



December 19, 2018

## FAS Benefit Improvement Pricing

### EDUCATIONAL BRIEFING

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### ISSUE STATEMENT

One of the goals of the LEOFF 2 Board's strategic plan is to keep the stakeholders informed. One of the ways of meeting that goal is for the Board to be briefed on the price of certain benefit improvements.

### OVERVIEW

The Board has been presented with numerous benefit improvement pricings over the past two years. For the final benefit pricing of the 2018 interim, staff asked the Office of the State Actuary to estimate the cost of a proposal which would lower the final average salary (FAS) period in the LEOFF 2 benefit calculation from five years to two years. This proposal improves benefits for future annuitants because retirement benefits would be calculated using a shorter FAS period. A shorter FAS period typically leads to a higher benefit because it is based on more recent and larger salaries.

For more information on previous pricings, please refer to Appendix A.

### BACKGROUND

A member's current benefit is calculated using the following formula:

$$2\% \times \text{Years of Service} \times \text{Final Average Salary}$$

Final average salary is defined as the monthly average of the member's basic salary for the highest consecutive sixty service credit months of service prior to such member's retirement, termination, or death. Periods constituting authorized unpaid leaves of absence may not be used in the calculation of final average salary. Reviews of other states' plans reveal there are a number of different periods used to calculate final average salary. Some systems use a period of one year, while others, like LEOFF Plan 2, use five years. Generally, if a shorter period is used

for the years of service, the FAS calculation will be higher. This is especially true as wages rise over time.

## TECHNICAL DETAILS

In communications to Board staff, OSA passed along the following details of their methodology for this pricing:

“To price this proposal, we assumed the current active members will retire with a 2-year AFC period. We then made an assumption on the impact of unexpected late career salary increases with a load. We considered two sources of data to develop our load assumption.

1. We considered our load assumptions for other Washington State retirement plans with two-year AFC periods. The plan-specific AFC Load assumptions range from 0.75% (TRS 1) to 7.0% (WSPRS 1). We developed these assumptions as part of the [2007-12 Demographic Experience Study \(AFC Load\)](#). In general, we feel this range gives us an idea for a reasonable LEOFF 2 load assumption. More specifically, we think the 4.5% (LEOFF 1) load assumption may best model LEOFF 2 because of similar job-duties and overtime opportunities between the two plans.
2. The LEOFF 2 Board did not have data on voluntary overtime or salary increases during a member’s AFC period but did provide our office with the 2012 WSIPP Report on Overtime and Excess Compensation [attached]. We found Exhibit E6 Average Monthly Earnings Before and During AFC Period informative because it summarized the percent increase between 5-year AFC period plans.
  - a. LEOFF 2 displayed an approximate 24 percent increase before and after AFC periods while PERS 2/3 and TRS 2/3 displayed an approximate 19 percent increase.
  - b. LEOFF 2 allows voluntary overtime in its AFC while PERS 2/3 and TRS 2/3 do not.
  - c. Given the information from this table; approximately five percent of LEOFF 2’s change in AFC could be attributed to voluntary overtime. This information gave us additional comfort with relying on the LEOFF 1 load assumption.
3. Given the two data sources above, we selected a 4.5% load assumption for this proposal; however, a different load assumption could also be reasonable and would materially impact results. As an example, assuming no load or a load consistent with WSPRS 1 (7.0%) would halve or increase contribution rate impacts by 25 percent, respectively.

We assumed no change in retirement behavior for this proposal. Recent experience shows that LEOFF 2 members generally retire after age 53 (Normal Retirement Age) and we do not believe

the higher benefits provided in this proposal would lead to earlier retirements. However, we may revisit this assumption if we were to price a similar proposal during the 2019 Legislative Session.

The cost analysis does not include the impact of members who have terminated with vested benefits or current annuitants. Inclusion of these inactive members in the pricing would materially increase the cost of the proposal.

These costs were developed using assumptions, assets, data, and methods consistent with the June 30, 2017 Actuarial Valuation Report (AVR). Please see our website for additional information about the [AVR](#).”

## RESULTS

Overall, OSA estimated the employee and total employer contribution rates would each increase by approximately 240 basis points under this proposal. Over a 25-year period, they expect a total employer cost of this proposal to be approximately \$1.4 billion. As a result of the increase in liabilities, the funded status would decline by approximately 7 percent.

### Expected Contribution Rate Increase

Impact on Contribution Rates: 2-Year AFC Future Retirements Only*		Rates with Benefit Improvement
	Best Estimate	
<b>Total Rate Increase</b>	<b>4.84%</b>	Employee – 11.01%
<b>Employee</b>	2.42%	Employer – 6.60%
<b>Employer</b>	1.45%	State – 4.41%
<b>State</b>	0.97%	

### Expected Budget Impact

Budget Impacts: 2-Year AFC Future Retirements Only			
(Dollars in Millions)	2019-2021	2021-2023	25-Year
<b>General Fund-State</b>	\$38.9	\$41.0	\$541.7
<b>Local Government</b>	\$58.2	\$61.5	\$812.3
<b>Total Employer</b>	<b>\$97.1</b>	<b>\$102.6</b>	<b>\$1,354.0</b>

## SUPPLEMENTAL INFORMATION

### Appendix A – Previous Pricings

## APPENDIX A – PREVIOUS PRICINGS

### Multiplier Increase

Board staff requested the state actuary's office to price two specific multiplier increases:

- 2.50% multiplier on all service
- 2.50% multiplier on prospective service only

Impact on Contribution Rates	
2.50% Multiplier - All Service	
Total Rate Increase	12.34%
Employee	6.17%
Employer	3.70%
State	2.47%

Contribution rates if this benefit was approved<sup>1</sup>:

- **Employee: 14.92%**
- **Employer: 8.95%**
- **State: 5.97%**

Impact on Contribution Rates	
2.50% Multiplier - Prospective Service Only	
Total Rate Increase	4.88%
Employee	2.44%
Employer	1.46%
State	0.98%

Contribution rates if this benefit was approved:

- **Employee: 11.19%**
- **Employer: 6.71%**
- **State: 4.48%**

Budget Impacts - 2.50% Multiplier - All Service			
(Dollars in Millions)	2018-2019	2019-2021	25-Year
General Fund-State	\$42.6	\$97.0	\$1,278.6
Local Government	\$63.7	\$145.5	\$1,917.9
<b>Total Employer</b>	<b>\$106.3</b>	<b>\$242.5</b>	<b>\$3,196.5</b>

Budget Impacts - 2.50% Multiplier - Prospective Service Only			
(Dollars in Millions)	2018-2019	2019-2021	25-Year
General Fund-State	\$16.9	\$41.8	\$777.8
Local Government	\$25.2	\$62.6	\$1,166.5
<b>Total Employer</b>	<b>\$42.0</b>	<b>\$104.4</b>	<b>\$1,944.3</b>

2015 Funded Status	
2015 Valuation Report	105%
2.5% Benefit Multiplier	90%

<sup>1</sup> Current contribution rates: Employee – 8.75%; Employer – 5.25%; State – 3.50%

<b>2.5% Benefit Multiplier Prospective Service Only</b>	100%
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### Tiered Multiplier

The following charts showcase the following options for a tiered multiplier:

1. Increased benefit multiplier from 2.0% to 3.0% for all earned and future service over 16 years (all service). Service earned from years 0 to 16 remains at a 2.0% multiplier.
2. Increased benefit multiplier from 2.0% to 3.0% for all service earned over 16 years after the valuation date (prospective service only). Service earned from years 0 to 16 remains at a 2.0% multiplier.

Impact on Contribution Rates	
Tiered Multiplier - All Service	
Total Rate Increase	11.06%
Employee	5.53%
Employer	3.32%
State	2.21%

*Contribution rates if this benefit was approved<sup>2</sup>:*

- **Employee: 14.28%**
- **Employer: 8.57%**
- **State: 5.71%**

Impact on Contribution Rates	
Tiered Multiplier - Prospective Service Only	
Total Rate Increase	7.31%
Employee	3.66%
Employer	2.19%
State	1.46%

*Contribution rates if this benefit was approved:*

- **Employee: 12.41%**
- **Employer: 7.44%**
- **State: 4.96%**

Budget Impacts - Tiered Multiplier - All Service			
<i>(Dollars in Millions)</i>	2018-2019	2019-2021	25-Year
General Fund-State	\$38.1	\$86.3	\$1,103.5
Local Government	\$57.2	\$129.5	\$1,655.4
<b>Total Employer</b>	<b>\$95.3</b>	<b>\$215.9</b>	<b>\$2,758.9</b>

Budget Impacts - Tiered Multiplier - Prospective Service Only			
<i>(Dollars in Millions)</i>	2018-2019	2019-2021	25-Year
General Fund-State	\$25.2	\$58.7	\$852.6
Local Government	\$37.9	\$88.0	\$1,279.1
<b>Total Employer</b>	<b>\$63.1</b>	<b>\$146.7</b>	<b>\$2,131.8</b>

2015 Funded Status	
2015 Valuation Report	105%
Tiered Benefit Multiplier	91%

<sup>2</sup> Current contribution rates: Employee – 8.75%; Employer – 5.25%; State – 3.50%

Tiered Benefit Multiplier Prospective Service Only	96%
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### Free 100% J&S for Active Members Only

Impact on Contribution Rates: No Cost 100% J&S Benefit*	
	Best Estimate
<b>Total Rate Increase</b>	<b>5.18%</b>
Employee	2.59%
Employer	1.56%
State	1.03%

#### Rates with Benefit Improvement

Employee – 11.18%

Employer – 6.71%

State – 4.47%

Budget Impacts: No Cost 100% J&S Benefit			
<i>(Dollars in Millions)</i>	2019-2021	2021-2023	25-Year
General Fund-State	\$40.7	\$41.6	\$536.1
Local Government	\$61.6	\$62.4	\$804.7
<b>Total Employer</b>	<b>\$102.3</b>	<b>\$104.0</b>	<b>\$1,340.8</b>

### Free 100% J&S for Active Members and Annuitants

Impact on Contribution Rates: No Cost 100% J&S Benefit*	
	Best Estimate
<b>Total Rate Increase</b>	<b>6.56%</b>
Employee	3.28%
Employer	1.97%
State	1.31%

#### Rates with Benefit Improvement

Employee – 11.87%

Employer – 7.12%

State – 4.75%

Budget Impacts: No Cost 100% J&S Benefit			
<i>(Dollars in Millions)</i>	2019-2021	2021-2023	25-Year
General Fund-State	\$51.8	\$51.9	\$630.5
Local Government	\$77.8	\$77.8	\$946.0
<b>Total Employer</b>	<b>\$129.6</b>	<b>\$129.7</b>	<b>\$1,576.5</b>



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# Issue

- One of the goals of the LEOFF 2 Board's strategic plan is to keep the stakeholders informed. One of the ways of meeting that goal, is for the Board to be briefed on the price of certain benefit improvements.

# Overview

- **Final benefit pricing of the 2018 interim**
  - Lower the final average salary (FAS) period in the LEOFF 2 benefit calculation from five years to two years.
    - This proposal improves benefits for future annuitants because retirement benefits would be calculated using a shorter FAS period.
    - A shorter FAS period typically leads to a higher benefit because it is based on more recent and larger salaries.

# Background

- A member's current benefit is calculated using the following formula:
  - $2\% \times \text{Years of Service} \times \text{Final Average Salary}$
- **FAS**
  - The monthly average of the member's basic salary for the highest consecutive sixty service credit months of service prior to such member's retirement, termination, or death.
  - Generally, if a shorter period is used for the years of service, the FAS calculation will be higher.
    - This is especially true as wages rise over time.

# Pricing Results

Overall, OSA estimated the employee and total employer contribution rates would each increase by approximately 240 basis points under this proposal.

- Over a 25-year period, they expect a total employer cost of this proposal to be approximately \$1.4 billion.
- As a result of the increase in liabilities, the funded status would decline by approximately 7 percent.

# Results cont.

Expected Contribution Rate Increase	
Impact on Contribution Rates: 2-Year AFC Future Retirements Only*	
	Best Estimate
<b>Total Rate Increase</b>	4.84%
<b>Employee</b>	2.42%
<b>Employer</b>	1.45%
<b>State</b>	0.97%

## Rates w/ Benefit Improvement

Employee – 11.01%

Employer – 6.60%

State – 4.41%

Expected Budget Impact			
Budget Impacts: 2-Year AFC Future Retirements Only			
(Dollars in Millions)	2019-2021	2021-2023	25-Year
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**Thank You**

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