

Multiple Agency Fiscal Note Summary

Bill Number: 1804 HB	Title: Military service credit
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Estimated Cash Receipts

NONE

Estimated Operating Expenditures

Agency Name	2021-23				2023-25				2025-27			
	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total
Department of Retirement Systems	.1	0	0	24,228	.0	0	0	0	.0	0	0	0
Actuarial Fiscal Note - State Actuary	.0	200,000	200,000	300,000	.0	600,000	600,000	1,100,000	.0	600,000	600,000	1,000,000
Total \$	0.1	200,000	200,000	324,228	0.0	600,000	600,000	1,100,000	0.0	600,000	600,000	1,000,000

Estimated Capital Budget Expenditures

Agency Name	2021-23			2023-25			2025-27		
	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
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Individual State Agency Fiscal Note

Bill Number: 1804 HB	Title: Military service credit	Agency: 124-Department of Retirement Systems
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Part I: Estimates

☐ No Fiscal Impact

Estimated Cash Receipts to:

NONE

Estimated Operating Expenditures from:

	FY 2022	FY 2023	2021-23	2023-25	2025-27
FTE Staff Years	0.0	0.3	0.1	0.0	0.0
Account					
Department of Retirement Systems	0	24,228	24,228	0	0
Expense Account-State 600-1					
Total \$	0	24,228	24,228	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: David Pringle	Phone: 360-786-7310	Date: 01/18/2022
Agency Preparation: Candice Myrum	Phone: 360-664-7124	Date: 01/19/2022
Agency Approval: Tracy Guerin	Phone: 360-664-7312	Date: 01/19/2022
OFM Review: Marcus Ehrlander	Phone: (360) 489-4327	Date: 01/19/2022

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 would amend RCW 41.04.005 to expand the definition of veteran to include those who have received an expeditionary medal, campaign badge or medal in any armed conflict, rather than limiting it to a campaign badge or medal in certain listed conflicts.

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.

Administrative Assumptions:

- The revised definition would apply to all members with eligible military service credit in all systems, including those who have previously applied for and been denied service credit because their service did not meet the current definition.
- DRS should review past military service credit requests to determine if they would be eligible for service credit under the new definition.
- DRS estimates that there are over 900 accounts to review for eligibility.
- Members who purchased partially subsidized service credit and whose service meets the new eligibility requirements would receive a refund of their prior payment.
- Retirees whose service meets the new eligibility requirements would :
 - o Receive a refund of their prior payment made for eligible service credit, and
 - o Have their pension benefit recalculated prospectively only (no retroactive pension benefit payments)

To implement this legislation DRS will:

- Update member guides on the DRS website,
- Update agency reference materials,
- Confirm project scope and tasks for the Retirement Services Division,
- Identify impacted members,
- Research accounts to determine refund eligibility,
- Create refunds for eligible service credit and
- Communicate to affected members by letter.

To support this implementation, DRS will form a project team that will include a communication consultant, retirement specialist and fiscal analyst.

Part III: Expenditure Detail

III. A - Operating Budget Expenditures

Account	Account Title	Type	FY 2022	FY 2023	2021-23	2023-25	2025-27
600-1	Department of Retirement Systems Expense Account	State	0	24,228	24,228	0	0
Total \$			0	24,228	24,228	0	0

III. B - Expenditures by Object Or Purpose

	FY 2022	FY 2023	2021-23	2023-25	2025-27
FTE Staff Years		0.3	0.1		
A-Salaries and Wages		17,476	17,476		
B-Employee Benefits		6,752	6,752		
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	24,228	24,228	0	0

III. C - Operating FTE 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 2022	FY 2023	2021-23	2023-25	2025-27
Communications Consultant 5	84,396		0.1	0.0		
Fiscal Analyst 2	54,108		0.0	0.0		
Retirement Specialist 3	61,224		0.2	0.1		
Total FTEs			0.3	0.1		0.0

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

Identify acquisition and construction costs not reflected elsewhere on the fiscal note and describe potential financing methods

NONE

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

NONE

Part V: New Rule Making Required

Individual State Agency Fiscal Note

Bill Number: 1804 HB	Title: Military service credit	Agency: AFN-Actuarial Fiscal Note - State Actuary
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Part I: Estimates

☐ No Fiscal Impact

Estimated Cash Receipts to:

NONE

Estimated Operating Expenditures from:

	FY 2022	FY 2023	2021-23	2023-25	2025-27
Account					
All Other Funds-State 000-1	0	100,000	100,000	500,000	400,000
General Fund-State 001-1	0	200,000	200,000	600,000	600,000
Total \$	0	300,000	300,000	1,100,000	1,000,000

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: 01/18/2022
Agency Preparation: Aaron Gutierrez	Phone: 360-786-6152	Date: 01/19/2022
Agency Approval: Kyle Stineman	Phone: 3607866153	Date: 01/19/2022
OFM Review: Marcus Ehrlander	Phone: (360) 489-4327	Date: 01/19/2022

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 - Operating Budget Expenditures

Account	Account Title	Type	FY 2022	FY 2023	2021-23	2023-25	2025-27
000-1	All Other Funds	State	0	100,000	100,000	500,000	400,000
001-1	General Fund	State	0	200,000	200,000	600,000	600,000
Total \$			0	300,000	300,000	1,100,000	1,000,000

III. B - Expenditures by Object Or Purpose

	FY 2022	FY 2023	2021-23	2023-25	2025-27
FTE Staff Years					
A-Salaries and Wages					
B-Employee Benefits		300,000	300,000	1,100,000	1,000,000
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	300,000	300,000	1,100,000	1,000,000

III. C - Operating FTE Detail: List FTEs by classification and corresponding annual compensation. Totals need to 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

Identify acquisition and construction costs not reflected elsewhere on the fiscal note and describe potential financing methods

NONE

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

NONE

Part V: New Rule Making Required

SUMMARY OF RESULTS

BRIEF SUMMARY OF BILL: Expands the definition of veteran to include individuals who received an Expeditionary medal (or badge) during any armed conflict.

COST SUMMARY

Impact on Contribution Rates (Effective 09/01/2022)				
FY 2023 State Budget	PERS	PSERS	LEOFF	WSPRS
Employee (Plan 2 or WSPRS)	0.00%	0.00%	0.02%	0.13%
Employer	0.00%	0.00%	0.01%	0.13%
State			0.01%	

Budget Impacts			
(Dollars in Millions)	2022-2023	2023-2025	25-Year
General Fund-State	\$0.2	\$0.6	\$6.3
Local Government	\$0.2	\$1.0	\$10.0
Total Employer	\$0.6	\$2.1	\$20.3

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.

HIGHLIGHTS OF ACTUARIAL ANALYSIS

- ❖ We estimate this bill will have a cost to the impacted plans because more members are expected to receive fully subsidized IMSC and consequently larger pension benefits.
 - We expect the impacts of this bill are immaterial to all plans in TRS and SERS, as well as PERS 1 and LEOFF 1.
- ❖ To estimate the cost of this bill, we primarily relied on data from DRS regarding IMSC granted in the past for Campaign medals.
 - Based upon data from the DoD, we assumed IMSC for Expeditionary medals will be granted at a rate approximately 25 percent lower relative to Campaign medals.
- ❖ The actual amount of IMSC granted under this bill is heavily dependent on the levels of troop engagement and medals awarded. This includes both (1) future unknown conflicts, and (2) members who earned an Expeditionary medal in the past but did not purchase partially subsidized IMSC upon return. As a result, the cost of this bill could be significantly higher (or lower) than assumed.
 - This bill is not expected to materially increase the affordability and solvency risks of the plans.

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).
- ❖ Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF).
- ❖ Washington State Patrol Retirement System (WSPRS).

This bill expands the definition of veteran in subsection (2)(g) of the [Revised Code of Washington \(RCW\) 41.04.005](#) to include any participant who was awarded the respective Expeditionary medal (or badge). This change expands the eligibility criteria for certain retirement system benefits (e.g., Interruptive Military Service Credit [IMSC]).

Based on their administrative interpretation of the bill, the Department of Retirement Systems (DRS) has determined this bill would apply as follows:

- ❖ Members who purchased partially subsidized service credit and whose service meets the new eligibility requirements would receive a refund of their member contributions for any prior payment.
- ❖ Increase in Pension Benefit Prospectively:
 - Fully subsidized IMSC will be provided to eligible members who were awarded an Expeditionary medal (or badge); however, did not purchase partially subsidized military service upon returning to their DRS-covered position.
 - Fully subsidized IMSC will be provided to eligible members awarded Expeditionary medals (or badges) in the future.

Assumed Effective Date: 90 days after session.

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.

What Is the Current Situation?

The definition of "veteran" in RCW 41.04.005 is used to determine eligibility for pension benefits related to military service credit for all plans. This definition is also used for other purposes, but only the impacts to pension benefits are covered in this fiscal note.

To qualify as a veteran under this statute, a member must have either:

- ❖ Served during one of the wars listed (e.g., World War II); or
- ❖ Been awarded the respective Campaign medal (or badge) for any armed conflicts (e.g., the invasions of Grenada or Panama, etc.)

Campaign and Expeditionary medals recognize service members for participation in military campaigns and expeditions, and significant military operations. Eligibility and criteria are based on a service member's degree of personal risk and hardship, participation in designated military operations, and the extent of service during specified time periods.

- ❖ Campaign medals are associated with the highest level of personal risk and hardship. These medals recognize deployed participation in large-scale or long-duration combat operations and are awarded to service members who are deployed to the geographic areas where combat is occurring.
- ❖ Expeditionary medals are associated with high levels of personal risk and hardship. These medals recognize deployed participation in small scale and/or short duration combat operations or military operations where there is an imminent threat of hostilities. These medals are also awarded to members deployed in support of combat operations, but who are not in the geographic area where combat is occurring.

Interruptive Military Service Credit

Members of PERS, TRS, SERS, PSERS, LEOFF, and WSPRS qualify for IMSC when they take a leave of absence from their DRS-covered position to serve in the United States military and return to work within 90 days of honorable discharge.

Members can receive up to ten years of IMSC of which:

- ❖ Up to five years at no cost to the member (i.e., fully subsidized) if the member's service took place during a period of war or an armed conflict during which a Campaign medal (or badge) was earned.
- ❖ Up to five years can be purchased by the member (i.e., partially subsidized) if their military service did not take place during a period of war. In this scenario, the member pays the member contribution cost for those years.

Additionally, in the event a member dies while honorably serving in the national guard or military reserves during a period of war, the member's beneficiary or estate is entitled to the following:

- ❖ For PERS, TRS, SERS, or PSERS: Retirement allowance is not subject to actuarial reduction.
- ❖ For LEOFF or WSPRS: Duty-related death benefits provided in the respective plan.

Non-Interruptive Military Service Credit

PERS 1 and WSPRS 1 also have provisions for non-interruptive military service credit. After completing 25 Years Of Service (YOS) credit in these plans, members with service in the armed forces (as defined in RCW 41.04.005) may be credited up to five years of military service whether or not they left the employment of a participating employer to serve.

Who Is Impacted and How?

This bill could affect all current and future members of the impacted plans through improved benefits by changing the definition of veteran for fully subsidized IMSC. In other words, the definition of veteran is expanded to cover all members who were awarded an Expeditionary medal.

The benefits of eligible members can be improved in two ways:

1. **Increase in Pension Benefit:** This bill will increase the pension benefits by providing additional service credit to members who were awarded an Expeditionary medal in the past or are awarded this medal in the future.

For example, a Plan 2 member who retires with an average final salary of \$100,000 and 25 YOS under current law will receive an initial annual benefit of \$50,000 per year at retirement. If the same member had six months of fully subsidized IMSC, then their annual benefit would be 2.0 percent larger (i.e., \$51,000).

Members who were awarded an Expeditionary medal and purchased IMSC will not see a pension benefit increase; see bullet 2 below for how they'll be impacted.

2. **Return of Contributions:** Impacted members who already purchased IMSC will have their past payment(s) reimbursed by DRS.

This bill impacts all employers and Plan 2 members through increased contribution rates. With the exception of WSPRS members¹, this bill will not affect member contribution rates in Plan 1 since they are fixed in statute. Additionally, this bill will not affect member contribution rates in Plans 3 since they do not contribute to their employer-provided defined benefit.

There could be a limited number of impacted members currently in PERS 1, TRS 1, and LEOFF 1 that may receive increased benefits. Any increase in costs to these plans would be funded according to the plan's funding policy.

¹WSPRS 1 members have the same contribution rate as Plan 2 members.

WHY THIS BILL HAS A COST AND WHO PAYS FOR IT

Why This Bill Has a Cost

This bill allows members to receive fully subsidized IMSC for military service not covered under current law. As a result, an eligible member who applies for, and receives, IMSC will have a larger benefit upon retirement.

In addition, eligible members who already purchased IMSC will have their past payment(s) reimbursed by DRS. Any reimbursement of past payments would decrease assets of the plan which ultimately results in a cost.

Who Will Pay for These Costs?

PERS, TRS, SERS Plans 2/3 and PSERS Plan 2

Where applicable, the costs that result from this bill will be divided between members and employers according to standard funding methods that vary by plan:

- ❖ Plan 1: 100 percent employer.
- ❖ Plan 2: 50 percent member and 50 percent employer.
- ❖ Plan 3: 100 percent employer.

LEOFF 2

Any costs that arise from this bill will be divided according to the standard funding method for LEOFF Plan 2: 50 percent member, 30 percent employer, and 20 percent state.

WSPRS Plans 1/2

This bill constitutes a benefit improvement. As a result, any unfunded costs that arise from this bill will be divided according to the standard funding method of 50 percent member and 50 percent employer. The statutory maximum member contribution rate will correspondingly increase as well. The current maximum member rate is 8.61 percent. A supplemental rate, due to this bill, would increase the maximum by 0.13 percent.

Plan 1 (PERS, TRS, LEOFF)

PERS, SERS, and PSERS employers will realize any impacts on the PERS 1 Unfunded Actuarial Accrued Liability (UAAL) payments, whereas TRS employers will realize any impacts on the TRS 1 UAAL payments. We expect no impact to contribution rates in LEOFF 1 given the small number of active members and the current funded status in LEOFF 1.

HOW WE VALUED THESE COSTS

We modeled the current law cost of the retirement systems using our most recent actuarial valuation report ([June 30, 2020, Actuarial Valuation Report](#)) and assumptions and methods found on our [Projections](#) webpage. We also reflected the [economic assumptions](#) adopted by the Pension Funding Council (and the LEOFF 2 Board) during the 2021 Interim. This set of assumptions, methods, and data form our new “base model”.

To analyze the impact of this bill, we then adjusted the following assumptions and methods used in the base model.

Special Data Needed

We relied on data from DRS and the Department of Defense (DoD) to help inform the assumptions we selected. The DRS data was used to identify the number of Washington State retirement system members that are annually awarded fully subsidized IMSC for Campaign medals. While the DoD data was used to compare the number of Expeditionary medals awarded relative to Campaign medals at the national level.

We reviewed this historical data and found it reasonable for the purposes of this bill, but we did not audit the data. We assumed the data was accurate and complete. Please see **Appendix A** for more details.

Assumptions We Made

Separate assumptions were made to value the service credit expected to be earned in the future as well as service credit earned in the past. These two sets of costs (for future and historical service credit) were combined to form the overall expected cost of this bill.

Assumptions for Future Service Credit

We set a “load” to value our expectations for IMSC, via Expeditionary medals, to be earned in the future. The load represents a percentage increase that is intended to capture the impact of granting fully subsidized IMSC that is not captured under current law. In order to model the increase in expected costs from this bill, we applied a load to the active retirement benefits within our valuation software; we think this is appropriate given that approximately 90 percent of our active member plan obligations are attributable to retirement.

To begin setting this load for future service credit, we reviewed the data provided by DRS on historical fully subsidized IMSC granted to eligible members who earned a Campaign medal over a ten-year period (2010-2019). We believe it's reasonable to expect these average levels of IMSC granted in the past to continue in the future. For this reason, we relied on this experience to help develop our load assumption for Expeditionary Medals.

The following bullet points outline the calculation of our method for developing a best estimate load, followed by a table with by-plan data and the results of those calculations.

1. Annual Percent of Population Receiving Fully Subsidized IMSC (a / b).
 - a. Average Number of Members who Received IMSC Annually.
 - b. Average Number of Active Members in the Plan.
2. Adjustment for Estimated Average Future Years of Service.
3. Percent of Current Actives Expected to Receive IMSC over the Career (Step 1 x Step 2).
4. Average IMSC Granted Per Eligible Member.
5. Average Expected YOS at Retirement.
6. Preliminary Assumed Load (Step 3 x Step 4 / Step 5).
7. Adjustment for Expected Frequency of Expeditionary vs. Campaign medals.
8. Final Assumed Load (Step 6 x Step 7).

Calculation of Best Estimate Load: Future IMSC (<i>Expeditionary Medals</i>)					
Observed DRS Data from 2010-2019	PERS 2/3	PSERS	LEOFF 2	WSPRS 1	WSPRS 2
1) Annual Percent of Population Impacted (a / b)	0.0%	0.0%	0.2%	0.9%	0.2%
a. Average Impacted Member Count*	34	2	32	6	1
b. Average Count of Actives	150,743	5,243	17,235	591	453
2) Adjustment for Estimated Future Service (In Years)**	5	8	8	2	13
3) Percent Expected to Receive IMSC (1 x 2)	0.1%	0.3%	1.5%	1.9%	2.3%
4) Average IMSC Granted	1.0	0.6	0.8	0.8	0.8
5) Average Expected YOS at Retirement	23	19	28	28	25
6) Preliminary Assumed Load (3 x 4 / 5)	0.0050%	0.0103%	0.0427%	0.0513%	0.0792%
7) Adjustment for Expected Frequency***	-25%	-25%	-25%	-25%	-25%
8) Final Assumed Load (6 x 7)	0.0038%	0.0077%	0.0320%	0.0385%	0.0594%

*DRS members given fully subsidized IMSC for Campaign medals.

**See Adjustment for Estimated Future Service, below, for details.

***See Adjustment for Expected Frequency, below, for details.

Two adjustments were made to the load assumption:

1. **Adjustment for Estimated Future Service:** The Annual Percent of Population Impacted only captures the number of members expected to be awarded IMSC, via Campaign medals, in the next year. Given this, an adjustment was made reflecting the average number of years we expect the current active population to continue earning IMSC in the future, but limited to age 50.
 - a. For this analysis, we selected age 50 as the cut off because as members approach retirement, we think it's unlikely that they will interrupt their careers to temporarily join the military. Given that the youngest retirement-eligible age is 50 for LEOFF 2, we decided that could be an appropriate upper end for all systems when estimating the average number of future years the current active

population would continue to accrue IMSC. This assumption is supported by the following linked study by the [PEW Research Center](#) which indicates that only about one-in-ten active military are older than age 40.

2. **Adjustment for Expected Frequency:** We expect Expeditionary medals will be awarded at a pace approximately 25 percent lower than Campaign medals. This downward adjustment was set based on DoD data summarized in **Appendix A** which shows an Expeditionary to Campaign medal ratio of 0.75 over approximately the last 20 years.

Assumptions for Historical Service Credit

Members who were awarded an Expeditionary medal in the past are also impacted under this bill. These members will receive either a return of contributions by virtue of paying for partially subsidized IMSC or an increase in future pension benefits. The assumptions within this section focus on the costs of the population who will have an increase in future pension benefits (since so few partially subsidized members exist within the DRS data). These members were previously eligible to purchase IMSC; however, they may have elected to not do so and consequently we do not have any data on them.

We used the following methods to estimate their cost under this bill:

- ❖ We began by estimating the value of the fully subsidized IMSC for Campaign medals over this period.
 - We calculated a liability per YOS by taking the total active Present Value of Future Benefits (PVFB) for each plan and dividing by the expected YOS at retirement for future retirees (i.e., the same as number 5 in the Calculation of Best Estimate Load table above). This amount was then multiplied by the fully subsidized IMSC granted for the observed time period of 2010 through 2019. Our understanding is that Expeditionary medals have primarily been granted since 2001, so we doubled this cost for most systems (except PSERS, given its plan maturity).
- ❖ Similar to the **Assumptions for Future Service Credit** section, we relied on data for Campaign medals but applied a 25 percent downward adjustment to reflect Expeditionary medals being awarded at a slower rate.
- ❖ Based on this methodology, we estimate the following fully accrued costs are attributable to historical IMSC for Expeditionary medals.

Cost Attributable to Historical Service			
Dollars in Millions			
PERS 2/3	PSERS	LEOFF 2	WSPRS
\$5.1	\$0.1	\$8.7	\$2.5

While this estimate for historical service costs is being applied based upon the average active member, we recognize that some recipients may already be retired.

That said, they won't receive retroactive payments back to the date of their retirement, so we believe this approach is reasonable.

Other Assumptions

Our analysis does not include any contributions for fully subsidized IMSC that would be made by impacted employers. These payments would reduce the overall cost to the system (at the expense of the contributing employer), but we do not believe it is material to the overall budget impact of this bill.

We anticipate the impact to duty-related death benefits under this bill is not material to this pricing exercise, and as a result we have not captured any associated cost in this fiscal note. Similarly, we do not expect refund of past payments for eligible members who purchased partially subsidized IMSC will materially impact this fiscal note.

We assume the impact to all plans in TRS and SERS, as well as PERS 1 and LEOFF 1, are immaterial under this bill. Few members of these plans, relative to active membership, have qualified for IMSC in the past, so we assume that will continue under this bill.

How We Applied These Assumptions

The fiscal impact of this bill represents the change in projected contributions. To estimate the fiscal impact of this bill, we compared projected pension contributions under current law to the projected contributions we expect under this bill. The projected pension contributions reflect contributions from the current members as well as future hires. For more detail, please see **Appendix B**.

ACTUARIAL RESULTS

This bill is not expected to materially impact the actuarial funding of all plans in TRS and SERS, PERS 1, and LEOFF 1. We show the impacts to the remaining plans below.

How the Liabilities Changed

This bill will impact the actuarial funding of the affected plans by increasing the PVFB. The impact of the increasing liabilities payable for current members is shown in the following table.

Impact on Pension Liability (As of 6/30/2019)			
(Dollars in Millions)	Current*	Increase	Total
Actuarial Present Value of Projected Benefits (The Value of the Total Commitment to All Current Members)			
PERS 2/3	\$55,767	\$6.2	\$55,773
PSERS 2	1,569	0.2	1,569
LEOFF 2	17,111	12.2	17,123
WSPRS 1/2	\$1,698	\$2.8	\$1,701
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 2/3	\$4,738	\$6.0	\$4,744
PSERS 2	59	0.1	59
LEOFF 2	(659)	11.0	(649)
WSPRS 1/2	\$154	\$2.7	\$156

Note: Totals may not agree due to rounding.

*Current liabilities measured as of June 30, 2019, and reflect updated economic assumptions adopted by the Pension Funding Council and LEOFF 2 Board.

How the Assets Changed

This bill would result in a change in assets, but the impact was not captured in this analysis. Assets will decrease as a result of any refunds of past payments for partially subsidized IMSC; at the same time, the assets will increase due to employer payments for future fully subsidized IMSC. Please see the **Other Assumptions** section above for details.

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 Contribution Rates Changed

During Fiscal Year 2023, a supplemental contribution rate is collected for LEOFF 2 and WSPRS 1/2 to fund the cost of this bill. Additionally, this bill is a benefit improvement so an increase in WSPRS member maximum contribution rate would also occur.

The increase in the required actuarial contribution rate does not round up to the minimum supplemental contribution rate of 0.01 percent for PERS 2/3 and PSERS 2. Therefore, this bill will not affect contribution rates in the current biennium for these plans.

We will use the unrounded rate increase shown in the following table to measure the budget changes in future biennia for all impacted plans.

Impact on Contribution Rates				
System/Plan	PERS	PSERS	LEOFF	WSPRS
Current Members				
Employee (Plan 2 or WSPRS)	0.0036%	0.0017%	0.0248%	0.1284%
Employer	0.0036%	0.0017%	0.0149%	0.1284%
State			0.0149%	
New Entrants*				
Employee (Plan 2 or WSPRS)	0.0002%	0.0005%	0.0025%	0.0060%
Employer	0.0002%	0.0005%	0.0015%	0.0060%
State			0.0010%	

*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

Budget Impacts					
(Dollars in Millions)	PERS	PSERS	LEOFF	WSPRS	Total
2022-2023					
General Fund	\$0.0	\$0.0	\$0.2	\$0.0	\$0.2
Non-General Fund	0.0	0.0	0.0	0.1	0.1
Total State	\$0.0	\$0.0	\$0.2	\$0.1	\$0.3
Local Government	0.0	0.0	0.2	0.0	0.2
Total Employer	\$0.0	\$0.0	\$0.4	\$0.1	\$0.6
Total Employee	\$0.0	\$0.0	\$0.4	\$0.1	\$0.6
2023-2025					
General Fund	\$0.1	\$0.0	\$0.5	\$0.0	\$0.6
Non-General Fund	0.2	0.0	0.0	0.3	0.5
Total State	\$0.4	\$0.0	\$0.5	\$0.3	\$1.1
Local Government	0.4	0.0	0.7	0.0	1.0
Total Employer	\$0.7	\$0.0	\$1.1	\$0.3	\$2.1
Total Employee	\$0.5	\$0.0	\$1.1	\$0.3	\$2.0
2022-2047					
General Fund	\$1.1	\$0.1	\$4.8	\$0.2	\$6.3
Non-General Fund	1.7	0.0	0.0	2.3	4.0
Total State	\$2.9	\$0.2	\$4.8	\$2.5	\$10.3
Local Government	2.9	0.1	7.1	0.0	10.0
Total Employer	\$5.7	\$0.3	\$11.8	\$2.5	\$20.3
Total Employee	\$4.3	\$0.3	\$11.8	\$2.5	\$18.9

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 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.

The following table displays our latest risk measurements as of June 30, 2020. The figures in this table were not reproduced for this bill. For more information, please see our [Risk Assessment](#), [Commentary on Risk](#), and [Glossary](#) webpages. Additional information on the assumptions used to produce the risk measures can be found in the [Risk Assessment Assumptions Study](#).

Select Measures of Pension Risk as of June 30, 2020		
	FY 2021-39	FY 2040-69
Affordability Measures		
Chance of Pensions Double their Current Share of GF-S*	<1%	1%
Chance of Pensions Half their Current Share of GF-S*	65%	52%
Solvency Measures		
Chance of PERS 1, TRS 1 in Pay-Go**	1%	7%
Chance of Open Plan in Pay-Go**	<1%	1%
Chance of PERS 1, TRS 1 Total Funded Status Below 60%	7%	7%
Chance of Open Plans Total Funded Status Below 60%	17%	27%

*Pensions approximately 5.9% of current GF-S budget; does not include higher education.

**When today's value of annual pay-go cost exceeds \$50 million.

We would not expect a significant increase to current total plan membership service and consequently the overall risk measures as a result of this bill. However, an unexpected and significant number of members could earn fully subsidized IMSC if (1) a large-scale and lengthy future conflict were to occur, or (2) if more members earned Expeditionary medals in the past than anticipated.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

The best estimate results can vary under a different set of assumptions. The actual amount of fully subsidized IMSC added as a result of this bill could be higher (or lower) than we assume. In this section, we summarize some of the reasons why the costs could be more (or less) than what is presented in this fiscal note.

- ❖ **Future Service:** The actual amount of fully subsidized IMSC granted in the future is heavily dependent on the levels of troop engagement in, and medals awarded for, unknown conflicts down the road. In general, we assumed future annual IMSC will be granted at a frequency similar to what was observed in the DRS data between 2010 and 2019. Actual levels of service granted for future IMSC through Expeditionary medals may be higher (or lower) than our best estimate assumptions and will increase (or decrease) the cost of this bill.

For context, we estimate future service is approximately one-third of the cost of this bill.

- ❖ **Historical Service:** We did not have data on members who earned an Expeditionary medal but elected to not purchase partially subsidized IMSC between 2001 and 2019. For this reason, we relied on experience for Campaign medals to help inform our assumptions. Actual levels of service granted for past IMSC through Expeditionary medals may be higher (or lower) than our best estimate assumptions and will increase (or decrease) the cost of this bill.

For context, we estimate historical service is approximately two-thirds of the cost of this bill.

- ❖ **Ratio of Expeditionary to Campaign Medals:** We relied on Campaign medal data to help set our assumptions since we expect Expeditionary medals will occur at similar, but 25 percent lower, frequency. This expectation is based on total DoD data over the period from 2001 through 2019. We feel this approach is reasonable but will note that this relationship displayed some volatility over the observed time period. For example, 2006-2014 data displayed four Expeditionary medals for every ten Campaign medals; however, 2015-2019 data displayed fourteen Expeditionary medals for every ten Campaign medals. More (or less) Expeditionary medals relative to Campaign medals would increase (or decrease) the cost of this bill.

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 2022 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.



Kyle Stineman, ASA, MAAA
Actuary

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APPENDIX A – SPECIAL DATA NEEDED

Data from DRS and DoD was used to help inform the assumptions we selected for this pricing exercise. We summarized the information we relied on within this section.

Data from DRS

We reviewed recent historical data from DRS on fully subsidized IMSC granted for Campaign medals. The following table provides an annual summary of the data provided by DRS, as well as the average over the 2010-2019 time period.

IMSC Granted for Campaign Medals											
PERS 2/3	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
Count	37	37	23	74	49	46	20	25	19	14	34
Avg Service	1.0	1.0	1.2	1.0	1.1	0.7	0.9	0.9	1.2	0.9	1.0
PSERS	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
Count	1	2	1	8	0	0	4	2	0	3	2
Avg Service	0.8	0.6	1.5	0.5	N/A	N/A	0.3	0.9	N/A	0.9	0.6
LEOFF 2	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
Count	51	54	22	36	42	47	28	19	7	14	32
Avg Service	0.9	0.7	1.0	0.8	0.8	0.8	0.7	0.8	0.9	0.8	0.8
WSPRS 1	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
Count	5	4	4	10	9	4	4	3	4	9	6
Avg Service	0.7	0.7	0.8	1.0	0.7	0.5	1.1	1.0	0.5	0.6	0.8
WSPRS 2	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
Count	1	3	0	0	2	0	1	0	0	1	1
Avg Service	0.1	0.4	N/A	N/A	1.1	N/A	1.0	N/A	N/A	1.7	0.8

We reviewed the data for TRS and SERS Plans 2/3 but did not include it in the above table. On average, three members (or less) received IMSC annually, which is less than 0.005 percent of their respective active populations.

Data for PERS 1, TRS 1, and LEOFF 1 was also excluded from the above table. These plans closed to new hires in 1977, so the remaining active members would have a least 24 YOS by 2001. Given the accrued service of these plan members, we do not expect a significant number of members would temporarily leave their careers beyond 2001 and earn IMSC since they are at, or near, eligibility for retirement.

This data was received from DRS on July 14, 2020, and was initially used for the 2020 Interim [IMSC Study](#) that was submitted to the Select Committee on Pension Policy as part of [Substitute House Bill 2544](#). We believe this data remains reasonable for purposes of pricing this bill. If this bill becomes a law, then we may request new data to set assumptions for our actuarial valuation.

Data from DoD

The DoD data in the following table was used to compare the number of Expeditionary medals awarded relative to Campaign medals at the national level. This information was received late 2020 and compiled as part of the *IMSC Study*.

Actuary's Fiscal Note for HB 1804/SB 5726

Department of Defense			
	Expeditionary Medals	Campaign Medals	Ratio
2001	4,275	1,276	3.35
2002	3,386	1,306	2.59
2003	7,187	4,463	1.61
2004	19,683	7,001	2.81
2005	31,256	15,652	2.00
2006	9,328	17,255	0.54
2007	7,285	17,002	0.43
2008	8,145	42,847	0.19
2009	9,390	36,791	0.26
2010	10,580	46,362	0.23
2011	16,091	46,305	0.35
2012	16,746	43,674	0.38
2013	19,635	40,020	0.49
2014	21,745	31,825	0.68
2015	36,737	24,108	1.52
2016	27,801	24,704	1.13
2017	48,596	22,478	2.16
2018	31,886	27,797	1.15
2019	23,899	18,793	1.27
Total	353,651	469,659	0.75

APPENDIX B – 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 pension contributions reflect contributions from the current members as well as future hires.

To determine the projected contributions under current law, we relied on our base model described in the **How We Valued These Costs** section. For current members, contribution rates from the base model are multiplied by future payroll. For future hires, contribution rates under the Entry Age Normal Cost method are multiplied by future new entrant payroll.

To determine the projected costs under this bill, we modified the base model described above to reflect the provisions of the bill and the assumptions noted in the body of this fiscal note. We then multiplied the respective new contribution rates reflecting these changes by future payroll.