



Office of the State Actuary

"Securing tomorrow's pensions today."

September 16, 2015

Mr. Steve Nelsen
Executive Director
LEOFF Plan 2 Retirement Board
P.O. Box 40918
Olympia, Washington 98504-0918

SUBJECT: 2015 ECONOMIC EXPERIENCE STUDY

Dear Steve:

Guided by applicable actuarial standards of practice, OSA performed an economic experience study to develop a recommendation for each long-term economic assumption for LEOFF 2. We developed the recommended assumptions as a consistent set of economic assumptions and it is recommended to review them as a set of assumptions.

We recommend maintaining the current assumptions for total inflation, general salary growth, and annual investment return. The table below summarizes the current and recommended long-term economic assumptions that apply to LEOFF 2.

Assumption	Current	Recommended
Inflation	3.00%	3.00%
General Salary Growth	3.75%	3.75%
Annual Investment Return	7.50%	7.50%

We find all current economic assumptions reasonable and recommend no changes. We updated the service based salary increase assumption during the [2007-2012 Demographic Experience Study](#) (DES). For the DES, we adjusted experience study data to remove short-term salary practices in response to the Great Recession. We developed the General Salary Growth assumption for the [2015 Economic Experience Study](#) (2015 EES) consistent with the methodology used for the DES. We observed an increase to productivity rates since the 2013 Economic Experience Study, however, we recommend maintaining the current assumed level of general salary growth.

Please see the 2015 EES and Appendix A on general salary growth for supporting information and analysis. We prepared the 2015 EES for the Pension funding Council, but the analysis in that report applies to LEOFF Plan 2 as well. Please combine the 2015 EES with this letter and the enclosed exhibit to form a complete actuarial communication for the LEOFF 2 Board.



Mr. Steve Nelsen
Page 2 of 3

Please let us know if you have any questions or need further information on the study.

Sincerely,

Lisa Won, ASA, FCA, MAAA
Deputy State Actuary

Kyle Stineman
Senior Actuarial Analyst

cc: Graham Dyer
Actuarial Analyst

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Appendix A

Growth in Salaries for Members Active for Two Consecutive Years							
LEOFF - 1984 to 2009							
Year of Service	Average Increase in Salary	Average Observed Inflation*	Average Observed Productivity	Average Observed Merit Increase	Currently Assumed Merit Increase	Cumulative Observed Merit Increase	Cumulative Assumed Merit Increase
0							
1	14.90%	3.14%	0.51%	10.86%	10.70%	110.86%	110.70%
2	11.47%	3.14%	0.51%	7.54%	7.50%	119.21%	119.00%
3	9.56%	3.14%	0.51%	5.70%	5.90%	126.00%	126.02%
4	7.54%	3.14%	0.51%	3.75%	3.70%	130.73%	130.69%
5	6.38%	3.14%	0.51%	2.63%	2.60%	134.17%	134.08%
6	5.57%	3.14%	0.51%	1.85%	1.80%	136.66%	136.50%
7	4.95%	3.14%	0.51%	1.25%	1.40%	138.36%	138.41%
8	4.92%	3.14%	0.51%	1.22%	1.30%	140.06%	140.21%
9	4.83%	3.14%	0.51%	1.14%	1.20%	141.65%	141.89%
10	5.33%	3.14%	0.51%	1.62%	1.70%	143.95%	144.30%
11	4.79%	3.14%	0.51%	1.10%	1.20%	145.53%	146.03%
12	4.78%	3.14%	0.51%	1.09%	1.20%	147.11%	147.79%
13	4.64%	3.14%	0.51%	0.95%	1.20%	148.51%	149.56%
14	4.98%	3.14%	0.51%	1.28%	1.20%	150.41%	151.36%
15	4.98%	3.14%	0.51%	1.29%	1.20%	152.35%	153.17%
16	4.57%	3.14%	0.51%	0.89%	1.00%	153.70%	154.70%
17	4.68%	3.14%	0.51%	1.00%	1.00%	155.23%	156.25%
18	4.80%	3.14%	0.51%	1.11%	1.00%	156.95%	157.81%
19	4.66%	3.14%	0.51%	0.97%	1.00%	158.48%	159.39%
20	5.03%	3.14%	0.51%	1.33%	1.00%	160.59%	160.98%
21	4.36%	3.14%	0.51%	0.68%	0.50%	161.68%	161.79%
22	4.28%	3.14%	0.51%	0.61%	0.50%	162.66%	162.60%
23	4.11%	3.14%	0.51%	0.44%	0.50%	163.38%	163.41%
24	4.15%	3.14%	0.51%	0.48%	0.50%	164.17%	164.23%
25	4.25%	3.14%	0.51%	0.57%	0.50%	165.12%	165.05%

*Average change in the CPI-W, Seattle, Tacoma, Bremerton, from 1984 to 2009.

Increase in Salary = (1 + observed inflation + observed productivity) * (1 + observed service based salary increase) - 1