details including annual Base UAAL contribution rates and funded status under this sensitivity.

Additional Sensitivity Considerations

While we tested the sensitivity of the return on assets assumption, there are other factors that may influence plan experience. For example, future longevity of plan members can play a significant role in the funding requirements of a plan. Members living longer (or shorter) than expected would result in higher (or lower) pension obligations. Our Projections Model doesn't have the functionality to test demographic experience that differs from expectations, but our Commentary on Risk webpage (Demographic Risks section) provides examples of how mortality experience impacts AVR results.

The results of this fiscal note are also sensitive to the methods we apply when we calculate required UAAL rates under current law funding policy. A change in future methods could change the results of this fiscal note.

ACTUARY'S CERTIFICATION

The undersigned certifies that:

1. The actuarial assumptions, methods, and data used are reasonable for the purposes of this pricing exercise. The use of another set of assumptions, methods, and data may also be reasonable and might produce different results.
2. The risk analysis summarized in this Actuarial Fiscal Note (AFN) involves the interpretation of many factors and the application of professional judgment.
3. We prepared this AFN based on our current understanding of the bill as of the date shown in the footer. If the bill or our understanding of the bill changes, the results of a future AFN based on those changes may vary from this AFN. Additionally, the results of this AFN may change after our next annual update of the underlying actuarial measurements.
4. We prepared this AFN and provided opinions in accordance with Washington State law and accepted actuarial standards of practice as of the date shown in the footer of this AFN.

We prepared this AFN to support legislative deliberations during the 2023 Legislative Session. This AFN may not be appropriate for other purposes.

We advise readers of this AFN to seek professional guidance as to its content and interpretation, and not to rely on this communication without such guidance. Please read the analysis shown in this AFN as a whole. Distribution of, or reliance on, only parts of this AFN could result in its misuse and may mislead others.

The undersigned, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

While this AFN is meant to be complete, the undersigned is available to provide extra advice and explanations as needed.

Lisa Won, ASA, FCA, MAAA
Deputy State Actuary

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APPENDIX A

How We Applied These Assumptions

We estimated the fiscal impact of this bill by comparing projected pension contributions under this bill to contributions under current law. The projected employer contributions reflect the payroll of current members and future new hires.

To determine the projected contributions under current law, or the "base," we relied on projection system output. Projected pension contributions equal contribution rates from future AVRs multiplied by future payroll.

To determine the projected costs under this bill, we modified the base described above to reflect the provisions of the bill and assumptions noted earlier in this AFN. We then multiplied the respective new contribution rates by future payroll.

APPENDIX B

How the Projected Contribution Rates and Funded Status Changed

The following tables outline the expected contribution rates and funded status under current law and this bill.

PERS Plan 1 Projections							
Fiscal Year	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Current Law							
Base UAAL Rates*	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Benefit Improvement Rates	0.35%	0.35%	0.35%	0.35%	0.35%	0.35%	0.25%
Total UAAL Rates	**3.85%**	**3.85%**	**3.85%**	**3.85%**	**3.85%**	**3.85%**	**3.75%**
Funded Status of Base Benefits*	85%	91%	99%	108%	120%	133%	146%
Under Bill							
Base UAAL Rates*	3.50%	2.50%	2.00%	1.50%	0.50%	0.50%	0.50%
Benefit Improvement Rates	0.35%	0.35%	0.35%	0.35%	0.35%	0.35%	0.25%
Total UAAL Rates	**3.85%**	**2.85%**	**2.35%**	**1.85%**	**0.85%**	**0.85%**	**0.75%**
Funded Status of Base Benefits*	85%	90%	94%	98%	101%	104%	106%

**Excludes separately amortized benefit improvements. Funded status is measured as of June 30.*

TRS Plan 1 Projections							
Fiscal Year	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Current Law							
Base UAAL Rates*	5.75%	5.75%	5.75%	0.00%	0.00%	0.00%	0.00%
Benefit Improvement Rates	0.71%	0.71%	0.71%	0.71%	0.71%	0.71%	0.50%
Total UAAL Rates	**6.46%**	**6.46%**	**6.46%**	**0.71%**	**0.71%**	**0.71%**	**0.50%**
Funded Status of Base Benefits*	101%	111%	122%	126%	131%	137%	142%
Under Bill							
Base UAAL Rates*	5.75%	0.50%	0.50%	0.00%	0.00%	0.50%	0.50%
Benefit Improvement Rates	0.71%	0.71%	0.71%	0.71%	0.71%	0.71%	0.50%
Total UAAL Rates	6.46%	1.21%	1.21%	0.71%	0.71%	1.21%	1.00%
Funded Status of Base Benefits*	94%**	95%	97%	99%	101%	103%	105%

**Excludes separately amortized benefit improvements. Funded status is measured as of June 30.*
***Includes reduction of $800 million payment to $250 million payment scheduled for 6/30/2023, under this bill.*

Under current law and this bill, the funded status is expected to increase on an annual basis. This is primarily due to past investment performance. Consistent with the asset smoothing method, at each future measurement date, our Projections Model recognizes asset gains and losses that have been deferred from prior actual investment performance until those gains and losses are fully recognized. This is notable because of the FY 2021 CTF returns of 31.62 percent which significantly exceeded our expectations. The deferred asset gains from FY 2021 are steadily recognized but are not fully realized until the end of FY 2028. In addition, the funded status continues to increase because of expected returns on projected surplus assets.

APPENDIX C

How the Results Change When the Assumptions Change

The tables below display how the best estimate Base UAAL contribution rates and funded status change when the return on assets is better (or worse) than our expectation of 7 percent. Both plans are expected to reach full funding in each of these illustrations. The new long-term funding policy under this bill, which sets rates as the greater of the ten-year rolling amortization rate or 0.50 percent if a positive UAAL is measured, is expected to result in full funding being achieved in most outcomes, excluding scenarios where significant adverse experience occurs.

PERS 1 Projections—Sensitivity of Return on Assets

	6% Return		7% Return		8% Return	
FY	Base UAAL Rate	Funded Status	Base UAAL Rate	Funded Status	Base UAAL Rate	Funded Status
2023	3.50%	83%	3.50%	85%	3.50%	87%
2024	2.50%	87%	2.50%	90%	2.50%	92%
2025	2.00%	90%	2.00%	94%	2.00%	98%
2026	1.50%	93%	1.50%	98%	1.50%	104%
2027	0.50%	94%	0.50%	101%	0.50%	108%
2028	0.55%	97%	0.50%	104%	0.50%	113%
2029	0.55%	97%	0.50%	106%	0.50%	116%
2030	0.50%	97%	0.00%	107%	0.00%	119%
2031-37	0.50%	97%-106%	0.00%	108%-118%	0.00%	123%+
2038	0.00%	106%	0.00%	121%	0.00%	>150%

Note: Figures exclude separately amortized benefit improvements. Funded status is measured as of June 30.

TRS 1 Projections—Sensitivity of Return on Assets

	6% Return		7% Return		8% Return	
FY	Base UAAL Rate	Funded Status	Base UAAL Rate	Funded Status	Base UAAL Rate	Funded Status
2023	5.75%	92%	5.75%	94%	5.75%	95%
2024	0.50%	92%	0.50%	95%	0.50%	98%
2025	0.50%	93%	0.50%	97%	0.50%	102%
2026	0.00%	93%	0.00%	99%	0.00%	105%
2027	0.00%	93%	0.00%	101%	0.00%	108%
2028	0.56%	96%	0.50%	103%	0.00%	112%
2029	0.56%	95%	0.50%	105%	0.00%	113%
2030	0.50%	95%	0.00%	105%	0.00%	116%
2031-47	0.50%	94%-144%	0.00%	106%+	0.00%	119%+
2048	0.00%	>150%	0.00%	>150%	0.00%	>150%

Note: Figures exclude separately amortized benefit improvements. Funded status is measured as of June 30.

Under the 6 percent sensitivity scenario, we expect a longer continuation of Base UAAL contributions for both plans. However, Base UAAL contribution rates in TRS are expected to run longer than PERS given the smaller salary base over which contributions are collected for TRS. Under this scenario, the funded status in TRS is expected to be larger than 150 percent when contribution rates shut-off. This is due to two primary reasons: (1) there is a delay between the timing of when full funding is achieved, and contribution rates cease and (2) as the plan continues to mature the total liabilities continuously decrease while the salary base for contribution rate collection continuously increases. This leads to the collection of additional years of contributions that are disproportionately large relative to the plans remaining expected obligations.