

Multiple Agency Fiscal Note Summary

Bill Number: 5454 SB	Title: RN PTSD/industrial insurance
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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
Board of Industrial Insurance Appeals	Fiscal note not available											
Department of Labor and Industries	Fiscal note not available											
Actuarial Fiscal Note - State Actuary	Non-zero but indeterminate cost and/or savings. Please see discussion.											
Total \$	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0

Estimated Capital Budget Expenditures

Agency Name	2023-25			2025-27			2027-29		
	FTEs	Bonds	Total	FTEs	Bonds	Total	FTEs	Bonds	Total
Board of Industrial Insurance Appeals	Fiscal note not available								
Department of Labor and Industries	Fiscal note not available								
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

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Individual State Agency Fiscal Note

Bill Number: 5454 SB	Title: RN PTSD/industrial insurance	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:

Non-zero but indeterminate cost and/or savings. Please see discussion.

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: Susan Jones	Phone: 360-786-7404	Date: 01/24/2023
Agency Preparation: Melinda Aslakson	Phone: 360-786-6161	Date: 02/17/2023
Agency Approval: Michael Harbour	Phone: 360-786-6151	Date: 02/17/2023
OFM Review: Marcus Ehrlander	Phone: (360) 489-4327	Date: 02/18/2023

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

Non-zero but indeterminate cost and/or savings. Please see discussion.

III. B - Expenditures by Object Or Purpose

Non-zero but indeterminate cost and/or savings. Please see discussion.

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: Creates rebuttable presumption that Post-Traumatic Stress Disorder (PTSD) is an occupational disease for Registered Nurses (RNs).

COST SUMMARY

- ❖ This bill has an **indeterminate** cost to PERS and PSERS due to a lack of data to set assumptions for the following:
 - The expected impact of the PTSD presumption on duty-related death and catastrophic disability benefits for RNs, and the number of RNs in each of these retirement systems.
 - The expected impact of the presumption window, which begins up to 60 months prior to the effective date of the bill. This provision includes the pandemic and may lead to significant additional costs.
- ❖ There is no expected cost to TRS and SERS under this bill due to the assumed limited number of RNs in those retirement systems.

HIGHLIGHTS OF ACTUARIAL ANALYSIS

- ❖ This bill provides RNs, in all retirement systems, expanded eligibility to duty-related death benefits. RNs in PSERS may also receive enhanced disability benefits if experiencing a catastrophic disability covered by the PTSD presumption; catastrophic disability benefits are not available in PERS, TRS, and SERS.
- ❖ Applicable data was not available to set a best estimate assumption for the costs of this bill. Instead, we provide example impacts that rely on our current PTSD assumptions for LEOFF 2.
 - For this illustration, we estimate PSERS contribution rates would increase by 0.01 percent (1 basis point) to fund the cost of future incidences of PTSD. We caution that this example does not include the potential impact of past incidences of PTSD during the 60-month window, which could materially increase the cost of the bill.
 - RNs in PERS make up a smaller portion of the plan membership relative to PSERS, and PERS members are not eligible for catastrophic disability benefits. As a result, we anticipate PERS contributions rate impact would be lower.
 - The illustration in this AFN can vary under a different set of assumptions. For example, if a larger/smaller portion of the PSERS population work as RNs or they incur PTSD at a higher/lower rate than LEOFF 2 members, then the cost of this bill would increase/decrease. The costs could also vary as a result of differing criteria in the bill used to assess PTSD claims for RNs.
- ❖ We may submit a revised AFN if we receive additional data on the impact of the PTSD presumption and the number of RNs by retirement plan.

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 creates a rebuttable presumption for the purpose of workers compensation benefits that PTSD is an occupational disease for RNs. The presumption extends for up to 60 months following the last day of employment. However, the presumption does not apply if the disorder is directly attributed to disciplinary action, work evaluation, job transfer, layoff, demotion, termination, or similar action taken in good faith by an employer. The presumption may be rebutted by clear and convincing evidence.

Effective Date: January 1, 2024.

In this summary, we only include changes pertinent to our Actuarial Fiscal Note (AFN). See the legislative bill report for a complete summary of the bill.

What Is the Current Situation?

Pension benefits are administered by the Department of Retirement Systems (DRS), and workers compensation benefits are administered by the Department of Labor and Industries (L&I). RNs who work for a public employer will typically be covered by and could receive benefits from both DRS and L&I.

RNs may be employed by a PERS employer such as a state or local health department, a TRS or SERS employer such as a school district, or a PSERS employer such as a correctional facility or state institution. PERS, TRS, SERS, and PSERS provide death and disability benefits as follows.

- ❖ Death Benefits:
 - Survivors of members experiencing a non-duty death receive an actuarially reduced retirement benefit.
 - Survivors of members experiencing a duty-related death are provided a \$150,000 lump-sum payment and an unreduced retirement benefit.
- ❖ Disability Benefits:
 - Members experiencing a disability receive an actuarially reduced retirement benefit.
 - Catastrophic Disability: PSERS provides a larger disability benefit (relative to PERS, TRS, and SERS) for a duty-related disability that is considered permanent. A PSERS member who

is totally disabled in the line of duty is entitled to receive a retirement allowance equal to 70 percent of the member's final average salary, subject to certain offsets and caps.

DRS may rely on a L&I determination that a death or disability is duty-related in establishing eligibility for certain death or disability benefits from the pension systems. A statutory presumption that a condition is an occupational disease makes it more likely that a resulting death or disability would be considered duty-related for purposes of both workers compensation and retirement system death and disability benefits.

Currently, PTSD is not presumed an occupational disease for RNs.

Who Is Impacted and How?

We expect this bill could improve retirement benefits for any RNs from all DRS retirement systems that are currently active or that separated in the last 60 months. Specifically, the bill provides greater access to death and disability benefits for RNs experiencing work-related PTSD.

It is our understanding that RNs are primarily covered by employers in PERS and PSERS. We expect a small number of RNs are members of TRS and SERS, and therefore anticipate there will be no material cost impacts for these two retirement systems.

Death Benefits

- ❖ Survivors of RNs that experience a death caused by duty-related PTSD will receive a lump-sum of \$150,000 in addition to the unreduced survivor pension benefit.

Disability Benefits

- ❖ RNs in PERS, TRS, and SERS experiencing disabilities related to PTSD may receive a disability benefit. However, the disability benefit is an actuarially reduced retirement and does not change due to PTSD.
 - Similarly, PSERS members experiencing non-catastrophic disabilities also receive an actuarially reduced benefit.
- ❖ RNs in PSERS experiencing a catastrophic disability related to PTSD will receive an enhanced benefit. The example below compares the annual disability benefit to the expected catastrophic disability benefit for a PSERS RN aged 40, with 10 Years Of Service (YOS), and an average final salary of \$64,000.
 - Disability Benefit: $2\% \times 10 \text{ YOS} \times \$64,000 \times 0.195$ (Early Retirement Factor) = \$2,500

- Catastrophic Benefit: $\$64,000 \times 0.40$ (Assumed Minimum Benefit¹) = \$25,600

The bill also provides the PTSD presumption up to 60 months after separating from employment. As such, RNs separated from active employment may claim duty-related benefits for PTSD from prior to the effective date of the bill.

This bill could impact all members and employers of the retirement systems that cover RNs through increased contribution rates.

HOW THIS BILL IMPACTS RETIREMENT SYSTEM COSTS

Why This Bill Has an Indeterminate Cost

This bill adds PTSD to the list of occupational diseases for RNs, which expands eligibility for death and disability benefits from the retirement systems. Providing additional duty-related death benefits for all plans and catastrophic disability benefits in PSERS for RNs will increase contribution rates.

- ❖ We do not expect this bill will increase the total number of annual deaths but do expect a shift in the death benefits paid from non-duty to duty related as a result of this PTSD presumption.
- ❖ Additionally, we expect this bill will increase the total number of annual disabilities (and more notably, catastrophic disabilities in PSERS) since this bill expands the coverage of occupational diseases to include PTSD as a new presumption.

We are unable to determine a best estimate cost for this bill because limited data is available to set assumptions on (1) the number of RNs in each retirement system, and (2) the increased number of duty-related deaths and catastrophic disabilities. We reviewed the L&I fiscal note and determined their assumptions could not be applied for our purposes of measuring the impact of this bill on the state retirement systems. The L&I assumptions were developed for all RNs in Washington State (i.e., public and private sector), and include short duration claims which are not applicable to our pricing exercise.

Furthermore, we were not able to quantify the impact of PTSD incidences that occurred prior to the effective date of this bill. This bill creates up to a five-year window that will allow members to apply for PTSD benefits under this new presumption. We do not know the extent of PTSD incidences that may result in an enhanced pension benefit for RNs. This period of time includes the height of the pandemic and may result in significantly more PTSD claims than we might anticipate on an ongoing basis in the future.

¹Members receive 70 percent of their final average salary catastrophic disability, reduced by benefits from L&I and Social Security. We assume the net benefit is 40 percent after reductions; please see our actuarial fiscal note on [House Bill \(HB\) 1669](#) from the 2022 Legislative Session for details.

We may submit a revised AFN (potentially including best estimate costs) if additional data becomes available.

Who Will Pay for These Indeterminate Costs?

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

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

Since the cost of this bill is indeterminate, no supplemental contribution rate will be charged. The actual costs that emerge will be incorporated into subsequent actuarial valuations and could increase future contribution rates. We will continue to monitor actual PTSD experience for RNs and develop/update our assumptions accordingly.

HYPOTHETICAL EXAMPLE OF COSTS UNDER THIS BILL

For illustrative purposes only, we estimated the contribution rate impact to PSERS by relying on our PTSD assumptions in the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 2. These assumptions were developed for [SSB 6214](#) in the 2018 Legislative Session.

Please note that RNs and LEOFF members are distinctly different populations with different retirement plan provisions, so actual experience may differ. Further, actual administration of the PTSD benefits may differ between RNs and LEOFF 2 members based on the bill language.

To perform this analysis, we applied the following assumptions:

- ❖ Assumed Proportion of PSERS Employed as RNs:
 - [Substitute House Bill 1558](#) from the 2018 Legislative Session expanded PSERS membership to include eligible security staff and nurses employed by certain state institutions and local corrections departments. At that time, approximately 4,000 members were eligible to join PSERS adding to the current active membership of 5,200.
 - We do not have data on the proportion of those 4,000 members that were RNs. For purposes of this illustration, we assumed 25 percent of the total PSERS population are RNs; the actual proportion could be higher or lower.
- ❖ LEOFF 2 Duty-Related Death assumption:
 - As part of SSB 6214, we applied a 0.013 percent increase to our LEOFF 2 duty-related death rate for PTSD. This corresponded to roughly two additional duty-related deaths per year.
 - For purposes of this illustration, we applied this same duty-related death rate in PSERS but reduced it for the assumed

proportion of members employed as RNs, resulting in about 0.3 additional duty-related deaths per year.

- To estimate the cost for this illustration, we correspondingly increased the current law PSERS duty-related death liabilities from our valuation and calculated the contribution rate change. Note that the underlying duty-related death rate in PSERS is 0.0015 percent.
- ❖ LEOFF 2 Catastrophic Disability assumption:
 - [HB 1669](#) from the 2022 Legislative Session added catastrophic disability benefits to PSERS. The assumptions we selected for that pricing resulted in approximately three catastrophic disabilities per year with a contribution rate impact of 0.10 percent.
 - As part of SSB 6214, we anticipated roughly 0.5 additional catastrophic disabilities per year in LEOFF 2. For purposes of this illustration, we reduced that figure by (1) the ratio of the active counts in PSERS to LEOFF 2, and (2) the assumed proportion of members employed as RNs, resulting in an estimated 0.1 additional catastrophic disabilities per year in PSERS.
 - To estimate the PSERS contribution rate impact for this illustration, we multiplied the contribution impact we observed in HB 1669 by the ratio of these catastrophic disability counts.

Based on these assumptions and methods, we estimate the member and employer PSERS contribution rates would increase by 0.01 percent (for both the duty-related death and catastrophic disability benefits combined). Based on these assumptions, a majority of the cost is attributable to the duty-death benefits. While catastrophic disability benefits are larger than a member may otherwise receive, the shift to more expected disabilities under this bill is partially offset by fewer standard retirements.

This hypothetical example is sensitive to the proportion of RNs, as well as the PTSD duty-related death and catastrophic disability assumptions. For example, doubling the proportion of RNs on its own would result in roughly a 0.02 percent increase in PSERS contribution rates. Similarly, doubling PTSD duty-related death and catastrophic disability assumptions (without a change to the proportion of RNs) would do the same. Please note that this illustration does not capture any potential impact from PTSD that occurred during the height of the pandemic, which could materially increase the cost of this bill.

We did not provide example impacts for PERS because we expect RNs are a small portion of the overall membership. Additionally, PERS does not offer catastrophic disability benefits. Therefore, we anticipate PERS contribution rate impacts will be lower PSERS.

Otherwise, we relied on data, assumptions, and methods consistent with our most recent [June 30, 2021, Actuarial Valuation Report](#).

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, 2021. 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.

Select Measures of Pension Risk (As of 6/30/2021)		
	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.*

In terms of risk, we anticipate this bill would worsen the affordability and solvency risk measures because it expands eligibility for duty-related death and catastrophic disability benefits. However, we expect the impact to the risk measures across all retirement systems may be limited.

ACTUARY'S CERTIFICATION

The undersigned certifies that:

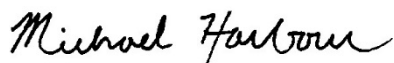
1. The actuarial assumptions, methods, and data used are reasonable for the purposes of this pricing exercise. The use of another set of assumptions, methods, and data may also be reasonable and might produce different results.
2. The risk analysis summarized in this AFN involves the interpretation of 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.



Michael T. Harbour, ASA, MAAA
Actuary

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