

Multiple Agency Fiscal Note Summary

Bill Number: 5274 SB PL	Title: WSPRS salary definition
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Estimated Cash Receipts

Agency Name	2017-19		2019-21		2021-23	
	GF- State	Total	GF- State	Total	GF- State	Total
Washington State Patrol	0	315,000	0	315,000	0	315,000
Total \$	0	315,000	0	315,000	0	315,000

Estimated Expenditures

Agency Name	2017-19			2019-21			2021-23		
	FTEs	GF-State	Total	FTEs	GF-State	Total	FTEs	GF-State	Total
Department of Retirement Systems	.0	0	0	.0	0	0	.0	0	0
Washington State Patrol	.2	0	372,800	.1	0	329,000	.1	0	329,000
Actuarial Fiscal Note - State Actuary	.0	100,000	700,000	.0	(100,000)	(1,100,000)	.0	0	(1,100,000)
Total	0.2	\$100,000	\$1,072,800	0.1	\$(100,000)	\$(771,000)	0.1	\$0	\$(771,000)

Estimated Capital Budget Impact

NONE

OFM Note: Please see the page labelled "Page 2 of 15" in the actuarial fiscal note (second bullet point) for a cost estimate based on an assumption of members working 70 hours of voluntary overtime annually during the years that are used in pension calculations.

This legislation would increase the incentive for voluntary overtime. Members in their average final salary calculation period may be more willing to work optional overtime, given the greater financial benefit of overtime during the last few years prior to retirement.

Prepared by: Jane Sakson, OFM	Phone: 360-902-0549	Date Published: Final 4/28/2017
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* See Office of the Administrator for the Courts judicial fiscal note

** See local government fiscal note

FNPID: 48908

FNS029 Multi Agency rollup

Individual State Agency Fiscal Note

Bill Number: 5274 SB PL	Title: WSPRS salary definition	Agency: 124-Department of Retirement Systems
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Part I: Estimates

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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:	Phone:	Date: 04/24/2017
Agency Preparation: Mike Ricchio	Phone: 360-664-7227	Date: 04/25/2017
Agency Approval: Mark Feldhausen	Phone: 360-664-7194	Date: 04/25/2017
OFM Review: Jane Sakson	Phone: 360-902-0549	Date: 04/25/2017

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 amends the definition of “salary” in RCW 43.43.120 in the Washington State Patrol Retirement System (WSPRS) to include voluntary overtime earned after July 1, 2017. This would result in voluntary overtime of 70 hours or less per year being considered earnable compensation, which is used when calculating a retiree’s Average Final Salary and, therefore, his or her monthly benefit amount. This bill also identifies that this represents a benefit improvement that increases the maximum WSPRS member contribution rate under RCW 41.45.0631(1) by 1.10 percent.

This change, however, doesn’t have a cost impact on the Department of Retirement Systems (DRS) because it only increases the amount of salary the employer would report to DRS (which doesn’t require DRS to modify any processes or automated systems).

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

- Member and employer publications will be updated through the normal review process.
- The WSPRS member contribution rate of 8.44 percent will take effect July 1, 2017.

Part III: Expenditure Detail

Part IV: Capital Budget Impact

No impact.

Part V: New Rule Making Required

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

We may need to modify an existing WAC during the normal rule review process.

Individual State Agency Fiscal Note

Bill Number: 5274 SB PL	Title: WSPRS salary definition	Agency: 225-Washington State Patrol
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Part I: Estimates

☐

No Fiscal Impact

Estimated Cash Receipts to:

ACCOUNT	FY 2018	FY 2019	2017-19	2019-21	2021-23
State Patrol Highway Account-Private/Local 081-7	157,500	157,500	315,000	315,000	315,000
Total \$	157,500	157,500	315,000	315,000	315,000

Estimated Expenditures from:

	FY 2018	FY 2019	2017-19	2019-21	2021-23
FTE Staff Years	0.3	0.1	0.2	0.1	0.1
Account					
State Patrol Highway Account-State 081-1	50,800	7,000	57,800	14,000	14,000
State Patrol Highway Account-Private/Local 081-7	157,500	157,500	315,000	315,000	315,000
Total \$	208,300	164,500	372,800	329,000	329,000

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:

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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.

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

☐

Capital budget impact, complete Part IV.

☐

Requires new rule making, complete Part V.

Legislative Contact:	Phone:	Date: 04/24/2017
Agency Preparation: Eileen Nashleanas	Phone: 360-596-4044	Date: 04/25/2017
Agency Approval: Mary Thygesen	Phone: 360 596-4046	Date: 04/25/2017
OFM Review: Kathy Cody	Phone: (360) 902-9822	Date: 04/28/2017

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.

Passed Legislation SB 5274 revises the definition of salary to include voluntary overtime earned after July 1, 2017 for the purposes of the Washington State Patrol Retirement System (WSPRS). Currently, member and employer retirement system contribution rates are not collected on voluntary overtime since it is excluded from WSPRS pensions.

The bill excludes overtime earnings in excess of 70 hours per year related to voluntary overtime from retirement calculations. If this legislation passes we anticipate it will result in an increase in billable overtime costs.

The bill also increases the maximum member contribution rate to WSPRS, currently at 7.35 percent of pay, to 8.45 percent.

There is no fiscal change in the passed legislation for the Washington State Patrol (WSP).

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.

We estimate that an additional \$315,000 in private/local revenue will be received each biennium for the overtime billing to private entities as a result of increased overtime.

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.

The Office of the State Actuary assumed that future voluntary overtime use will average 31 hours (approximately four days) per year, per member. This was based upon data received from the WSP showing the amount of unused voluntary overtime during 2016. They estimate the additional overtime costs incurred for retirement contributions will be an additional \$0.7 million for the 2017-2019 Biennium.

The voluntary overtime consists of escorting oversize/overweight vehicles, team bus escorts, special event security such as football games and concerts, and working at Washington State Department of Transportation (WSDOT) construction sites. This overtime is billed to a variety of sources including the WSDOT and many private companies who contract for these services. We estimate that approximately \$192,500 per year in overtime expenditures will be recovered through billings to other state agencies which are shown as interagency reimbursements (Object S). The remainder will be private/local expenditures and covered by the revenue collected from these non-state agency sources.

The substitute bill limits the voluntary overtime that will count toward retirement to 70 hours per year. To calculate the impact of this change we made the following assumptions:

1. The term "year" as defined in the substitute bill refers to a state fiscal year.
2. The first 70 hours of voluntary overtime worked by a WSP commissioned officer in a state fiscal year would be included in WSPRS retirement calculations.
3. Once a WSP commissioned officer has worked 70 hours of voluntary overtime in a state fiscal year, additional voluntary overtime worked would not be included in WSPRS retirement calculations.

4. Voluntary overtime would still be subject to shift premium and callback penalty pay.
5. Voluntary overtime would still not be eligible for compensatory time earned.
6. Voluntary overtime would still be limited to RCW troopers, RCW sergeants, and RCW lieutenants.
7. Voluntary overtime would still be subject to connected callout rules.
8. Shift premium associated with the first 70 hours of voluntary time worked within a state fiscal year would also be included as salary in WSPRS retirement calculations.
9. Shift premium associated with voluntary overtime worked in excess of 70 hours within a state fiscal year would not be included in WSPRS retirement calculations.
10. HRMS would not need to be modified to support the change in WSPRS retirement calculations.

Our Time and Activity System (TAS) feeds payroll information into the statewide Payroll System (HRMS). To implement the programming changes in TAS; to test these changes; and to develop reports for payroll calculation, processing and audit purposes will require the following hours (shown by job class):

ITS4 - 378 hours

ITS5 - 5 hours

ITS6 - 50 hours

HRMS (Financial Systems Manager) - 158 hours

FA5 (Payroll Tester) - 109 hours:

We estimate this one-time cost will be \$43,800 for salaries, benefits and indirect costs.

There will also be additional ongoing costs to implement this change which include the following:

Prepare and analyze audit reports - WMS (Financial Systems Manager) - 48 hours annually

Prepare spreadsheets to track voluntary overtime hours by commissioned officer- WMS (Accounting Manager) - 24 hours annually

Oversee the billing process and ensure that not more than 70 hours of retirement pay is shown for each commissioned officer - FA4 -12 hours annually

Prepare billings to include the changes in retirement benefits - FA2 - 48 hours annually

We estimate this ongoing cost will be \$7,000 for salaries, benefits and indirect costs annually.

The WSP's indirect cost rate is based on the agency's negotiated federal rate of 29.90%. This rate is calculated on all categories of expenditures except capitalized equipment and is for the agency's administrative support costs associated with this bill. Support costs include items such as computer and telecommunications support, payroll processing and vendor payments, contract administration, ordering, accounting for and distribution of supplies, and human resource services.

Our assumptions are based the best case scenario. If this is not realized, we will request additional funding from the Legislature through the normal budget process.

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2018	FY 2019	2017-19	2019-21	2021-23
FTE Staff Years	0.3	0.1	0.2	0.1	0.1
A-Salaries and Wages	375,680	353,960	729,640	707,920	707,920
B-Employee Benefits	13,440	1,440	14,880	2,880	2,880
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	(192,500)	(192,500)	(385,000)	(385,000)	(385,000)
T-Intra-Agency Reimbursements	11,680	1,600	13,280	3,200	3,200
9-					
Total:	\$208,300	\$164,500	\$372,800	\$329,000	\$329,000

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

Job Classification	Salary	FY 2018	FY 2019	2017-19	2019-21	2021-23
FA2	49,296	0.0	0.0	0.0	0.0	0.0
FA4	60,012	0.0	0.0	0.0	0.0	0.0
FA5	64,620	0.0	0.0	0.0	0.0	0.0
ITS4	74,964	0.2		0.1		
ITS5	82,728					
ITS6	91,332	0.0		0.0		
WMS1 (Financial Systems Unit Manager)	60,016	0.0	0.0	0.0	0.0	0.0
WMS2 (Accountng Manager)	85,512	0.0	0.0	0.0	0.0	0.0
Total FTE's	568,480	0.3	0.1	0.2	0.1	0.1

Part IV: Capital Budget Impact

This bill does not impact the WSP's capital budget.

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.

This bill will not require any rule changes by the WSP.

Individual State Agency Fiscal Note

Bill Number: 5274 SB PL	Title: WSPRS salary definition	Agency: AFN-Actuarial Fiscal Note - State Actuary
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Part I: Estimates

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No Fiscal Impact

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

	FY 2018	FY 2019	2017-19	2019-21	2021-23
Account					
All Other Funds-State 000-1	300,000	300,000	600,000	(1,000,000)	(1,100,000)
General Fund-State 001-1	0	100,000	100,000	(100,000)	0
Total \$	300,000	400,000	700,000	(1,100,000)	(1,100,000)

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.

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

☐

Capital budget impact, complete Part IV.

☐

Requires new rule making, complete Part V.

Legislative Contact:	Phone:	Date: 04/24/2017
Agency Preparation: Darren Painter	Phone: 360-786-6155	Date: 04/24/2017
Agency Approval: Lisa Won	Phone: 360-786-6150	Date: 04/24/2017
OFM Review: Jane Sakson	Phone: 360-902-0549	Date: 04/24/2017

Part II: Narrative Explanation

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

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

II. B - Cash receipts Impact

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

II. C - Expenditures

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

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2018	FY 2019	2017-19	2019-21	2021-23
FTE Staff Years					
A-Salaries and Wages					
B-Employee Benefits	300,000	400,000	700,000	(1,100,000)	(1,100,000)
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:	\$300,000	\$400,000	\$700,000	(\$1,100,000)	\$(1,100,000)

Part IV: Capital Budget Impact

Part V: New Rule Making Required

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

SUMMARY OF RESULTS

BRIEF SUMMARY OF BILL: This bill allows voluntary overtime to be included in salaries for purposes of calculating retirement benefits in WSPRS. The bill also increases the maximum member contribution rate.

HOW THE ANALYSIS CHANGED FROM THE ORIGINAL VERSION

This bill limits the number of voluntary overtime hours included in a member's AFS to approximately nine days (70 hours) per year and increases the maximum member contribution rate from 7.34 to 8.44 percent. The number of volunteer hours we expect each member to perform during their AFS period did not change from our underlying analysis; however, the change to the maximum member contribution rate shifts a portion of future costs from the employer to employees.

COST SUMMARY

During 2017-19, a supplemental contribution rate is collected for the cost of benefit improvements under this bill and that cost is shared equally between members and the employer.

Impact on Contribution Rates (Effective 9/1/2017)	
Fiscal Years 2017-2019 State Budget	WSPRS
Employee	0.34%
Total Employer	0.34%

After 2017-19, employees pay a larger portion of total plan costs due to the new maximum member contribution rate. The table below displays the budget impacts resulting from both the benefit improvement under this bill and the cost shift due to the higher maximum member contribution rate.

Total Budget Impacts			
(Dollars in Millions)	2017-2019	2019-2021	25-Year
General Fund-State	\$0.0	(\$0.1)	(\$1.7)
Total Employer	\$0.7	(\$1.0)	(\$23.9)
Total Employee	\$0.7	\$2.4	\$39.2

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

HIGHLIGHTS OF ACTUARIAL ANALYSIS

- ❖ This bill increases the total expected cost of the retirement system because it expands the allowable sources of income included in a member's AFS.
- ❖ We assumed each WSPRS member would work 31 hours (approximately four days) of voluntary overtime annually.
- ❖ Members will pay a larger portion of total plan costs due to the higher maximum member contribution rate. This results in an expected long-term savings for the employer.
- ❖ In addition to the cost of paying higher than expected retirement benefits, the employer will make retirement contributions on higher than expected payroll. We estimate this employer impact to be \$0.7 million for the 2017-19 Biennium. We have excluded this cost in our analysis as we assume it will be included in other fiscal notes.

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

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

- ❖ The costs under this bill will vary depending on the total number of voluntary hours worked. We considered one less (and one additional) day of voluntary overtime per member annually. The 25-year total employer budget impact ranged from a savings of \$18 million to \$29 million and the 25-year total employee impact ranged from a cost of \$37 million to \$41 million.
- ❖ If members average four days of voluntary overtime annually during their career but shift more of it to their AFS period, higher pension benefits will be paid because of a larger AFS than assumed. For example, if all members work 70 volunteer hours each year during their AFS period, the supplemental rate for both members and the employer would be 1.10 percent and the 25-year total employer budget and employee impacts would each be approximately \$23 million.

WHAT IS THE PROPOSED CHANGE?

Summary Of Benefit Improvement

This bill impacts the following system:

- ❖ Washington State Patrol Retirement System (WSPRS).

The bill allows voluntary overtime to be included in the AFS used for purposes of calculating retirement benefits. The amount of voluntary overtime includable in AFS is limited to 70 hours per year.

Voluntary overtime is off-duty employment which members may choose, but are not required, to work. Examples of voluntary overtime include policing Department of Transportation construction sites, policing special events, and providing special emphasis patrols for the Washington Traffic Safety Commission (WTSC). Members may sign up for voluntary overtime in accordance with policies and procedures established by the agency.

The bill also increases the maximum member contribution rate in WSPRS from 7.34 percent of pay to 8.44 percent.

Effective Date: 90 days after session.

What Is The Current Situation?

Currently, voluntary overtime is excluded from AFS for purposes of calculating retirement benefits. Mandatory overtime is included in AFS.

AFS is generally the average of the highest:

- ❖ Two years of compensation in WSPRS 1.
- ❖ Five years of compensation in WSPRS 2.

WSPRS has a maximum member contribution rate of 7.34 percent of pay. The member maximum rate increases by 50 percent of the contribution rate increases from benefit improvements effective on or after July 1, 2007. The employer picks up any employee cost sharing that exceeds the employee rate maximum.

In addition to contributing toward the normal cost of the retirement systems, the employer also pays a separate rate to amortize the past costs of benefit improvements for survivors of members who became disabled prior to July 1, 2006. These are sometimes referred to as "Truman liabilities."

How The Amended Version Differs From The Original Version

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

- ❖ Limits the amount of voluntary overtime includable in AFS to 70 hours per year.
- ❖ Increases the maximum member contribution rate in WSPRS from 7.34 percent of pay to 8.44 percent.

Who Is Impacted And How?

We estimate this bill could affect all of the 1,035 active members of this system through improved benefits. Specifically, this bill would increase the benefits for members by increasing the salary their retirement benefit is based on.

For example, a member who retires with an AFS of \$80,000 and 25 years of service under current law will receive an annual benefit of \$40,000 per year at retirement. If the same member increased their AFS by 5 percent via voluntary overtime, as allowed under this bill, then their annual benefit at retirement would be 5 percent larger (\$42,000). A 5 percent increase is approximately equal to a member working 70 hours annually during their AFS period.

This bill impacts all WSPRS members and their employers through increased contribution rates.

WHY THIS BILL HAS A COST AND WHO PAYS FOR IT

Why This Bill Has A Cost

This bill expands the allowable sources of income that can be included in a member's AFS. A member who works voluntary overtime during their AFS period will have a larger benefit upon retirement.

Who Will Pay For These Costs

Under current law, the WSPRS maximum member rate is coordinated with the cost of benefit improvements—the maximum rate goes up by one-half of the cost of benefit improvements. This bill would override that relationship by increasing the maximum member rate by a fixed amount that exceeds one-half the expected cost of the benefit improvement in the bill. However, the bill doesn't change the supplemental rate that can be charged under current law. This will result in a shift of plan costs from the employer to the member in future biennia as follows:

- ❖ 2017-19: Member and employer rate goes up by one-half the cost of the benefit increase for voluntary overtime through a supplemental rate increase. No cost shifting.
- ❖ 2019-2021: Member and employer contribution rates calculated using the new member rate maximum of 8.44 percent. This will result in a portion of current plan costs being shifted from the employer to the members.

If actual costs are more or less than we expect, the costs described in this fiscal note may vary and could fall outside the range of results shown. As an example, if voluntary overtime exceeds our best estimate assumption, additional costs could be borne by the employer if the member maximum remains at 8.44 percent. Also, if projected current law costs are lower than we expect, the cost for increasing the member maximum contribution rate could be lower than presented in this fiscal note.

HOW WE VALUED THESE COSTS

Assumptions We Made

The Washington State Patrol (WSP) provided us with six years of historical voluntary overtime data. This data shows that, on average, each active member of the plan had approximately three days of overtime. In addition, the voluntary overtime was equally spread between a member's AFS period and non-AFS period.

We assumed future voluntary overtime use will average 31 hours (approximately four days) per year. We based this on additional data we received from WSP regarding unused voluntary overtime during 2016, and our expectation that voluntary overtime usage will increase when included in pensionable salary.

We understand the WSP has adopted administrative practices to fill voluntary overtime shifts on a first-come, first-served basis and prevent self-assignment of shifts. We assume this practice will continue and the amount of voluntary overtime for WSPRS members will be spread evenly across the plans and evenly across all ages. If future administrative practices around voluntary overtime change, then the actual costs of the bill could be higher or lower than the costs shown in this fiscal note.

Under the current assumptions for the plan, the projected member contribution rates, over the 25-year period, would not fall below the new member maximum set in this bill, 8.44 percent.

We assumed the increase in pensionable salaries would not change the expected payoff date of the Truman liabilities.

Unless noted otherwise, we developed these costs using the same assumptions as disclosed in the [June 30, 2015, Actuarial Valuation Report](#) (AVR).

How We Applied These Assumptions

We applied a one-time change to our general salary increase assumption to recognize that pensionable salaries paid would increase going forward. The assumed one-time salary increase is 2.19 percent higher than our current assumption. This is equivalent to each active member volunteering for approximately four days of overtime per year. Since voluntary overtime is paid at time and a half and average non-voluntary overtime hours worked in 2015 was 2,122, we calculate an increase in pensionable salary of 2.19 percent ($31 \times 1.5 / 2,122$).

To estimate the cost of this bill, we measured the difference in projected budgets before and after inclusion of voluntary overtime in the pensionable payroll.

Under this bill, the maximum member contribution rate is 8.44 percent (1.10 percent above current law). A maximum member contribution rate of 8.44 percent is 0.76 percent above our calculated supplemental rate (1.10 percent less 0.34 percent). To recognize the cost/savings of the new maximum member contribution rate we assumed the employee budget impact increased by 0.76 percent of pensionable payroll. Similarly, the employer budget impact decreased by 0.76 percent of pensionable payroll. This cost-shift begins in the 2019-21 Biennium and the pensionable payroll includes voluntary overtime.

Unless noted otherwise, we developed these costs using the same methods as disclosed in the AVR.

How We Updated Our Current Valuation

Before valuing the cost of this benefit improvement, we adjusted our underlying WSPRS valuations to reflect current law. The adjustments include (1) two, one-time compensation increases, and (2) assumes future service-based salary increases are consistent with the Law Enforcement Officers' and Fire Fighters' Retirement System.

The first one-time, 5 percent salary increase occurred on July 1, 2016, and applies to troopers, sergeants, lieutenants, and captains. The second salary increase will occur July 1, 2017, under the expected collective bargaining agreement, and applies a 16 percent increase to trooper salary and a 20 percent increase to sergeant and lieutenant salary.

For the second increase, we applied a weighted average increase of approximately 17 percent (and backed out the first 5 percent increase) based upon data provided by the Office of Financial Management. We relied on this data as complete and accurate; an audit of this data was not performed. We believe it is reasonable for this purpose.

Special Data Needed

We relied on information provided by the WSP to determine how much voluntary overtime had been used in the past. On average, we observed approximately three days of voluntary overtime per member, uniformly spread across all ages.

We also considered voluntary overtime shifts that were not worked. The data provided shows approximately 8 to 36 percent of available voluntary overtime was not utilized during 2016.

Please see **Appendix A** for additional details.

Otherwise, we developed these costs using the same assets and data as disclosed in the AVR.

ACTUARIAL RESULTS

How The Liabilities Changed

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

Impact on Pension Liability			
<i>(Dollars in Millions)</i>	Current	Increase	Total
Actuarial Present Value of Projected Benefits			
<i>(The Value of the Total Commitment to all Current Members)</i>			
WSPRS 1/2	\$1,291	\$9.8	\$1,301
Unfunded Entry Age Accrued Liability			
<i>(The Value of the Total Commitment to all Current Members Attributable to Past Service that is Not Covered by Current Assets)</i>			
WSPRS 1/2	\$47	\$4.8	\$52

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 will impact the actuarial funding of WSPRS by increasing the PVFS of the members of the system as shown below.

Present Value of Future Salaries			
(Dollars in Millions)	Current	Increase	Total
Actuarial Present Value of Future Salaries			
<i>(The Value of the Future Salaries Expected to be Paid to Current Members)</i>			
WSPRS 1/2	\$866	\$15.5	\$881

Note: Totals may not agree due to rounding.

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 increase shown below to measure the budget changes in future biennia.

Impact on Contribution Rates (Effective 09/01/2017)	
System/Plan	WSPRS
Current Members	
Employee	0.340%
Employer	0.340%
New Entrants*	
Employee	0.079%
Employer	0.079%

**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.*

The supplemental rate increase displayed above reflects the expected cost of the benefit increase shared equally between employees and the employer. This bill also increases the maximum member contribution rate above our calculated supplemental rate impact. For this reason, we expect a portion of total plan costs to shift from the employer to employees beyond the 2017-19 Biennium.

The table below displays how the contribution rates are expected to change during the 2017-19 and 2019-21 Biennia. "Current Law" reflects the rates adopted for 2017-19 and the projected contribution rates for 2019-21 as displayed on our [website](#). "SB 5274" reflects how the current law contribution rates are expected to increase when voluntary overtime is included in the AFS. "Amended SB 5274" reflects how the current law contribution rates are expected to increase when voluntary overtime is included in the AFS as well as the increase in the maximum member contribution rate. Please note that the sum of the employee and employer rates are equal under SB 5274 and Amended SB 5274.

Expected WSPRS Contribution Rates			
	Current Law	SB 5274	Amended SB 5274
2017-19 Biennium			
Employee	7.34%	7.68%	7.68%
Employer	12.81%	13.15%	13.15%
2019-21 Biennium*			
Employee	7.34%	7.68%	8.44%
Employer	18.32%	18.66%	17.90%

*Current Law rates consistent with projected contribution rates from Office of the State Actuary website. These contribution rates do not include adjustments referred to in **How We Updated Our Current Valuation** section of this fiscal note.

How This Impacts Budgets And Employees

The table below displays the net budget impact of including voluntary overtime in a member's AFS and the cost shift of the new maximum member contribution rate. Please see **Appendix B – Budget Impact Details** for a separate listing of these impacts.

Budget Impacts		
(Dollars in Millions)	WSPRS	Total
2017-2019		
General Fund	\$0.0	\$0.0
Non-General Fund	0.6	0.6
Total State	\$0.7	\$0.7
Local Government	0.0	0.0
Total Employer	\$0.7	\$0.7
Total Employee	\$0.7	\$0.7
2019-2021		
General Fund	(\$0.1)	(\$0.1)
Non-General Fund	(1.0)	(1.0)
Total State	(\$1.0)	(\$1.0)
Local Government	0.0	0.0
Total Employer	(\$1.0)	(\$1.0)
Total Employee	\$2.4	\$2.4
2017-2042		
General Fund	(\$1.7)	(\$1.7)
Non-General Fund	(22.2)	(22.2)
Total State	(\$23.9)	(\$23.9)
Local Government	0.0	0.0
Total Employer	(\$23.9)	(\$23.9)
Total Employee	\$39.2	\$39.2

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 system. The combined effect of several changes to the system could exceed the sum of each proposed change considered individually.

As with the costs developed in the actuarial valuation, the emerging costs of the system 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 believe the impact would be minor to the select measures of pension risk for all retirement systems combined.

However, we expect an increase to the member maximum contribution rate will improve certain risk measures for WSPRS as it increases the cost sharing under the plan.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

To determine the sensitivity of the actuarial results to the best estimate assumption we selected for this pricing, we varied the number of assumed days of voluntary overtime and the concentration of this overtime during their career.

For this sensitivity analysis, we assumed one less day of voluntary overtime (Low Sensitivity) and one additional day of voluntary overtime (High Sensitivity) than our Best Estimate. The table below displays the assumptions we used under each scenario, along with the resulting liability changes and the expected supplemental contribution rates. The 25-year total employer and employee fiscal impacts were broken into three steps: 1) Cost of Benefit Increase, 2) Impact of 8.44% Maximum Member Contribution Rate, and 3) Net Impact of steps 1 and 2.

Sensitivity Analysis – Voluntary Overtime Hours Worked			
<i>(Dollars in Millions)</i>	Low	Best	High
1) Cost of Benefit Increase	Sensitivity	Estimate	Sensitivity
Average Days of Voluntary Overtime Worked Per Member	3	4	5
One-Year General Salary Assumption Increase	1.65%	2.19%	2.74%
Increase in Present Value of Projected Benefits	\$7.5	\$9.8	\$12.4
Supplemental Employer Contribution Rates	0.26%	0.34%	0.43%
25-Year Total Employer Fiscal Costs	\$5.8	\$7.7	\$9.6
25-Year Total Employee Fiscal Costs	\$5.8	\$7.7	\$9.6
2) Impact of 8.44% Maximum Member Contribution Rate			
25-Year Total Employer Fiscal Costs	(\$34.7)	(\$31.6)	(\$28.0)
25-Year Total Employee Fiscal Costs	\$34.7	\$31.6	\$28.0
3) Net Impact			
25-Year Total Employer Fiscal Costs	(\$28.9)	(\$23.9)	(\$18.4)
25-Year Total Employee Fiscal Costs	\$40.5	\$39.2	\$37.6

Note: Totals may not agree due to rounding.

The “Cost of Benefit Increase” section of the table shows the impact of including voluntary overtime in AFS under each scenario, and matches the results provided in SB 5274 from the 2017 Legislative Session.

The "Impact of 8.44% Maximum Member Contribution Rate" section of the table shows the cost shift in employer and employee contributions starting in the 2019-21 Biennium. Since this bill defines a new maximum member contribution rate and current projected member rates are capped at the member maximum under current law, the 8.44 percent rate will be in effect for the next rate-setting cycle. In addition, our projections show the calculated member rates are capped at 8.44 percent for the remainder of the 25-year period reflected in the costs displayed in this fiscal note.

For our Best Estimate, we assumed all active members would receive an equal number of voluntary overtime shifts under this bill. However, the costs would increase if a higher portion of active members worked voluntary overtime during their AFS period. In 1999, the Joint Legislative Audit and Review Committee studied three years of overtime data and found members of WSPRS Plan 1 worked 42 percent more voluntary overtime hours during their AFS period than under their non-AFS period. Under this scenario, a member's retirement benefit is based on a higher than expected pensionable salary that was not pre-funded throughout a member's career.

We also considered how the results could change if all members retired with the maximum number of annual voluntary overtime hours (70 hours) during their AFS period. Under this sensitivity, we assumed the same total number of voluntary overtime days as in our Best Estimate; however, a larger portion of the voluntary overtime would be used during a member's AFS period. We assumed approximately two days of overtime per year during the non-AFS period and approximately nine days per year during the AFS period. If this scenario were to emerge in the future, we estimate a supplemental rate increase of 1.10 percent for both employees and employers. The 25-year total employer and employee costs would each be \$22.6 million. Under this scenario, the expected supplemental rate impact matches the bill's maximum member contribution rate so there isn't a cost shift between members and their employers as a result of the new maximum member contribution rate.

In addition, this bill could change retirement behavior of the plan now that a member has an opportunity to include additional compensation in their AFS. If a member retires sooner (or later) than we expect under our current assumptions, then we would generally expect a cost (or savings) under this bill. However, if members that are currently eligible to retire, delay their retirement in order to add voluntary overtime to their AFS, this behavior change could increase costs.

Also, if projected current law costs are lower than we expect, the cost for increasing the member maximum contribution rate could be lower than presented in this fiscal note.

The actual costs of this bill may fall outside the range of costs provided in our sensitivity analysis.

WHAT THE READER SHOULD KNOW

The Office of the State Actuary (“we”) prepared this fiscal note based on our understanding of the bill as of the date shown in the footer. We intend this fiscal note to be used by the Legislature during the 2017 Legislative Session only.

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

ACTUARY'S CERTIFICATION

The undersigned hereby certifies that:

1. The actuarial cost 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 during the 2017 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 – SPECIAL DATA NEEDED

We relied on information provided by the WSP regarding how much voluntary overtime had been used over the past six years. On average, we observed approximately three days of voluntary overtime per member.

WSP Voluntary Overtime Hours									
FY	Plan 1			Plan 2			Plans 1/2		
	Hours	# Active	Average Hours	Hours	# Active	Average Hours	Hours	# Active	Average Hours
2011	13,276	767	17	6,129	315	19	19,404	1,082	18
2012	24,988	712	35	8,784	354	25	33,772	1,066	32
2013	12,465	657	19	7,628	409	19	20,093	1,066	19
2014	13,209	609	22	8,766	435	20	21,975	1,044	21
2015	15,044	560	27	10,468	475	22	25,512	1,035	25
2016*	13,079	498	26	11,010	470	23	24,089	968	25
Average			24			21			23

*Number of active members based upon the Preliminary June 30, 2016, Actuarial Valuation Report.

WSP also provided data based on the age when voluntary overtime was worked. Voluntary overtime appeared relatively constant at each age.

Summary of Average Voluntary Overtime Hours			
Age	Average	Age	Average
21-25	33	41-45	31
26-30	27	46-50	25
31-35	28	51-55	21
36-40	29	56-60+	30

We also considered whether WSPRS members may work more voluntary overtime shifts under this bill. WSP provided us data on voluntary overtime shift usage for King County, Pierce County, Thurston County, and WTSC.

Voluntary Overtime Shift Data for 2016						
	Available	Worked		Not Worked		
	# Shifts	# Shifts	Hours	# Shifts	Hours	
King County	*	*	*	31	248	N/A
Pierce County	92.5	81.5	652	11	88	12%
Thurston County	64.5	59.5	476	5	40	8%
WTSC	412	262	2,096	150	1,200	36%

*Not available.

We observed approximately 1,600 hours of unused voluntary hours in Fiscal Year 2016. This data is not complete but provides an indication that additional voluntary overtime is available.

An audit was not performed on this data; we relied on the data as being complete and adequate. We believe this data is reasonable for purposes of pricing this bill.

APPENDIX B – Budget Impact Details

In the following tables, we break out the net budget impacts shown earlier in this fiscal note into the two key cost drivers of this bill:

- 1) **Cost Of Benefit Increase** - The budget impacts from including voluntary overtime in a member's AFS. The results displayed in this table will match our analysis from SB 5274 from the 2017 Legislative Session; and
- 2) **Impact Of Member Max** - The budget impacts of the cost shift resulting from the 8.44 percent maximum member contribution rate. The increase in employee contributions are offset by the decrease in employer contributions.

Budget Impacts - 1) Cost of Benefit Increase		
(Dollars in Millions)	WSPRS	Total
2017-2019		
General Fund	\$0.0	\$0.0
Non-General Fund	0.6	0.6
Total State	\$0.7	\$0.7
Local Government	0.0	0.0
Total Employer	\$0.7	\$0.7
Total Employee	\$0.7	\$0.7
2019-2021		
General Fund	\$0.0	\$0.0
Non-General Fund	0.6	0.6
Total State	\$0.7	\$0.7
Local Government	0.0	0.0
Total Employer	\$0.7	\$0.7
Total Employee	\$0.7	\$0.7
2017-2042		
General Fund	\$0.5	\$0.5
Non-General Fund	7.1	7.1
Total State	\$7.7	\$7.7
Local Government	0.0	0.0
Total Employer	\$7.7	\$7.7
Total Employee	\$7.7	\$7.7

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.

Budget Impacts - 2) Impact of Member Max		
<i>(Dollars in Millions)</i>	WSPRS	Total
2017-2019		
General Fund	\$0.0	\$0.0
Non-General Fund	0.0	0.0
Total State	\$0.0	\$0.0
Local Government	0.0	0.0
Total Employer	\$0.0	\$0.0
Total Employee	\$0.0	\$0.0
2019-2021		
General Fund	(\$0.1)	(\$0.1)
Non-General Fund	(1.6)	(1.6)
Total State	(\$1.7)	(\$1.7)
Local Government	0.0	0.0
Total Employer	(\$1.7)	(\$1.7)
Total Employee	\$1.7	\$1.7
2017-2042		
General Fund	(\$2.2)	(\$2.2)
Non-General Fund	(29.4)	(29.4)
Total State	(\$31.6)	(\$31.6)
Local Government	0.0	0.0
Total Employer	(\$31.6)	(\$31.6)
Total Employee	\$31.6	\$31.6

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.

GLOSSARY OF ACTUARIAL TERMS

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

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

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

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

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

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

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

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

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

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