Multiple Agency Fiscal Note Summary

Bill Number: 6340 S SB PL	**Title:** PERS/TRS 1 benefit increase

Estimated Cash Receipts

NONE

Estimated Expenditures

Agency Name	2017-19			2019-21			2021-23		
	FTEs	GF-State	Total	FTEs	GF-State	Total	FTEs	GF-State	Total
Department of Retirement Systems	.2	0	110,048	.0	0	0	.0	0	0
Actuarial Fiscal Note - State Actuary	.0	13,200,000	15,700,000	.0	29,200,000	35,500,000	.0	31,900,000	38,600,000
Total	**0.2**	**$13,200,000**	**$15,810,048**	**0.0**	**$29,200,000**	**$35,500,000**	**0.0**	**$31,900,000**	**$38,600,000**

Estimated Capital Budget Impact

NONE

Prepared by: Jane Sakson, OFM	**Phone:** 360-902-0549	**Date Published:** Final 3/26/2018

* See Office of the Administrator for the Courts judicial fiscal note

** See local government fiscal note

FNPID: 53090

Individual State Agency Fiscal Note

Bill Number: 6340 S SB PL	Title: PERS/TRS 1 benefit increase	Agency: 124-Department of Retirement Systems

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

	FY 2018	FY 2019	2017-19	2019-21	2021-23
FTE Staff Years	0.3	0.0	0.2	0.0	0.0
Account					
Department of Retirement Systems Expense Account-State 600-1	110,048	0	110,048	0	0
Total $	110,048	0	110,048	0	0

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:		Phone:	Date: 03/09/2018
Agency Preparation:	Rose Bossio	Phone: 360-664-7286	Date: 03/09/2018
Agency Approval:	Tracy Guerin	Phone: 360-664-7312	Date: 03/09/2018
OFM Review:	Jane Sakson	Phone: 360-902-0549	Date: 03/09/2018

Part II: Narrative Explanation

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

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

This bill provides retirees of Plan 1 of the Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS) who are receiving a monthly benefit on July 1, 2017 a one-time benefit adjustment of one and one-half percent multiplied by their monthly benefit, not to exceed sixty-two dollars and fifty cents, effective July 1, 2018.

The House floor amendment (PRIN 586) reduced the one-time adjustment from two percent to one and one-half percent. That change does not impact the agency's implementation costs.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

No impact.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

Administrative Assumptions:

• This will require a new one-time process to create a permanent increase to PERS Plan 1 and TRS Plan 1 benefits calculated on their current monthly benefit including eligible adjustments.
• The increase will be applied retroactively to July 1, 2018.
• Retirees who have the Auto COLA or Age 65 COLA will be eligible for this increase.
  - The Auto COLA or Age 65 COLA will be applied first, and the increase will be calculated after that.
  - Future Auto COLA or age 65 COLA increases will not include this increase. Programming will need to be modified.
• The increase will be included when determining future Adjusted Minimum Benefit (AMB) and Minimum Benefit Increase (BMI) eligibility.
  - Eligibility for the July 2018 minimum increase will be determined before this one-time increase is applied.
  - Since AMBs are applied monthly, some customers may be granted an AMB increase after July 1, 2018. In an effort to prevent overpayments we will continue to apply as normal and a report will be created after applying the new increase. This report will identify accounts who received an AMB adjustment after July 1, 2018 of less than $62.50. A manual comparison of the two increases will be conducted. If the new increase results in a larger benefit, the account will be manually adjusted.
• The increase will not be given to PERS Plan 1 and TRS Plan 1 accounts that are receiving a minimum increase (AMB/BMI), or temporary disability retirements.
• All prior Uniform COLAs and gain sharing increases will be included in calculating the increase.
• This increase will not apply to future CPI-Based COLAs, so banking will not apply because this is an increase, not a COLA.

The assumptions above were used in developing the following workload impacts and cost estimates.

Benefits/Customer Service:

Retirement Specialists (RSs) will support the modifications of DRS' automated systems by participating in business requirement development and user acceptance testing activities. RSs will assist in updates to member communications and internal reference and training materials. RSs will review a report to compare and adjust accounts which may be affected between the effective date of the bill and the retroactive implementation. RSs will provide additional customer service to respond to a higher volume of customer calls when this legislation goes into effect.

Retirement Specialist 3 – 350 hours (salary/benefits) = $13,078

Member Communications:

DRS Communication team will update publications and the agency's website to communicate changes to impacted retirees.

Communications Consultant 5 – 40 hours (salaries/benefits) = $1,981

Automated Systems:

The agency's Benefit System will need to be modified to apply the adjustment, and testing will need to be performed.

Contracted Programmer time of 780 hours @ 95 per hour = $74,100
Information Technology Specialist 4 – 230 hours (salaries/benefits) = $11,389
WaTech* cost of $500 per week for 19 weeks = $9,500

Total Estimated Automated Systems Costs = $94,989

*cost for mainframe computer processing time and resources at WaTech

ESTIMATED TOTAL COST TO IMPLEMENT THIS BILL: $110,048

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2018	FY 2019	2017-19	2019-21	2021-23
FTE Staff Years	0.3		0.2		
A-Salaries and Wages	19,188		19,188		
B-Employee Benefits	7,260		7,260		
C-Professional Service Contracts					
E-Goods and Other Services	83,600		83,600		
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:	$110,048	$0	$110,048	$0	$0

III. B - Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

Job Classification	Salary	FY 2018	FY 2019	2017-19	2019-21	2021-23
Communications Consultant 5	76,463	0.0		0.0		
Information Technology Specialist 4	76,463	0.1		0.1		
Retirement Specialist 3	55,472	0.2		0.1		
Total FTEs		0.3		0.2		0.0

Part IV: Capital Budget Impact

No impact.

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

No impact.

Individual State Agency Fiscal Note

Bill Number: 6340 S SB PL	Title: PERS/TRS 1 benefit increase	Agency: AFN-Actuarial Fiscal Note - State Actuary

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

		FY 2018	FY 2019	2017-19	2019-21	2021-23
Account						
All Other Funds-State	000-1	0	2,500,000	2,500,000	6,300,000	6,700,000
General Fund-State	001-1	0	13,200,000	13,200,000	29,200,000	31,900,000
	Total $	0	15,700,000	15,700,000	35,500,000	38,600,000

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:		Phone:	Date: 03/09/2018
Agency Preparation:	Corban Nemeth	Phone: 360-786-6161	Date: 03/26/2018
Agency Approval:	Luke Masselink	Phone: 360-786-6154	Date: 03/26/2018
OFM Review:	Jane Sakson	Phone: 360-902-0549	Date: 03/26/2018

Part II: Narrative Explanation

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

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

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2018	FY 2019	2017-19	2019-21	2021-23
FTE Staff Years					
A-Salaries and Wages					
B-Employee Benefits		15,700,000	15,700,000	35,500,000	38,600,000
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:	$0	$15,700,000	$15,700,000	$35,500,000	$38,600,000

Part IV: Capital Budget Impact

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

SUMMARY OF RESULTS

BRIEF SUMMARY OF BILL: For all eligible PERS 1 and TRS 1 retirees, this bill enacts a one-time permanent increase equal to 1.5 percent of their benefit, not to exceed a maximum of $62.50 per month.

COST SUMMARY

Impact on Contribution Rates (Effective 9/1/2018)				
System/Plan	**PERS**	**TRS**	**SERS**	**PSERS**
Plan 1 UAAL	0.10%	0.21%	0.10%	0.10%

Consistent with RCW 41.45.070, PERS, PSERS, SERS, and TRS employers will fund the cost of this benefit improvement through a supplemental contribution rate starting September 1, 2018. There is no impact to employee rates from this bill.

Budget Impacts			
(Dollars in Millions)	**2018-2019**	**2019-2021**	**10-Year**
General Fund-State	$13.2	$29.2	$167.7
Local Government	$7.8	$18.5	$103.1
Total Employer	$23.5	$54.1	$305.4

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.

HIGHLIGHTS OF ACTUARIAL ANALYSIS

- This bill provides larger benefits to eligible PERS 1 and TRS 1 annuitants than the benefits provided under current law.
- Because the increased benefits under this bill were not anticipated or funded during affected members' careers, the bill will increase the UAAL in PERS 1 and TRS 1.
- Based on the data, assumptions, and methods disclosed in the fiscal note, the bill increases the PERS 1 UAAL by $104.6 million and the TRS 1 UAAL by $96.5 million (on a present value basis). Consistent with current funding policy, the cost of this bill will result in an increase in the PERS 1 UAAL rate of 0.10 percent and TRS 1 UAAL rate of 0.21 percent. That additional rate will be collected for ten years starting September 1, 2018.
- The cost of this bill could vary from our best estimate if actual experience varies from our assumptions. For more information, please see the **How The Results Change When The Assumptions Change** section of the fiscal note.

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

WHAT IS THE PROPOSED CHANGE?

Summary Of Benefit Improvement

This bill impacts the following systems:

- Public Employees' Retirement System (PERS) Plan 1.
- Teachers' Retirement System (TRS) Plan 1.

This bill enacts a one-time permanent increase to monthly retirement benefits for members of the PERS 1 and TRS 1 systems of 1.5 percent multiplied by their monthly benefit, not to exceed $62.50 for all members who received a monthly benefit on July 1, 2017. Annuitants receiving Basic Minimum, Alternate Minimum, or temporary disability benefits are not eligible for the benefit increase under this bill.

Effective Date: July 1, 2018.

HOW THE SUBSTITUTE DIFFERS FROM THE ORIGINAL VERSION

The original version provided a 3 percent benefit increase, capped at $62.50. This substitute version provides a 1.5 percent benefit increase, also capped at $62.50.

What Is The Current Situation?

Before it was repealed in 2011, the primary Cost-Of-Living Adjustment (COLA) provided in the Plans 1 was the Uniform Cost-Of-Living Adjustment (UCOLA). The UCOLA was a fixed dollar amount multiplied by the member's total years of service and increased annually by 3 percent every July 1. The UCOLA was payable on the first calendar year in which the recipient turned age 66 and had been retired for one year. By July 1, 2010, the UCOLA was $1.88 per month/per year of service. This amounted to an annual increase of $677 for a recipient with 30 years of service.

Statute specified that future increases to the UCOLA were not a contractual right and the Legislature exercised the option to discontinue the UCOLA for most plan members during the 2011 Legislative Session.

Currently, the PERS and TRS Plans 1 provide automatic COLAs under two types of minimum retirement benefits only: the Basic and the Alternate.

The Basic Minimum is a fixed dollar amount per month multiplied by the member's total years of service and increases on July 1 every year by the dollar amount of the UCOLA. The Basic Minimum is currently $57.50*. If a member's benefit falls below this amount, they receive the UCOLA annual increase, which will be $2.39/month per year of service on July 1, 2018.

The Alternate Minimum is a fixed dollar amount per month (currently $1,844.81*) that increases by 3 percent each year. Eligible members must have at least:

- 20 years of service and be retired for at least 25 years, or
- 25 years of service and be retired for at least 20 years.

An optional Consumer Price Index (CPI)-based automatic COLA is available to the Plans 1 members who elect it at retirement. The auto-COLA was first made available in 1990, and provides an annual percentage increase in the retirement allowance. The increase is based on changes in the CPI for Urban Wage Earners and Clerical Workers for Seattle-Tacoma-Bremerton, up to a maximum of 3 percent per year. The auto-COLA begins one year after retirement—regardless of age or service—and is in addition to any other COLAs received. Members who elect the auto-COLA receive an actuarially reduced retirement allowance to offset the expected cost of the COLA over their lifetime.

**As of July 1, 2017. Note: The Alternate and Basic Minimum amounts are adjusted if the member elects voluntary payment options upon retirement. Throughout this fiscal note, we refer to the Basic and Alternate Minimum amounts prior to any voluntary reductions.*

Who Is Impacted And How?

As of June 30, 2016, we expect this bill would affect retirement benefits of approximately 39,400 out of the 49,300 PERS 1 annuitants and 32,000 out of the 34,800 TRS 1 annuitants. This bill will increase the benefits for a typical annuitant by providing a one-time COLA during retirement. We estimate the average eligible PERS 1 and TRS 1 annuitant would receive a benefit increase of $32 and $33 per month, respectively.

This bill impacts all PERS, TRS, School Employees' Retirement System (SERS), and Public Safety Employees' Retirement System (PSERS) employers through increased Unfunded Actuarial Accrued Liability (UAAL) contribution rates. This bill will not affect member contribution rates.

WHY THIS BILL HAS A COST AND WHO PAYS FOR IT

Why This Bill Has A Cost

This bill has a cost because it provides larger benefits for eligible PERS and TRS Plans 1 annuitants than the benefits provided under current law.

Who Will Pay For These Costs?

The costs from this bill will be paid by employers of PERS, TRS, SERS, and PSERS according to the standard funding method.

HOW WE VALUED THESE COSTS

Assumptions We Made

This analysis includes the most recent economic assumptions adopted by the Pension Funding Council (PFC) during the 2017 Interim. These adoptions lowered the assumed long-term rate of investment return to 7.50 percent, the general salary growth assumption to 3.50 percent, and the inflation assumption to 2.75 percent. Otherwise, we used the same assumptions for this fiscal note as we disclosed in the *June 30, 2016 Actuarial Valuation Report* (AVR).

How We Applied These Assumptions

We updated our June 30, 2016, actuarial valuation model to reflect the increased benefits from the one-time COLA under this bill. We compared the results to our base valuation model under current law and recorded the changes in actuarial measurements.

Consistent with our understanding of the bill, we adjusted our valuation such that all currently retired members not already receiving a COLA through the Basic or Alternate Minimum monthly benefit, receive a one-time 1.5 percent COLA subject to a $62.50 cap. We amortized the cost of this benefit improvement over a fixed ten-year period, consistent with PERS and TRS Plan 1 funding policy for benefit improvements.

For this pricing, we excluded members who previously terminated with vested benefits and had not yet retired at June 30, 2016. A portion of these members could retire by July 1, 2017, and become eligible for the COLA under this bill. The addition of this group, however, would not change the UAAL rate increases and the budget impacts provided in this analysis.

Otherwise, we developed these costs using the same methods as disclosed in the AVR.

Special Data Needed

There was no special data needed for this pricing.

We used data from the AVR to price this benefit improvement. We reviewed the expected impact to the pricing if we were to use more recent data to reflect the estimated number of eligible members between June 30, 2016, and the effective date of the COLA under this bill. We found the impacts were not material to this pricing.

ACTUARIAL RESULTS

How The Liabilities Changed

This bill will impact the actuarial funding of PERS 1 and TRS 1 by increasing the present value of future benefits payable under the systems as shown on the next page.

Impact on Pension Liability			
(Dollars in Millions)	**Current***	**Increase**	**Total**
Actuarial Present Value of Projected Benefits			
(The Value of the Total Commitment to All Current Members)			
PERS 1	**$12,605**	**$104.6**	**$12,710**
TRS 1	**$9,067**	**$96.5**	**$9,163**
Unfunded Actuarial Accrued Liability			
*(The Portion of the Plan 1 Liability that is Amortized According to Funding Policy)***			
PERS 1	**$5,452**	**$104.6**	**$5,557**
TRS 1	**$3,551**	**$96.5**	**$3,647**
Unfunded Entry Age Accrued Liability			
(The Value of the Total Commitment to All Current Members Attributable to Past Service that is Not Covered by Current Assets)			
PERS 1	**$5,561**	**$104.6**	**$5,666**
TRS 1	**$3,600**	**$96.5**	**$3,697**

Note: Totals may not agree due to rounding.
**Current liabilities will not match the 2016 AVR. The liabilities reflect updated economic assumptions adopted by the PFC after the publication of the AVR.*
***PERS 1 and TRS 1 are amortized over a ten-year period.*

How The Assets Changed

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

How The Present Value Of Future Salaries (PVFS) Changed

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

How Contribution Rates Changed

The rounded increase in the required actuarial contribution rate results in the supplemental contribution rate shown on page one that applies in the current biennium. This fixed rate is collected for a ten-year period, consistent with how benefit improvements are funded in PERS 1 and TRS 1 under RCW 41.45.070.

Impact on Contribution Rates (Effective 9/1/2018)				
System/Plan	**PERS**	**TRS**	**SERS**	**PSERS**
Current Members				
Employee (Plan 2)	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Employer				
Normal Cost	0.00%	0.00%	0.00%	0.00%
Plan 1 UAAL	0.10%	0.21%	0.10%	0.10%
Total	**0.10%**	**0.21%**	**0.10%**	**0.10%**
New Entrants*				
Employee (Plan 2)	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Employer				
Normal Cost	0.00%	0.00%	0.00%	0.00%
Plan 1 UAAL	0.10%	0.21%	0.10%	0.10%
Total	**0.10%**	**0.21%**	**0.10%**	**0.10%**

**Rate change applied to future new entrant payroll and used to determine budget impacts only. Current members and new entrants pay the same contribution rate.*

How This Impacts Budgets And Employees

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.

As with the costs developed in the actuarial valuation, the emerging costs of the systems will vary from those presented in the AVR or this fiscal note to the extent that actual experience differs from the actuarial assumptions.

Budget Impacts					
(Dollars in Millions)	**PERS**	**TRS**	**SERS**	**PSERS**	**Total**
2018-2019					
General Fund	$1.7	$10.2	$1.2	$0.1	$13.2
Non-General Fund	2.5	0.0	0.0	0.0	2.5
Total State	**$4.2**	**$10.2**	**$1.2**	**$0.2**	**$15.7**
Local Government	4.7	2.1	0.8	0.2	7.8
Total Employer	**$8.9**	**$12.3**	**$1.9**	**$0.3**	**$23.5**
Total Employee	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
2019-2021					
General Fund	$4.2	$22.0	$2.7	$0.3	$29.2
Non-General Fund	6.3	0.0	0.0	0.0	6.3
Total State	**$10.5**	**$22.0**	**$2.7**	**$0.4**	**$35.5**
Local Government	11.9	4.5	1.7	0.4	18.5
Total Employer	**$22.4**	**$26.5**	**$4.3**	**$0.8**	**$54.1**
Total Employee	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
2018-2028					
General Fund	$22.9	$128.3	$14.6	$1.9	$167.7
Non-General Fund	34.4	0.0	0.0	0.3	34.7
Total State	**$57.3**	**$128.3**	**$14.6**	**$2.1**	**$202.4**
Local Government	65.2	26.3	9.3	2.3	103.1
Total Employer	**$122.5**	**$154.6**	**$23.9**	**$4.4**	**$305.4**
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.

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 more information, please see our *Risk Assessment* webpage.

At this time we have only prepared a qualitative risk analysis and may submit a revised fiscal note at a future date with quantitative risk analysis. The results of any future quantitative risk analysis could vary from this preliminary risk analysis.

Increasing PERS 1 and TRS 1 annuitant benefits will increase the chance of those plans entering pay-go status as well as increase the cost of benefits required if the plan enters pay-go. See the *Risk Assessment* page on our website for additional background information on plan risks before this proposed plan change.

This bill provides a one-time, permanent COLA for eligible annuitants. If the Legislature develops a repeated pattern of providing similar one-time COLAs in the future, the Office of the State Actuary may be required to reflect an assumption of future COLAs when performing actuarial valuations and determining future contribution requirements. While future experience will determine the ultimate plan costs, including a Plan 1 COLA assumption could have a large impact to short-term budgets, projected Plan 1 pay-off dates, and the pension risk measures.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

We made many assumptions to price this bill. The most significant assumptions include the rates of future investment return and mortality.

If the plan realizes investment returns higher than the prescribed long-term assumption of 7.5 percent per year, then the costs of this bill will be less than the costs shared on page one of this fiscal note. Conversely, if the plan realizes investment returns lower than the prescribed long-term assumption of 7.5 percent per year, then the costs of this bill will be more than the costs shared on page one.

Similar to changes in investment returns, if members of PERS 1 and TRS 1 live longer than expected, the costs of this bill will be more expensive than the costs shared on page one. Conversely, if members of PERS 1 and TRS 1 live shorter than expected, the costs of this bill will be less expensive than the costs shared on page one.

The table below outlines how the liability impacts attributable to this bill change when we assume the investment return is lower or higher than the prescribed assumption (labeled as "best estimate").

Impact of Higher/Lower Assumed Returns on Pension Liability			
(Dollars in Millions)	**Higher 8.5%**	**Best Estimate 7.5%**	**Lower 6.5%**
PERS 1	**$99.1**	**$104.6**	**$110.7**
Percent Change from Best Estimate	(5.3%)		5.8%
TRS 1	**$91.3**	**$96.5**	**$102.2**
Percent Change from Best Estimate	(5.4%)		5.9%

Likewise, the table on the next page outlines how the liability impacts attributable to this bill change when we assume higher or lower rates of future mortality than our best estimate. For higher mortality, we assumed members experience mortality as if they were one year older than their current age under our best estimate. For lower mortality, we assumed members experience mortality as if they were one year younger than their current age under our best estimate.

Impact on Pension Liability			
(Dollars in Millions)	Higher Mortality	Best Estimate	Lower Mortality
PERS 1	**$103.0**	**$104.6**	**$106.1**
Percent Change from Best Estimate	(1.5%)		1.4%
TRS 1	**$95.2**	**$96.5**	**$97.7**
Percent Change from Best Estimate	(1.3%)		1.3%

If the liability increase from this bill is more or less than expected, it will be funded through higher/lower UAAL contributions as defined in RCW 41.45.010. This can occur up to and beyond the ten-year supplemental rate period as required. Under current law, the supplemental rate described on page one, or how long that supplemental rate is collected, will not change if the liability increase from this bill is more or less than expected.

For example, if future investments return 6.5 percent instead of 7.5 percent per year, the costs associated with this bill will increase by $6.1 million for PERS 1 and $5.7 million for TRS 1 on a present value basis. Therefore, the ten-year funding of the supplemental rate, under this example, would fall short of collecting the full cost of this bill and the remaining unfunded costs from this bill would be funded through higher UAAL contributions.

The two scenarios shown above are provided for illustration purposes only. The actual cost of this bill may be more or less than shown in these examples.

WHAT THE READER SHOULD KNOW

The Office of the State Actuary ("we") prepared this fiscal note based on our understanding of the bill as of the date shown in the footer. We intend this fiscal note to be used by the Legislature during the 2018 Legislative Session only.

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

ACTUARY'S CERTIFICATION

The undersigned hereby certifies that:

1. The actuarial cost and asset valuation methods are appropriate for the purposes of this pricing exercise.
2. The actuarial assumptions used are appropriate for the purposes of this pricing exercise.
3. The data on which this fiscal note is based are sufficient and reliable for the purposes of this pricing exercise.
4. Use of another set of methods and assumptions may also be reasonable, and might produce different results.
5. We prepared this fiscal note for the Legislature during the 2018 Legislative Session.
6. We prepared this fiscal note 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 fiscal note.

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

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

Luke Masselink, ASA, EA, MAAA
Senior Actuary

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GLOSSARY OF ACTUARIAL TERMS

Actuarial Accrued Liability: Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the present value of fully projected benefits attributable to service credit that has been earned (or accrued) as of the valuation date.

Actuarial Present Value: The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions (i.e., interest rate, rate of salary increases, mortality, etc.).

Aggregate Funding Method: The Aggregate Funding Method is a standard actuarial funding method. The annual cost of benefits under the Aggregate Method is equal to the normal cost. Under this method, all plan costs (for past and future service credit) are included under the normal cost. Therefore, the method does not produce an unfunded actuarial accrued liability outside the normal cost. It's most common for the normal cost to be determined for the entire group rather than on an individual basis for this method.

Entry Age Normal Cost Method (EANC): The EANC method is a standard actuarial funding method. The annual cost of benefits under EANC is comprised of two components:

- ❖ Normal cost.
- ❖ Amortization of the unfunded actuarial accrued liability.

The normal cost is most commonly determined on an individual basis, from a member's age at plan entry, and is designed to be a level percentage of pay throughout a member's career.

Normal Cost: Computed differently under different funding methods, the normal cost generally represents the portion of the cost of projected benefits allocated to the current plan year.

Projected Benefits: Pension benefit amounts that are expected to be paid in the future taking into account such items as the effect of advancement in age as well as past and anticipated future compensation and service credits.

Unfunded Actuarial Accrued Liability (UAAL): The excess, if any, of the actuarial accrued liability over the actuarial value of assets. In other words, the present value of benefits earned to date that are not covered by plan assets.

Unfunded EAN Liability: The excess, if any, of the present value of benefits calculated under the EAN cost method over the valuation assets. This is the portion of all benefits earned to date that are not covered by plan assets.