September 23, 2015

Supplemental Rate Adoption

FINAL PROPOSAL

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ISSUE STATEMENT

The Board must decide whether it is necessary to increase contribution rates due to the passage of Substitute House Bill 1194, providing surviving spouses of members of the Law Enforcement Officers' and Fire Fighters' (LEOFF) Plan 2 Retirement System and Washington State Patrol Retirement System (WSPRS) monthly survivor benefits regardless of remarriage.

OVERVIEW

Based on the preliminary actuarial data as of May 18, 2015, there were 16,773 active LEOFF Plan 2 members. Adopting supplemental contribution rates impacts all active LEOFF Plan 2 members, employers, and the state.

One of the Board's strategic goals is to ensure the financial integrity of the plan. In order to maintain that goal, it may be necessary for the Board to pay for benefit improvements. Not all benefit improvements will have costs necessitating an increase in contribution rates, but if they do, the Board has the option of adopting a supplemental rate increase. Changes are usually effective September 1 following the effective date of the legislation.

BACKGROUND & POLICY ISSUES

In the 2014 interim, the Board decided to leave contribution rates at their current levels for the upcoming biennium. However with the added cost of this new benefit, there is potentially a larger gap between actual rates and what the normal cost of the plan is projected to be.

The vast majority of the costs of this bill are related to the assumptions of remarriage among current widows. OSA's best estimate was that 40% of widows would remarry within four years. It may be the Board's decision to let experience play out before assuming changes to the normal cost of the plan.

The Board could also decide to adopt the full entry age normal cost (EANC) of the plan now. The majority of the rate increases were tied to mortality improvements among the population. In the 2014 biennium, the Board elected to leave rates at their current levels through the 2015-2017 biennium, then adopt the full normal cost rates for the 2017-2019 biennium.

FISCAL NOTE CHANGES

The Office of the State Actuary (OSA) provided a revised fiscal note on August 25, 2015 indicating the cost of this benefit enhancement would require a contribution rate increase of five basis points for the member (0.05%), three basis points for the employer (0.03%), and two basis point for the state (0.02%). See Appendix A.

This fiscal note differs from the prior version in two ways. First, the Department of Retirement Systems (DRS) determined the Cost-of Living Adjustment (COLA) applied to these benefits is not the same as those applied to retirement benefits and will be based upon the percent increase in the State Average Wage (SAW) consistent with current L&I administrative practices. The SAW is the Washington State average annual wage as determined by the Employment Security Department (ESD) under RCW 50.04.355. Second, OSA received updated data from the Department of Labor & Industries (L&I) regarding current survivors that could be eligible for this benefit in the future.[1]

Helping to maintain the goal of actuarial soundness in the plan, the Board had an outside independent actuary audit OSA's fiscal note. See Appendix B.

POLICY OPTIONS

Option 1: Do not adopt a supplemental rate

Under this option, the Board would recommend no increase in contribution rates. This would leave rates at:

Member	8.41%
Employer	5.05%
State	3.36%

Option 2: Adopt OSA's recommended supplemental rates

Under this option, the Board would recommend to adopt an increase in contribution rates of 0.05% for members, 0.03% for employers, and 0.02% for the state. Rates would increase to:

Member	8.46%
Employer	5.08%
State	3.38%

[1] Appendix A

Option 3: Adopt the full normal cost

Under the option, the Board would adopt the full normal cost of the plan as presented by OSA last interim, including the cost of the new benefit. This would increase rates to:

Member	8.90%
Employer	5.34%
State	3.56%

SUPPORTING INFORMATION

Appendix A: Revised fiscal note

Appendix B: Independent Actuarial audit of OSA revised fiscal note

Multiple Agency Fiscal Note Summary

Bill Number: 1194 S HB	Title: Death benefits/LEOFF, WSPRS

Estimated Cash Receipts

NONE

Estimated Expenditures

Agency Name	2015-17			2017-19			2019-21		
	FTEs	GF-State	Total	FTEs	GF-State	Total	FTEs	GF-State	Total
Department of Retirement Systems	.1	0	24,278	.0	0	0	.0	0	0
Department of Labor and Industries	.0	0	0	.0	0	0	.0	0	0
Actuarial Fiscal Note - State Actuary	.0	1,400,000	1,600,000	.0	1,500,000	1,700,000	.0	1,600,000	1,800,000
Total	**0.1**	**$1,400,000**	**$1,624,278**	**0.0**	**$1,500,000**	**$1,700,000**	**0.0**	**$1,600,000**	**$1,800,000**

Estimated Capital Budget Impact

NONE

Prepared by: Jane Sakson, OFM	Phone: 360-902-0549	Date Published: Revised 8/25/2015

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

** See local government fiscal note

FNPID: 42333

Individual State Agency Fiscal Note

Bill Number: 1194 S HB	Title: Death benefits/LEOFF, WSPRS	Agency: 124-Department of Retirement Systems

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

	FY 2016	FY 2017	2015-17	2017-19	2019-21
FTE Staff Years	0.2	0.0	0.1	0.0	0.0
Account					
Department of Retirement Systems Expense Account-State 600-1	24,278	0	24,278	0	0
Total $	24,278	0	24,278	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: 02/12/2015
Agency Preparation:	Dave Nelsen	Phone: 360-664-7304	Date: 02/17/2015
Agency Approval:	Marcie Frost	Phone: 360-664-7224	Date: 02/17/2015
OFM Review:	Jane Sakson	Phone: 360-902-0549	Date: 02/17/2015

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 that if a surviving spouse or domestic partner of a member of Plan 2 of the Law Enforcement Officers' and Fire Fighters' (LEOFF) Retirement System or of the Washington State Patrol Retirement System (WSPRS) receives death benefits from the Department of Labor and Industries (LNI) due to a duty-related death, and subsequently loses those benefits as a result of remarriage or new domestic partnership, that the Department of Retirement Systems (DRS) will administer an equivalent payment which will be funded out of the appropriate retirement trust fund.

In addition, this bill states that these equivalent LNI replacement payments will resume for surviving spouses or domestic partners whose LNI death benefits stopped prior to the effective date of the bill due to remarriage or new domestic partnership. The bill also declares that if the surviving spouse or domestic partner had received a lump sum payment from LNI, the monthly replacement payments from DRS will be actuarially reduced.

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

- There are currently eight known cases that would be eligible for this payment (six LEOFF, two WSPRS).
- There are currently 52 LEOFF accounts and six WSPRS accounts that are receiving benefits from DRS for duty-related death. It is assumed that the majority of these accounts are also receiving LNI death benefits and would possibly be affected by this legislation now or in the future.
- An estimated average of six duty-related deaths occur each year in the LEOFF 2 and WSPRS systems.
- Eligible surviving spouses and domestic partners would be required to contact DRS and request to receive payment of the amount equivalent to the LNI benefit that has been stopped due to their remarriage or new domestic partnership.
- DRS will coordinate with LNI to verify the amount of the benefit that they had been paying and the date on which that benefit was stopped.
- The LNI replacement benefit will be added to the DRS payment as an adjustment, and will be eligible for any pension-based increases (e.g. LEOFF 2 and WSPRS Cost-of-Living Adjustments).
- The LNI replacement benefit will assume the same tax characteristics as the death benefit that is already being paid by DRS.
- If the surviving spouse or domestic partner stopped receiving LNI death benefits prior to the effective date of the bill, the LNI replacement payment from DRS will be effective immediately upon the bill's effective date. The payments will not be made retroactively for periods of time prior to the effective date of the bill.
- If the surviving spouse or domestic partner received a lump sum payment from LNI, the monthly LNI replacement payments from DRS will be actuarially reduced to reflect the lump sum payment.

- If the remarriage or domestic partnership which resulted in the LNI benefit stoppage ends, the recipient is responsible to contact DRS to stop paying the additional replacement benefit when the LNI benefits resume.
- DRS would communicate with LNI annually on all affected accounts to determine whether the LNI benefit has been restarted, and take appropriate action to adjust the account.
- DRS will create a new adjustment code to add this benefit to the existing pension.

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 reviewing minimal updates to member communications and internal reference and training materials. RSs will develop and implement the necessary manual processes for supporting this legislation, and there will be increased review and processing time needed by lead retirement specialists in special processing units to make the adjustments on affected accounts.

Retirement Specialist 3 – 490 hours (salary/benefits) = $17,141

AUTOMATED SYSTEMS

The agency's automated systems will need to be modified to add a new benefit adjustment code. Business requirements will be developed and User Acceptance Testing will be needed.

Info Tech Specialist 4 - 30 hours (salary/benefits) = $1,387
Contracted programming – 50 hours @ $95 per hour = $4,750
DES* cost - 2 weeks @ $500 per week = $1,000

Total Estimated Automated Systems Costs = $7,137

*cost for mainframe computer processing time and resources at CTS/DES

ESTIMATED TOTAL COST TO IMPLEMENT THIS BILL: $24,278

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2016	FY 2017	2015-17	2017-19	2019-21
FTE Staff Years	0.2		0.1		
A-Salaries and Wages	13,199		13,199		
B-Employee Benefits	5,329		5,329		
C-Professional Service Contracts					
E-Goods and Other Services	5,750		5,750		
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:	$24,278	$0	$24,278	$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 2016	FY 2017	2015-17	2017-19	2019-21
Info Tech Specialist 4	71,496	0.0		0.0		
Retirement Specialist 3	51,864	0.2		0.1		
Total FTE's	123,360	0.2		0.1		0.0

Part IV: Capital Budget Impact

NONE

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.

New rules will be required.

Individual State Agency Fiscal Note

Bill Number: 1194 S HB	Title: Death benefits/LEOFF, WSPRS	Agency: 235-Department of Labor and Industries

Part I: Estimates

[X] **No Fiscal Impact**

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: 02/12/2015
Agency Preparation:	Jennifer C Smith	Phone: 360-902-4470	Date: 02/16/2015
Agency Approval:	Randi Warick	Phone: 360-902-4214	Date: 02/16/2015
OFM Review:	Devon Nichols	Phone: (360) 902-0582	Date: 02/18/2015

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.

See attached.

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.

None.

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.

None.

Part III: Expenditure Detail

Part IV: Capital Budget Impact

NONE

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.

None.

Part II: Explanation

This legislation allows for certain surviving spouses who are not eligible to receive industrial insurance payments due to remarriage to receive benefits through the Law Enforcement Officers' and Firefighters (LEOFF) retirement system or the State Patrol retirement system an amount equal to the benefit they would have received if they had not remarried.

II. A – Brief Description of What the Measure Does that Has Fiscal Impact

This fiscal note differs from the fiscal note for HB 1194 distributed on January 26, 2015. The previous legislation required the industrial insurance payment to continue to be paid to surviving spouses through Labor and Industries. The substitute bill requires the equivalent amount to be paid through the LEOFF or State Patrol retirement systems.

II. B – Cash Receipt Impact

II. C – Expenditures

This legislation has no fiscal impact on Labor and Industries. The amount paid to qualifying surviving spouses will not be paid with either the Accident or Medical Aid funds. Labor and Industries will no longer need to do programming to provide an indicator to track the surviving spouses.

Part IV: Capital Budget Impact

None.

Part V: New Rule Making Required

None.

Individual State Agency Fiscal Note

Revised

Bill Number: 1194 S HB	Title: Death benefits/LEOFF, WSPRS	Agency: AFN-Actuarial Fiscal Note - State A

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

		FY 2016	FY 2017	2015-17	2017-19	2019-21
Account						
All Other Funds-State	000-1	100,000	100,000	200,000	200,000	200,000
General Fund-State	001-1	600,000	800,000	1,400,000	1,500,000	1,600,000
	Total $	700,000	900,000	1,600,000	1,700,000	1,800,000

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: 02/12/2015
Agency Preparation:	Aaron Gutierrez	Phone: 360-786-6152	Date: 08/24/2015
Agency Approval:	Lisa Won	Phone: 360-786-6150	Date: 08/24/2015
OFM Review:	Jane Sakson	Phone: 360-902-0549	Date: 08/25/2015

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

NONE

Part IV: Capital Budget Impact

NONE

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: The substitute bill states that when certain death benefits paid to a surviving spouse cease due to remarriage, an identical benefit will be paid from the LEOFF 2 or WSPRS trust fund.

COST SUMMARY

Impact on Contribution Rates (Effective 07/01/2015)		
Fiscal Years 2015-2017 State Budget	LEOFF 2	WSPRS
Employee (Plan 2)	0.10%	0.15%
Employer	0.06%	0.15%
State	0.04%	

Budget Impacts			
(Dollars in Millions)	2015-2017	2017-2019	25-Year
General Fund-State	$1.4	$1.5	$23.2
Local Government	$2.1	$2.2	$34.6
Total Employer	$3.7	$4.0	$60.1

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

HIGHLIGHTS OF ACTUARIAL ANALYSIS

The benefits provided under this bill have a cost to the system because they are new benefits that will be paid out of the pension trust funds.

- ❖ We relied on current survivor data from L&I in estimating the costs for surviving spouses who have either (1) remarried and had their L&I benefits stopped or, (2) are in-receipt of L&I benefits and could remarry in the future.
- ❖ We relied on current valuation data to estimate costs for future duty-related deaths where the surviving spouse could remarry and receive benefits from the pension trust fund.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

The costs of this bill will vary based on the assumptions used to determine the likelihood a benefit will be paid and the length of time it will be paid.

- ❖ Compared to our Best Estimate of 40 percent of survivors remarrying on average four years after the member's death, we also measured the impact of assuming 15 percent remarrying after six years (Low), and 65 percent remarrying after two years (High).

Impact on Contribution Rates			
Total Employer	Low	Best Estimate	High
LEOFF 2	0.04%	0.10%	0.16%
WSPRS	0.08%	0.15%	0.22%

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

How The Revised Fiscal Note Differs From The Prior Fiscal Note

This fiscal note differs from the prior version in two ways.

- First, the Department of Retirement Systems (DRS) determined the Cost-of-Living Adjustment (COLA) applied to these benefits is not the same as those applied to retirement benefits and will be based upon the percent increase in the State Average Wage (SAW) consistent with current L&I administrative practices. The SAW is the Washington State average annual wage as determined by the Employment Security Department (ESD) under RCW 50.04.355.
- Second, we received updated data from the Department of Labor & Industries (L&I) regarding current survivors that could be eligible for this benefit in the future.

WHAT IS THE PROPOSED CHANGE?

Summary Of Benefit Improvement

This bill impacts the following systems:

- Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 2.
- Washington State Patrol Retirement System (WSPRS).

This bill states that upon the remarriage of a surviving spouse of a LEOFF 2 or WSPRS member who dies in the line of duty, the survivor will receive a benefit paid from the LEOFF 2 or WSPRS trust fund that is equivalent to the benefit the survivor had been receiving from L&I.

Effective Date: 90 days after session.

How The Substitute Bill Differs From The Original Version

The original bill stated that death benefits paid from L&I would not cease upon remarriage. In the substitute version, a survivor who remarries will receive an identical benefit paid from the LEOFF 2 or WSPRS trust fund instead.

What Is The Current Situation?

When a member of LEOFF 2 or WSPRS suffers a duty-related death, the member's eligible surviving spouse receives insurance benefits paid from L&I. If the survivor remarries, those benefits cease.

Who Is Impacted And How?

We estimate this bill could affect current or future survivors of duty-related deaths of these systems through improved benefits. Furthermore, we expect about 30 current survivors and approximately two survivors each year in the future will actually receive improved benefits. See the **Special Data Needed** section of this fiscal note for more details.

We estimate this bill will improve the benefits for a typical survivor by allowing them to remarry and maintain benefits that L&I would have suspended under current law. This bill impacts all active LEOFF 2 and WSPRS members through increased 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 upon remarriage, a surviving spouse will continue to receive death benefits L&I would have suspended under current law. Those benefits have a cost to the system because they are new benefits that will be paid out of the pension trust funds.

Who Will Pay For These Costs?

The cost of this benefit change will be paid through an increase in contribution rates shared equally by members and employers under the respective system's standard funding methods.

- ❖ WSPRS 1/2: 50 percent member and 50 percent employer.
- ❖ LEOFF 2: 50 percent member, 30 percent employer, and 20 percent State.

HOW WE VALUED THESE COSTS

Assumptions We Made and How We Applied These Assumptions

To price the full impact of this bill, we had to answer the following questions.

1. How many duty-related deaths do we expect to occur in the future?
2. What portion of the eligible population is married?
3. Of surviving spouses, what portion choose to remarry?
4. How long after the member's death do surviving spouses remarry?
5. What is the benefit amount that will be paid from the trust funds?

We have actual data for some of these questions, depending on the group we are modeling. For instance, we received information from L&I on survivors who have already remarried. We expect all of those survivors will begin receiving replacement benefits from the pension trust funds starting from the effective date of this bill.

For potential survivors of active members, we assume 40 percent will remarry an average of four years after the member's duty-related death. We use the same assumption for the group of current unmarried survivors, but assume remarriage occurs on average two years from the effective date of this bill since the member's death occurred in the past.

For more detail on the assumptions we selected and how we applied them, please see **Appendices A** and **B.**

In order to estimate the COLA, we assumed the SAW would grow by 3.75 percent per year. We relied on historical SAW data (1980-2012) gathered from the Office of Financial Management (OFM) in setting this assumption. The ESD publishes six years of historical data available online (2008-2013). Please see **Appendix C** for more details.

Special Data Needed

We relied on data from L&I regarding current surviving spouses of duty-related deaths. We compared this data to our valuation data on eligible survivors receiving reimbursement for medical premiums as a result of a duty-related death. The data was not audited but we found it reasonable for the purposes of this pricing.

- L&I provided individual data on nine surviving spouses who have remarried. Their average current age is 53 and their expected annual benefit under this bill is approximately $23,000. Before being actuarially reduced for the settlement amount they received, the benefit averaged $26,000.

- L&I provided individual data on 53 surviving spouses who have not remarried. Their average age as of the valuation date is 51 and their expected annual benefit under this bill is approximately $51,000. We chose to exclude eight survivors identified by L&I because we do not believe they are eligible for the benefits provided under this bill upon remarriage. Please see **Appendix C** for more details.

Otherwise, we developed these costs using the same assets and data as disclosed in the *June 30, 2013 Actuarial Valuation Report* (AVR).

ACTUARIAL RESULTS

How The Liabilities Changed

This bill will impact the actuarial funding of LEOFF 2 and WSPRS by increasing the present value of future benefits payable under the systems as shown below.

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)			
LEOFF 2	$10,314	$34.7	$10,349
WSPRS 1/2	$1,132	$2.3	$1,134
Unfunded Projected Unit Credit Liability			
(The Value of the Total Commitment to all Current Members Attributable to Past Service that is Not Covered by Current Assets)			
LEOFF 2	($1,003)	$34.7	($968)
WSPRS 1/2	($50)	$2.3	($48)

Note: Totals may not agree due to rounding.

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. However, we will use the un-rounded rate increases shown below to measure the budget changes in future biennia.

Impact on Contribution Rates		
System/Plan	LEOFF 2	WSPRS
Current Members		
Employee (Plan 2)	0.099%	0.147%
Employer	0.059%	0.147%
State	0.040%	
New Entrants*		
Employee (Plan 2)	0.047%	0.016%
Employer	0.028%	0.016%
State	0.019%	

**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)	**LEOFF 2**	**WSPRS**	**Total**
2015-2017			
General Fund	$1.4	$0.0	$1.4
Non-General Fund	0.0	0.2	0.2
Total State	**$1.4**	**$0.3**	**$1.6**
Local Government	2.1	0.0	2.1
Total Employer	**$3.5**	**$0.3**	**$3.7**
Total Employee	**$3.5**	**$0.3**	**$3.7**
2017-2019			
General Fund	$1.5	$0.0	$1.5
Non-General Fund	0.0	0.2	0.2
Total State	**$1.5**	**$0.2**	**$1.7**
Local Government	2.2	0.0	2.2
Total Employer	**$3.7**	**$0.2**	**$4.0**
Total Employee	**$3.7**	**$0.2**	**$4.0**
2015-2040			
General Fund	$23.1	$0.2	$23.2
Non-General Fund	0.0	2.2	2.2
Total State	**$23.1**	**$2.4**	**$25.5**
Local Government	34.6	0.0	34.6
Total Employer	**$57.7**	**$2.4**	**$60.1**
Total Employee	**$57.7**	**$2.4**	**$60.1**

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.

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.

How the Risk Measures Changed

We have not analyzed this bill using the risk assessment model. We chose not to use the risk assessment model because we do not have the resources to do risk analysis on every bill.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

To determine the sensitivity of the actuarial results to the Best Estimate assumptions selected for this pricing, we varied the percent of the eligible survivors we expect will remarry and how quickly remarriage may occur.

- ❖ For a Low sensitivity, we assumed 15 percent of survivors would remarry on average six years after the member's death.
- ❖ For a High sensitivity, we assumed 65 percent of survivors would remarry on average two years after the member's death.

The following tables show the estimated contribution rate and budget impacts under these scenarios compared to our Best Estimate. Note that for the current unmarried survivors, we adjusted the portion we expect will remarry under this sensitivity analysis but did not change the assumed two-year delay until remarriage.

Impact on Contribution Rates			
Total Employer	Low	Best Estimate	High
LEOFF 2	0.04%	0.10%	0.16%
WSPRS	0.08%	0.15%	0.22%

25-Year Budget Impacts			
Total Employer	Low	Best Estimate	High
LEOFF 2	$22.2	$57.7	$97.8
WSPRS	$1.2	$2.4	$3.7

These scenarios are presented for illustrative purposes only to provide the reader a sense of the likely range of results. However, they do not represent the entire spectrum of possible outcomes.

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 prepared this fiscal note for the Legislature and is intended to apply to the 2015 Legislative Session.

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 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, assumptions, and data may also be reasonable, and might produce different results.
5. We prepared this fiscal note for the Legislature and is intended to apply to the 2015 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.

Lisa A. Won, ASA, FCA, MAAA
Deputy State Actuary

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APPENDIX A – ASSUMPTIONS WE MADE

To price the impact of this bill for current active members who may suffer a future duty-related death and whose spouse may remarry, we made the following assumptions.

- We relied on our current assumptions for the portion of active deaths that are duty-related. Please see the AVR for the age-based assumptions by retirement system and plan. The assumptions start at 100 percent of active deaths for young ages and decrease over time.
- We relied on our current assumption that approximately 64 percent of active members that die from duty-related causes are married. Please see the AVR for the age-based assumptions by retirement system and plan.
- We assumed that 40 percent of surviving spouses of duty-related deaths would remarry in the future.
    - ◊ We found data from the U.S. Census Bureau regarding the percent of people who remarry following a marriage dissolution. The portion has declined from 89 percent in 1960 to 54 percent in 1980. This data includes remarriage after divorce and does not separately report remarriage after death of a spouse.
    - ◊ We also considered actual experience for survivors receiving L&I benefits, which indicates 15 percent chose to remarry. However, some of these survivors may have elected to not get remarried because their benefits would be suspended under current law.
- We assumed that, of surviving spouses who remarried, their remarriage would occur on average four years after the member's death.
    - ◊ We found data from the U.S. Census Bureau regarding how many years a widowed person waits until remarriage (males 3.0 years / females 4.4 years).
    - ◊ We also considered actual experience for current survivors who have remarried, which indicates they remarry on average six years after the member's death. The assumption we selected is shorter than the average we observed since we expect the improved benefits will remove a potential deterrent.

To price the impact of this bill for current eligible survivors who have already remarried, we assumed their benefits would be paid for life starting on the effective date of the bill.

To price the impact of this bill for current eligible survivors who have not yet remarried, we assumed 40 percent would remarry on average two years after the effective date of the bill. Their benefits are assumed to be paid for life.

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

APPENDIX B – HOW WE APPLIED THESE ASSUMPTIONS

To price the impact of this bill for current active members, we modeled the new benefits as follows.

- ❖ A 60 percent of salary benefit is paid to the survivors of a duty-related death that we assumed would remarry. We used our valuation software to value these benefits for active members who may suffer a duty-related death in the future.
  - ◊ The annual benefit is subject to a 15 percent floor and a 120 percent cap of the SAW.
- ❖ The lifetime benefit is paid out of the trust funds starting on the date of remarriage, after the assumed deferral period since the member's death. The annual benefit is increased with a COLA. Based on input we received from DRS, this COLA will be based upon the percent increase in the SAW consistent with current L&I administrative practices.

To price the impact of this bill for current eligible survivors, we modeled the new benefits as follows.

- ❖ We determined the liability impact for the current survivors who have remarried using single life annuity factors multiplied by their annual benefit. We offset the liability by the settlement amount they received upon remarriage, consistent with provisions laid out in this bill. Finally, based on input we received from DRS regarding administration of COLAs, we included future COLAs from the effective date of this bill, consistent with current L&I administrative practices.
- ❖ We determined the liability impact for the current survivors who have not remarried using single life annuity factors multiplied by the annual benefit they currently receive from L&I. The annuity factors include an assumed 3.75 percent COLA during the two-year deferral period.

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

We used the Entry Age Normal Cost Method to determine the fiscal budget changes for future new entrants. We used the Aggregate Funding Method to determine the fiscal budget changes for current plan members.

APPENDIX C – SPECIAL DATA NEEDED

In order to estimate the COLA, we reviewed SAW data from ESD and OFM. The following table documents the historical data available on their respective websites. We relied on this data as complete and accurate.

Every year, the ESD determines a state average wage based on salaries of employees (both public and private sector) covered by unemployment insurance. The SAW is used for purposes of unemployment and worker's compensation benefits. In 2013—the most recent year available—the annual SAW was $52,635.

Over the last ten and twenty-five year periods, the annualized percent increase in the SAW data gathered from OFM ranges from 3.23 percent to 3.95 percent, respectively. The amount of the increase has always been positive and appears to be cyclical, although the volatility has declined in recent years since the Great Recession. We were unable to locate a lengthy history of the SAW from ESD, however the values track the OFM data relatively closely.

Year	ESD	OFM	Year	OFM
2013	$52,635	N/A	1996	$29,348
2012	$51,595	$52,945	1995	$27,918
2011	$49,894	$51,139	1994	$26,882
2010	$48,162	$49,337	1993	$26,234
2009	$47,153	$47,993	1992	$25,870
2008*	$46,274	$47,140	1991	$24,211
2007	N/A	$46,114	1990	$22,885
2006	N/A	$43,825	1989	$21,636
2005	N/A	$41,704	1988	$20,816
2004	N/A	$40,464	1987	$20,124
2003	N/A	$39,309	1986	$19,649
2002	N/A	$38,529	1985	$18,912
2001	N/A	$37,798	1984	$18,282
2000	N/A	$37,544	1983	$17,918
1999	N/A	$36,113	1982	$17,539
1998	N/A	$33,598	1981	$16,533
1997	N/A	$31,243	1980	$15,086

**2008 ESD figure imputed based on the increase provided in the 2009 report.*

The membership data we excluded can be summarized as follows:

- ❖ Three of the survivors were identified by DRS as eligible for PERS benefits; and,
- ❖ Five survivors are not part of the DRS systems and may in fact be part of the Pre-LEOFF system. L&I confirmed they are not part of WSPRS.

These excluded survivors have an average age of 70 with a current annual L&I benefit of about $32,000. If all of the excluded survivors are ultimately determined to be eligible for the benefits from the LEOFF 2 trust fund and the assumed 40 percent of survivors re-marry, we expect contribution rates will increase by approximately one basis point.

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 Unit Credit (PUC) Liability: The portion of the Actuarial Present Value of future benefits attributable to service credit that has been earned to date (past service) based on the PUC method.

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 PUC Liability: The excess, if any, of the Present Value of Benefits calculated under the PUC cost method over the Valuation Assets. This is the portion of all benefits earned to date that are not covered by plan assets.

BARTEL ASSOCIATES, LLC

September 15, 2015

Law Enforcement Officers' & Firefighters' Plan 2 Retirement Board
P.O. Box 40918
Olympia, Washington 98504-0918

Re: Actuarial Review of SHB 1194 Fiscal Note

Chairman Fox and Members of the Board:

There follow the results of our actuarial review of the above fiscal note.

Background

SHB 1194 removed the L&I restriction on remarriage for those entitled to L&I survivor benefits due to death in the line of duty. This was achieved by providing that after remarriage the benefit payable to the surviving spouse would be paid through LEOFF 2. The provision would impact both past and future remarriages; however payments would not be made retroactively. The L&I benefit is 60% of wages subject to a minimum of 15% of the State Average Wage and a maximum of 120% of the State Average Wage ($52,635 in 2013). Benefits increase with increases in the State Average Wage.

Based on data as of June 30, 2013 supplied by L&I, DRS, and OSA, there were 7 surviving spouses who remarried and will now become entitled to survivor benefits and 49 surviving spouses who have not remarried, but could be eligible in the future. In addition spouses of future deaths in the line of duty could become eligible should they remarry.

The increases in contribution rates calculated by the Office of the State Actuary for contribution rates are shown below.

Employee	0.10%
Employer	0.06%
State	0.04%
Total	0.20%

For budgeting purposes the Office of the State Actuary calculated a normal cost rate difference

Results of Review

Assumptions

In order to estimate the cost of this legislation it is necessary to make assumptions regarding rates of and timing of remarriage.

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Rate of Remarriage
Per the fiscal note:

- L&I data showed a 15% remarriage rate under the current remarriage provisions, and
- US census data showed remarriage rates following divorce or widowhood of 89% in 1960 and 54% in 1980.

Based on this data and taking into account a possible increase in marriage rates due to the elimination of the remarriage restriction, a 40% remarriage assumption was used for both current and future surviving spouses. The 40% assumption does not appear unreasonable. It is difficult to find ideal sources of relevant data in this area. However, age-gender remarriage tables used by the Railroad Retirement System and the Department of Defense would predict lower overall remarriage rates. In addition the census data remarriage rates may overstate remarriage rates for widows since remarriage rates following widowhood may be lower than those following divorce.

Timing of Remarriage
Based on census bureau data indicating that those widows remarrying did so in an average of 4.4 years and those widowers remarrying did so in an average of 3.0 years, an assumption of 4 years was made. L&I data showed an average of 6 years, but as with the L&I remarriage experience this may have been influenced by the remarriage provision. Based on this experience the 4-year assumption does not appear unreasonable.

For current surviving spouses a 2 year assumption was made. This assumption is not unreasonable based on the possible increase in marriage rates when the remarriage assumption is removed.

EANC Normal Cost
The contribution rate increases are based on the aggregate cost method. Due to the large proportion of the costs attributable to current surviving spouses, the increase in EANC normal cost, which we estimate at .09%, is considerably lower (less than half of) the contribution increase under the aggregate cost method.

Calculations
We independently calculated the supplemental rates and agree with the rates shown on page 1 which were based on data as of June 30, 2013.

Summary

We reviewed the supplemental contribution rate increases shown in the Office of the State Actuary August 28, 2015 Fiscal Note for SHB 1194.

Prediction of remarriage rates among widows/widowers is difficult. However, we agree that these supplemental rates represent reasonable estimates of the costs. We would suggest that the underlying assumptions be reviewed in future experience studies when the impact of any delayed remarriages is better known.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Sincerely,

Marilyn M. Oliver, F.S.A., M.A.A.A.
Vice President
Bartel Associates, LLC

John E. Bartel, A.S.A., M.A.A.A.
President
Bartel Associates, LLC

Cc. Steve Nelsen, Executive Director; Matthew M. Smith, State Actuary

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LEOFF
Plan 2 Retirement Board

Supplemental Rate Adoption

Final Report
September 23, 2015

Issue

- A supplemental rate change may be necessary due to the passage of SHB 1194

LEOFF
Plan 2 Retirement Board

Overview

- Ensuring actuarial soundness
- Adoption of supplemental rates

Background

- Rate adoption history
  - Keep level rates
- Costs
  - Remarriage assumption
- Full EANC

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Fiscal Note Changes

- Member - 0.05% increase
- Employer - 0.03% increase
- State - 0.02% increase
- DRS COLA
- Current Survivors

LEOFF Plan 2 Retirement Board

Options

Option 1: Do not adopt a supplemental rate

The Board would leave rates at:

Member	8.41%
Employer	5.05%
State	3.36%

LEOFF Plan 2 Retirement Board

Options

Option 2: Adopt OSA's recommended supplemental rates

The Board would adopt an increase in contribution rates of 0.05% for members, 0.03% for employers, and 0.02% for the state. Rates would increase to:

Member	8.46%
Employer	5.08%
State	3.38%

Options

Option 3: Adopt the full normal cost

The Board would adopt the full normal cost of the plan as presented by OSA last interim, including the cost of the new benefit. This would increase rates to:

Member	8.90%
Employer	5.34%
State	3.56%

LEOFF Plan 2 Retirement Board

Options

	Option 1 – Do not adopt a supplemental rate	Option 2- Adopt OSA's recommended supplemental rates	Option 3- Adopt the full normal cost, including the new benefit
Member	8.41%	8.46%	8.90%
Employer	5.05%	5.08%	5.34%
State	3.36%	3.38%	3.56%

LEOFF Plan 2 Retirement Board

Questions?

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LEOFF Plan 2 Retirement Board