



Office of the State Actuary

"Securing tomorrow's pensions today."

September 12, 2013

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

SUBJECT: 2013 ECONOMIC EXPERIENCE STUDY

Dear Steve:

Guided by applicable actuarial standards of practice, we performed an economic experience study to develop a best estimate range for each long-term economic assumption for LEOFF Plan 2. The recommended assumptions represent our best estimate from within each range. We developed them as a consistent set of economic assumptions and advise you to review them as a set of assumptions.

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. Even after adjustments to the experience study data to remove short-term salary practices in response to the Great Recession, we observed reductions in observed productivity rates for LEOFF 2 from the 2011 study to this current experience study. However, we recommend maintaining the current assumed level of general salary growth and will consider a reduction to the current merit/longevity salary scale during the next demographic experience study. We plan to complete the next demographic experience study in the summer of 2014.

Please see the [2013 Economic Experience Study](#) and the enclosed exhibit on general salary growth for supporting information and analysis. We prepared the *2013 Economic Experience Study* for the Pension Funding Council, but the analysis in that report applies to LEOFF Plan 2 as well. Please combine the *2013 Economic*



Experience Study with this letter and the enclosed exhibit to form a complete actuarial communication for the LEOFF 2 Board.

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

Sincerely,

Matthew M. Smith, FCA, EA, MAAA
State Actuary

Enclosure

cc: Lisa Won

O:\LEOFF 2 Board\2013\9-25\2013_Economic_Experience_Study.docx



Exhibit

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%	3.13%	0.36%	11.03%	11.00%	111.03%	111.00%
2	11.47%	3.13%	0.36%	7.71%	7.70%	119.59%	119.55%
3	9.56%	3.13%	0.36%	5.86%	6.10%	126.60%	126.84%
4	7.54%	3.13%	0.36%	3.92%	4.00%	131.56%	131.91%
5	6.38%	3.13%	0.36%	2.79%	2.80%	135.24%	135.61%
6	5.57%	3.13%	0.36%	2.01%	2.00%	137.96%	138.32%
7	4.95%	3.13%	0.36%	1.41%	1.60%	139.90%	140.53%
8	4.92%	3.13%	0.36%	1.38%	1.50%	141.84%	142.64%
9	4.83%	3.13%	0.36%	1.30%	1.40%	143.68%	144.64%
10	5.33%	3.13%	0.36%	1.78%	1.70%	146.24%	147.10%
11	4.79%	3.13%	0.36%	1.26%	1.30%	148.08%	149.01%
12	4.78%	3.13%	0.36%	1.25%	1.30%	149.93%	150.94%
13	4.64%	3.13%	0.36%	1.11%	1.30%	151.60%	152.91%
14	4.98%	3.13%	0.36%	1.44%	1.30%	153.78%	154.89%
15	4.98%	3.13%	0.36%	1.45%	1.30%	156.00%	156.91%
16	4.57%	3.13%	0.36%	1.05%	1.10%	157.64%	158.63%
17	4.68%	3.13%	0.36%	1.16%	1.10%	159.46%	160.38%
18	4.80%	3.13%	0.36%	1.27%	1.10%	161.48%	162.14%
19	4.66%	3.13%	0.36%	1.13%	1.10%	163.31%	163.93%
20	5.03%	3.13%	0.36%	1.49%	1.10%	165.75%	165.73%

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

Increase in salary = (1 + observed inflation + observed productivity) * (1 + observed merit) - 1