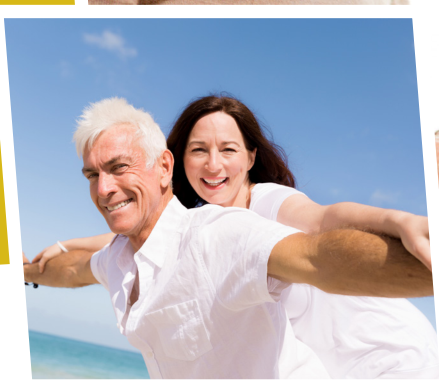
Washington State
Actuarial Valuation of LEOFF 1 Medical Benefits



Office of the State Actuary

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June 2015

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Letter of Introduction
Actuarial Valuation of
LEOFF 1 Medical Benefits
June 2015

As directed by the Legislature, the Office of the State Actuary completed an actuarial valuation of the post-retirement medical and long-term care benefits provided by local government employers to members of the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 1 (LEOFF 1). We prepared this report in accordance with the reporting requirements of Statement No. 45 of the Governmental Accounting Standards Board (GASB). Please see the background section for more information.

This report shows the value of the statewide liability, as of June 30, 2013, for the retiree medical benefits provided by LEOFF 1 employers. The responsibility to fund this liability belongs to the employers of LEOFF 1 members, not the state of Washington. The report shows the total liabilities and the sum of the individual Annual Required Contributions (ARC) for all LEOFF 1 members eligible for medical benefits. The total ARC for all plan members is the annual amount required under the actuarial cost method to fully fund the liability. It is made up of the normal cost plus the amortization of the unfunded past liability. Individual employers are not required to pre-fund their portion of the total statewide liability.

The report is organized into the following sections:

- Background.
- Actuarial Exhibits.
- Sensitivity Analysis.
- Participant Data.
- Appendices.

The **Background** section discusses the nature of Other Post-Employment Benefits liabilities, who is affected by the GASB requirements, and how actuaries calculate the liabilities. The **Actuarial Exhibits** section provides the results of this valuation and the necessary exhibits to satisfy the requirements of GASB Statement No. 45. The **Sensitivity Analysis** section provides further information about how the results change when we use different assumptions in our calculations. The **Participant Data** section provides summarized information about the retired members currently receiving medical benefits and the active members who will potentially receive medical benefits in the future. The **Appendices** provide a summary of the principal actuarial assumptions and methods, a summary of the major plan provisions, and a glossary of actuarial terms used throughout this report.

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Employers should not use this report to satisfy their individual employer reporting requirements under GASB Statement No. 45. The Office of the State Actuary created an online tool to help small employers calculate their individual reporting requirements. This online tool is meant to perform the alternative measurement method mentioned in GASB Statement No. 45 and can be used by employers with fewer than one hundred total plan members. The online tool is available on our website (listed below).

We encourage you to submit any questions you might have concerning this report to our regular e-mail address: *state.actuary@leg.wa.gov*. We invite you to visit our web site (*osa.leg.wa.gov*) for more information regarding the actuarial funding of the Washington State retirement systems.

Matthew M. Smith, FCA, EA, MAAA	Michael T. Harbour
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Key Results

KEY RESULTS

This section documents the key Governmental Accounting Standards Board Statement No. 45 (GASB 45) valuation and accounting results related to the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 1 (LEOFF 1) employer-provided medical benefits in Washington State. GASB 45 requires the following key measurements to be disclosed.

- **Actuarial Accrued Liability (AAL) –** The amount of medical benefits expected to be paid to current retirees and current active members (future retirees) that have already been earned, measured in today's dollars. Also referred to as the GASB 45 liability.

- **Annual Required Contribution (ARC) –** The annual amount required under the actuarial cost method to fully fund the liability. It is made up of the normal cost plus the amortization of the unfunded past liability. In other words, it is the amount of liability that will be earned in the next year, plus a portion of the unpaid liability that has already been earned.

- **Annual Other Post-Employment Benefits (OPEB) Cost –** The ARC plus the amortization of the Net OPEB Obligation (NOO; see next bullet point). The Annual OPEB Cost is the "expense" for financial reporting.

- **Net OPEB Obligation (NOO) –** The cumulative difference between the Annual OPEB Cost and actual employer contributions. The NOO is the "balance sheet liability" for financial reporting.

The table below shows these key measurements for the LEOFF 1 employers in Washington State. Please read the rest of the report for a detailed description of what these measures are, how they are calculated, and how they should be used. Please review the **Sensitivity Analysis** section for more information on how these numbers change with small changes in our assumptions.

GASB 45 Key Results		
(Dollars in Thousands)	2013	2011
Actuarial Accrued Liability (AAL)	$3,022,004	$2,513,534
Annual Required Contribution (ARC)	342,318	267,821
Annual OPEB Cost	301,320	245,410
Net OPEB Obligation (NOO)	$862,586*	$531,819

**Estimated NOO, projected to 6/30/2014.*

COMMENTS ON 2013 RESULTS

Significant changes in plan provisions or actuarial assumptions and methods impact the GASB 45 liability. Significant factors that impacted the results of this valuation include the following:

- We updated our demographic assumptions for LEOFF 1 members consistent with the 2007-12 Demographic Experience Study. This includes our assumptions for termination, disability, retirement, and the most significant assumption change, mortality. These assumption changes increased liabilities by approximately 20 percent from the prior valuation. Please see the gain/loss analysis section for further details.

- We projected medical and long-term care costs from the prior actuarial valuation to this valuation using the trend assumptions from the prior valuation. As a result, there were no changes in medical and long-term care assumptions for this valuation.

New GASB reporting rules may go into effect for the next report cycle two years from now. When the changes go into effect, we anticipate a shift in how these costs are presented and allocated to employers.

I. Background

OPEB

Other Post-Employment Benefits (OPEB), as defined by the Governmental Accounting Standards Board (GASB), are benefits that are provided to retired employees beyond those provided by their pension plans. Such benefits include medical, prescription drug, life, dental, vision, disability, and long-term care insurance. Law Enforcement Officers' and Fire Fighters' Retirement Plan 1 (LEOFF 1) employers pay 100 percent of "necessary medical services" for LEOFF 1 retirees.

NECESSARY MEDICAL SERVICES

The medical benefit, set up under RCW 41.26.150(1), provides free medical and long-term care coverage for LEOFF 1 retirees. The statute reads as follows:

> Whenever any active member, or any member hereafter retired, on account of service, sickness, or disability, not caused or brought on by dissipation or abuse, of which the disability board shall be judge, is confined in any hospital or in home, and whether or not so confined, requires medical services, the employer shall pay for the active or retired member the necessary medical services not payable from some other source...

The last employer of a retired LEOFF 1 member is responsible for the full cost of any post-retirement medical benefits.

Individual local disability boards administer the LEOFF 1 medical plan. One set of plan terms or conditions does not exist. Different boards interpret the language "necessary medical services" differently. For example, one board may deem dental costs as necessary, whereas another board may deem dental costs as quality of living and not reimburse the member for the costs.

DISABILITY BOARDS

The disability boards' authority is established under RCW 41.26.150(1)(a)&(b). It outlines each disability board's discretionary power:

1. power to determine whether an active employee has been disabled either in the line of duty or outside of duty.
2. The power to designate the medical services available to any sick or disabled member.

These disability boards were established before the creation of the LEOFF retirement system in 1970; however, more boards were created in 1970 to handle the expanded membership. There are three types of disability boards.

1. First class cities (one board for police and one board for fire fighters).
2. Other large cities (one board for both police and fire fighters).
3. Counties (one board for both police and fire fighters).

The main difference between these board types is the makeup of the members of the board. However, the difference is slight and all of these boards have the same power and duties. Each board, regardless of type, will use their own discretion regarding which medical services are fully paid by their LEOFF 1 employers.

INSURANCE

Insurance allows the LEOFF 1 employers to control the volatility in annual medical service costs. For example, if a LEOFF 1 employer only has one retiree, the ongoing annual costs will vary widely depending on whether that retiree had a relatively healthy year or entered long-term care. When many employers group together in an insurance pool, they will be able to pay a steadier annual amount to offset medical service costs. The Legislature has approved of this practice by codifying it in RCW 41.26.150(4).

> Any employer under this chapter, either singly, or jointly with any other such employer or employers through an association thereof...may provide for all or part of one or more plans of group hospitalization and medical aid insurance to cover any of its employees who are members of the Washington law enforcement officers' and fire fighters' retirement system, and/or retired former employees...through contracts with regularly constituted insurance carriers, with health maintenance organizations...or with health care service contractors....

The County Commissioners have established the Washington Counties Insurance Fund. The Association of Washington Cities has established the Association of Washington Cities Employees Benefit Trust, which provides indemnity coverage as well as HMO coverage. The Washington Fire Commissioners Association also provides a plan with indemnity and HMO coverage. Most LEOFF 1 employers have joined their respective association's medical plans.

The remaining LEOFF 1 employers not opting to join their association's medical plan have several other options. Some obtain coverage through union health and welfare plans (e.g. Teamsters). Some contract through other individual insurance providers. Self-insurance is another viable option for large LEOFF 1 employers, which a number of the larger political subdivisions have selected.

GASB 43/45

In the past, these free medical services have not been projected and accounted for under an accrual basis. Accrual accounting is meant to match the timing between when something occurs and when the employer accounts for the cost. In this case, it is meant to match the accounting expense to the year in which the benefits are earned by the member. Under pay-as-you-go funding, contributions are made when the cost occurs (after retirement). This cost is expensed as the LEOFF 1 employers in Washington State pay the current year's medical expenses. However, the unfunded liability, the difference between the projected cost of benefits members have earned and what the LEOFF 1 employers in Washington State have been paying, is growing and is not accounted for under the pay-as-you-go method. According to GASB, Statements No. 43 and 45 were created in an attempt to:

- Create financial transparency.
- Create better alignment between public and private sector accounting.
- Provide clarity among bargaining groups to show the true cost of benefits over time.
- Provide employers knowledge of the true cost of benefits over time.
- Provide investors knowledge of the true long-term liabilities.
- Show the decision makers that a liability exists.

GASB 43 requires disclosure of information related to the entire plan. In this case, since there is no statewide LEOFF 1 Medical plan, GASB does not require that a liability be calculated at the plan level. Instead, this report shows what the results would look like if all the LEOFF 1 employers were joined in one single plan. GASB 45 requires each employer to calculate their OPEB liability. The individual LEOFF 1 employers will be responsible for GASB 45. Using the same methods and assumptions, the summation of all the individual LEOFF 1 employers should equal the results in this report for the statewide liability. In addition to the overall liability, GASB requires that the Annual Required Contribution (ARC) must be calculated. The ARC is the annual amount required under the actuarial cost method to fully fund the liability. It is made up of the normal cost plus the amortization of the unfunded past liability. GASB does not require that LEOFF 1 employers actually contribute the ARC each year, just that it is recognized so that all stakeholders can see how adequately the liability is being funded.

As soon as an estimate of the GASB Actuarial Accrued Liability (AAL) is issued, it must be disclosed in every municipal Bond Prospectus. Rating agencies such as Moody's, Fitch, and Standard & Poor's will analyze the OPEB liabilities. Bond ratings, and the related cost of capital, may be impacted. However, the resulting analyses will not necessarily have a negative impact on ratings. These agencies will consider whether a plan is in place to manage these liabilities, look at the entity's ability to meet its budget, and analyze the size of the Unfunded Actuarial Accrued Liability compared to payroll, budget, and tax base when making their determinations.

ACTUARIAL VALUATION

In order to determine the GASB 45 liabilities, an actuarial valuation must be performed. An actuarial valuation is a way to determine what benefits will be paid throughout the future lifetimes of current members and discount those payments back to the present. The result is the present value of future benefits. For example, if you had a dollar amount today, which equaled the present value of future benefits, that amount could be invested, accrue earnings during the current plan members' lifetimes, and be paid out in a benefit stream when the members are eligible. The total amount remaining when there are no more benefits being paid would be zero. In this case, the benefits being paid out are the medical service costs for the LEOFF 1 retirees.

An actuarial valuation requires inputs such as participant data (who is receiving the benefits), benefit provisions (what are the benefits), and assumptions (how do we expect the members and the economy to behave). Participant data records include the members' ages, membership service, plan selection, etc. Benefit provisions include the structure of the benefits that the members receive; in this case, the retiree medical benefits paid by employers. Assumptions include the interest rate (investment return), health care inflation rates, general inflation rates, decrement rates (retirement, disability, and mortality), participation rates, Medicare coverage, etc.

The inputs are taken and valued using an actuarial cost method. The method chosen will allocate costs between past and future plan membership service. Distinct actuarial cost methods will produce somewhat different allocations since each method allocates cost a little bit differently. The inputs and the cost method are put into valuation software to determine the AAL and ARC. Essentially, the valuation software uses the inputs to determine when a benefit will be paid, how much the benefit will be, and how long it will be paid to each member. All of these benefits are then discounted back to today's dollars and summed to determine the present value of future benefits, the AAL, and the ARC for all plan members.

FUNDING POLICY

In the past, these medical expenses were funded on a pay-as-you-go basis, meaning that employers would pay these costs as they occurred. This generally means today's taxpayers are paying for benefits that were accrued (or earned) in the past. This funding policy conflicts with the principle of intergenerational equity, which requires that employers fund a member's benefits over the member's working lifetime. The idea is for the member's benefits to be paid by the taxpayers who benefit from that member's service, as opposed to making future taxpayers, who do not benefit from that member's service, pay for the member's benefits.

In the future, these liabilities can continue to be funded on a pay-as-you-go basis, or they can be pre-funded. If they continue to be funded on a pay-as-you-go basis, then a Net OPEB Obligation (NOO) will continue to accrue as the annual contributions fall short of the ARC. This funding policy results in lower current contributions, a growing liability, and continued conflict with the principle of intergenerational equity. In addition, if a pay-as-you-go funding method is selected, there will be no assets to invest; therefore, the interest discount rate must be lower, in the range of 3 to 5 percent. A lower interest discount rate will mean the reported overall liability will be larger.

If, instead, these liabilities are fully pre-funded, then contributions equal to the ARC must be made annually and placed in an irrevocable trust. If the choice to fully pre-fund is made, then no further NOO will accrue. This funding policy results in larger current contributions, a lower unfunded liability, and adherence to the principle of intergenerational equity. In addition, if the choice is made to pre-fund, there will be assets to invest; the investment return applied to the liabilities will reflect the expected long-term yield of the assets used to finance the payment of the benefits. If these assets are invested similarly to those in a typical retirement plan, an interest discount rate in the range of 7 to 8 percent can be used. A higher interest discount rate will mean the reported overall liability will be smaller.

It is important to note that switching from pay-as-you-go to pre-funding and creating a trust fund is a complicated process with many considerations. Such considerations include determining the level of pre-funding and weighing the short-term costs versus long-term benefits.

Another alternative is to choose a combination of the two funding policies. Partially pre-funding the liabilities will allow for an interest discount rate of 5 to 7 percent. A NOO will accrue, but not as fast as under a pay-as-you-go funding method. Choosing this combination of funding methods allows for decision-makers to keep current contributions manageable, while still pre-funding part of the liability and being able to earn some investment returns from the assets.

Lastly, partial or full pre-funding could occur under a non-dedicated fund. Under this approach, future benefit payments would be partially offset by anticipated investment earnings. A NOO would still accrue, however, since GASB requires funding under an irrevocable and dedicated trust.

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Actuarial Certification Letter
Actuarial Valuation of
LEOFF 1 Medical Benefits
June 2015

This report documents the results of an actuarial valuation of the post-retirement medical benefits offered by the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 1 (LEOFF 1) employers to their LEOFF 1 retirees. The primary purpose of this valuation is to determine and report the statewide liability, as of June 30, 2013, for the retiree medical benefits provided by LEOFF 1 employers. This valuation should not be used for other purposes. Individual employers should not use this report to satisfy their individual reporting requirements under Governmental Accounting Standards Board (GASB).

The valuation results summarized in this report involve calculations that require assumptions about future economic and demographic events. We believe that the assumptions and methods used in the underlying valuation are reasonable and appropriate for the primary purposes stated above. The use of another set of assumptions and methods, however, could also be reasonable and could result in materially different results.

The results of this analysis can quickly become outdated. Please replace this analysis with the results of our next report when available.

Consistent with GASB reporting requirements, we assumed a pay-as-you-go funding policy when selecting the assumed rate of investment return of 4 percent. The expected long-term yield on the assets used to finance the payment of benefits determines the assumed investment return. General and salary inflation are the same as those used in the *June 30, 2013, Actuarial Valuation Report* (AVR). Demographic assumptions are the same as those used in the AVR for LEOFF 1, which were developed from the *2007-2012 Experience Study* performed by our office. We selected the actuarial cost method.

Medical trend, long-term care trend, claims costs, and Medicare coverage were determined by healthcare actuaries at Milliman in 2012, contracted through the Office of the State Actuary. Milliman also performed analysis regarding high cost or "Cadillac" health plans in response to the federal Patient Protection and Affordable Care Act. The applicable provision levies a 40 percent tax on employers for the value of health plan costs that exceed certain thresholds starting in the year 2018. As a result, Milliman provided medical trend assumptions both with and without the excise tax.

We prepared the results in this report using assumptions that include the excise tax, but also illustrated the liability impact of not including the excise tax assumptions in the

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Sensitivity Analysis section. The inclusion of this excise tax in the report does not represent tax advice or an opinion that this tax applies to this plan.

In our opinion, all methods, assumptions, and calculations are reasonable and are in conformity with generally accepted actuarial principles and standards of practice as of the date of this publication.

The Department of Retirement Systems provided the member data used in this report. We checked the data for reasonableness as appropriate based on the purpose of the valuation. An audit of the participant data was not performed. There are currently no statewide assets as the statewide liability has not been pre-funded. We relied on all the information provided as complete and accurate. In our opinion, this data is adequate and complete for the purposes of this valuation.

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. While this report is intended to be complete, we are available to offer extra advice and explanations as needed.

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

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

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II. Actuarial Exhibits

PRESENT VALUE OF FUTURE BENEFITS

The Present Value of Future Benefits (PVFB) is the present value of future medical and long-term care benefits paid on behalf of current LEOFF 1 employees (actives/future retirees) and current LEOFF 1 retirees. The PVFB is based on all service currently earned and all service projected to be earned in the future. In other words, this is the present value of all future medical benefits, whereas the GASB Statement No. 45 (GASB 45) liability is the present value of all future medical benefits that members have earned. The table below shows the PVFB as of the valuation date, June 30, 2013, by current active and inactive members and shows what portions are attributable to medical and long-term care benefits.

Present Value of Future Benefits (PVFB)	
(Dollars in Thousands)	
Active Members[1]	
Medical	$68,621
Institutional Long-Term Care	21,466
Non Institutional Long-Term Care	7,460
Total Active	**$97,548**
Inactive Members[2]	
Medical	$1,958,366
Institutional Long-Term Care	724,232
Non Institutional Long-Term Care	248,751
Total Inactive	**$2,931,349**
Total	**$3,028,897**

Note: Totals may not agree due to rounding.

[1] *Currently employed.*

[2] *Retired members and terminated members entitled to a benefit.*

GASB 45 LIABILITY

The GASB 45 liability is the total accrued liability from the medical and long-term care benefits offered by LEOFF 1 employers. It is the present value of future medical benefits paid on behalf of current LEOFF 1 employees (actives / future retirees) and current LEOFF 1 retirees. The GASB 45 liabilities are based on all service currently earned. The GASB 45 liability is also referred to as the actuarial accrued liability. This table shows the GASB 45 liabilities as of the valuation date, by current active and inactive members and shows what portions are attributable to medical and long-term care benefits. Since nearly 100 percent of the plan is retired, almost all future medical benefits have been earned. Therefore, the GASB 45 liability and PVFB are approaching the same number.

GASB 45 Actuarial Accrued Liability (AAL)	
(Dollars in Thousands)	
Active Members[1]	
Medical	$63,815
Institutional Long-Term Care	19,912
Non Institutional Long-Term Care	6,928
Total Active	**$90,655**
Inactive Members[2]	
Medical	$1,958,366
Institutional Long-Term Care	724,232
Non Institutional Long-Term Care	248,751
Total Inactive	**$2,931,349**
Total	**$3,022,004**

Note: Totals may not agree due to rounding.

[1] Currently employed.

[2] Retired members and terminated members entitled to a benefit.

ARC, ANNUAL OPEB COST, AND NOO

The Annual Required Contribution (ARC) is the annual amount required under the actuarial cost method to fully fund the liability. It is made up of the normal cost plus the amortization of the unfunded past liability. In other words, it is the amount of liability that will be earned in the next year, plus a portion of the unpaid liability that has already been earned. The next table shows the ARC and its components as of the valuation date. The components are broken down by active and inactive members and the table shows what portions are attributable to the medical and long-term care benefits. The table shows that the majority of the ARC is made up of the amortization of the Actuarial Accrued Liability (AAL); the normal cost is small since there are relatively few actives left who are still accruing benefits.

The Annual OPEB Cost is the related annual accounting expense. The Annual OPEB Cost is made up of the ARC, the interest on the Net OPEB Obligation (NOO), and the amortization of the NOO. The NOO is the ongoing balance sheet item that shows the difference between the Annual OPEB Cost and what the employers have actually contributed. In other words, it is the liability for deficient contributions that has accumulated since the ARC was first calculated including interest at the discount rate. The tables on the next page show the estimated Annual OPEB Cost and NOO as of June 30, 2014.

Annual Required Contribution (ARC)	
(Dollars in Thousands)	
Normal Cost	
Medical	$1,459
Institutional Long-Term Care	455
Non Institutional Long-Term Care	158
Total Normal Cost	**$2,072**
Amortization	
Medical	$227,677
Institutional Long-Term Care	83,783
Non Institutional Long-Term Care	28,787
Total Amortization	**$340,247**
ARC	**$342,318**
Note: Totals may not agree due to rounding.	

Annual OPEB Cost	
(Dollars in Thousands)	
ARC	$342,318
Interest on NOO	27,042
Amortization of NOO	(68,041)
Annual OPEB Cost	**$301,320**
Note: Totals may not agree due to rounding.	

Net OPEB Obligation (NOO)	
(Dollars in Thousands)	
NOO (6/30/2013)	$676,060
Annual OPEB Cost	301,320
(6/30/2013 - 6/30/2014) Contributions*	(114,794)
NOO (6/30/2014)*	**$862,586**
Note: Totals may not agree due to rounding.	
**Estimated.*	

AMORTIZATION SCHEDULE

The Unfunded Actuarial Accrued Liability (UAAL) and NOO are amortized as a level dollar amount over a closed fifteen-year period. The following tables show what makes up this year's amortization of the UAAL and NOO.

Amortization of the UAAL

(Dollars in Thousands)	Beginning UAAL	Previous Amortization	Accrued Interest	Current UAAL	Amortization Factor	Amortization Amount
	(a)	(b)	(c)	(d) = (a-b+c)	(e)	(d/e)
9/30/2006	$1,745,427	$1,039,075	$399,644	$1,105,996	7.18	$153,937
6/30/2009	$334,291	$115,640	$44,746	$263,397	9.11	28,910
6/30/2011	$888,793	$153,729	$63,179	$798,243	10.39	76,864
6/30/2013	$854,369	$0	$0	$854,369	11.56	73,887
Total						$333,599
Interest on Contributions						6,648
Total UAAL Amortization						**$340,247**

Amortization of the NOO

(Dollars in Thousands)	Beginning NOO	Previous Amortization	Accrued Interest	Current NOO	Amortization Factor	Amortization Amount
	(a)	(b)	(c)	(d) = (a-b+c)	(e)	(d/e)
9/30/2006	$0	$0	$0	$0	N/A	$0
9/30/2007*	$82,319	$41,846	$17,080	$57,553	7.91	$7,277
6/30/2008	$64,269	$28,409	$12,068	$47,928	8.44	$5,682
6/30/2009	$75,848	$26,822	$12,066	$61,092	9.11	$6,705
6/30/2010	$99,254	$26,324	$12,715	$85,645	9.76	$8,775
6/30/2011	$101,064	$17,827	$9,328	$92,565	10.39	$8,913
6/30/2012	$162,944	$14,371	$9,299	$157,872	10.99	$14,371
6/30/2013	$170,037	$0	$3,367	$173,404	11.56	$14,996
Total						$66,720
Interest on Contributions						$1,321
Total NOO Amortization						**$68,041**

**Restated.*

ASSETS

Under GASB rules, employers must establish an irrevocable, dedicated, and protected trust for medical benefits in order to accumulate assets for accounting purposes. It is unknown how many individual LEOFF 1 employers have established such trusts for their LEOFF 1 medical obligations. As a result, we assumed all employers pay for medical benefits on a pay-as-you-go basis for purposes of this statewide valuation. When employers fund benefits on a pay-as-you-go basis, no assets accumulate for investment. The following table shows the market value of assets and the actuarial value of assets as of the valuation date.

Assets as of June 30, 2013	
(Dollars in Thousands)	
Market Value of Assets	$0
Amortization of Gains/(Losses)	0
Actuarial Value of Assets	$0

FUNDED RATIO

The funded ratio is the ratio of the present value of contributions that have been made for current members (and associated investment returns, if applicable) to the present value of the liability that has already been accrued (as defined by the funding method). A funded ratio of 100 percent indicates that all benefits that have been accrued have been funded as of the valuation date. A ratio of less than 100 percent indicates that all benefits that have been accrued have not been funded as of the valuation date. The table below shows the funded status of the LEOFF 1 employers' OPEB liability.

Funded Status as of June 30, 2013*	
(Dollars in Thousands)	
Actuarial Accrued Liability	$3,022,004
Assets	0
Unfunded Liability (6/30/2013)	$3,022,004
Funded Ratio: 6/30/2014	0.0%
**Assumes all employers use pay-as-you-go funding.*	

COVERED PAYROLL

The covered payroll is the total payroll of all current members that are eligible to receive medical benefits upon retirement. The estimated current covered payroll can be seen in the table below.

Covered Payroll (LEOFF 1)	
(Dollars in Thousands)	
Total Payroll	$14,781

UNFUNDED LIABILITY AS A PERCENTAGE OF COVERED PAYROLL

We will look at the unfunded liability as a percentage of covered payroll as a measure of the relative magnitude of the unfunded liability, as shown in the table below. This is an extreme example of a benefit that was not funded over the working lifetime of the members, which leads to a large percent of the covered payroll; in a short time this percentage will be infinite as there will be no covered payroll when all LEOFF 1 members are retired.

Unfunded Liability as a Percent of LEOFF 1 Covered Payroll	
(Dollars in Thousands)	
Unfunded Liability (6/30/2013)	$3,022,004
Total Payroll (LEOFF 1)	$14,781
Unfunded Liability as a % of Covered Payroll	20,446%

The unfunded liability can also be compared to the total payroll of the entire LEOFF system (Plans 1 and 2). This is an alternative measure of the unfunded liability compared to the total police and fire fighter payroll. The table below shows this comparison; it would take a much smaller percentage of this year's total LEOFF payroll to fund the accrued benefits.

Unfunded Liability as a Percent of LEOFF Payroll	
(Dollars in Thousands)	
Unfunded Liability (6/30/2013)	$3,022,004
Total Payroll (LEOFF 1 & 2)	$1,611,620
Unfunded Liability as a % of Covered Payroll	188%

PERCENTAGE OF ARC CONTRIBUTED

The next table shows the estimated percent of the ARC that would be contributed during the year, on a pay-as-you-go basis. Contributions on a pay-as-you-go basis represent a significant portion of the ARC since the opportunity to pre-fund benefits over members' working lifetimes has passed.

Percent of ARC Contributed	
(Dollars in Thousands)	
(6/30/2013 - 6/30/2014) Contributions*	$114,794
ARC	$342,318
Percentage of ARC Contributed*	33.5%
**Estimated.*	

GAIN/(LOSS) ANALYSIS

The results of this report are based on assumptions about future economic and demographic events. It is important to note over time how actual events differed from those assumptions. An event that causes the plan to cost less than was expected is described as a gain to the plan. An event that causes the plan to cost more than was expected is described as a loss to the plan. An analysis of the gains and losses between the prior valuation and this year's valuation shows what events are attributable to the change in expected cost of the plan.

The next table shows the difference between the prior liability and this year's liability by major source.

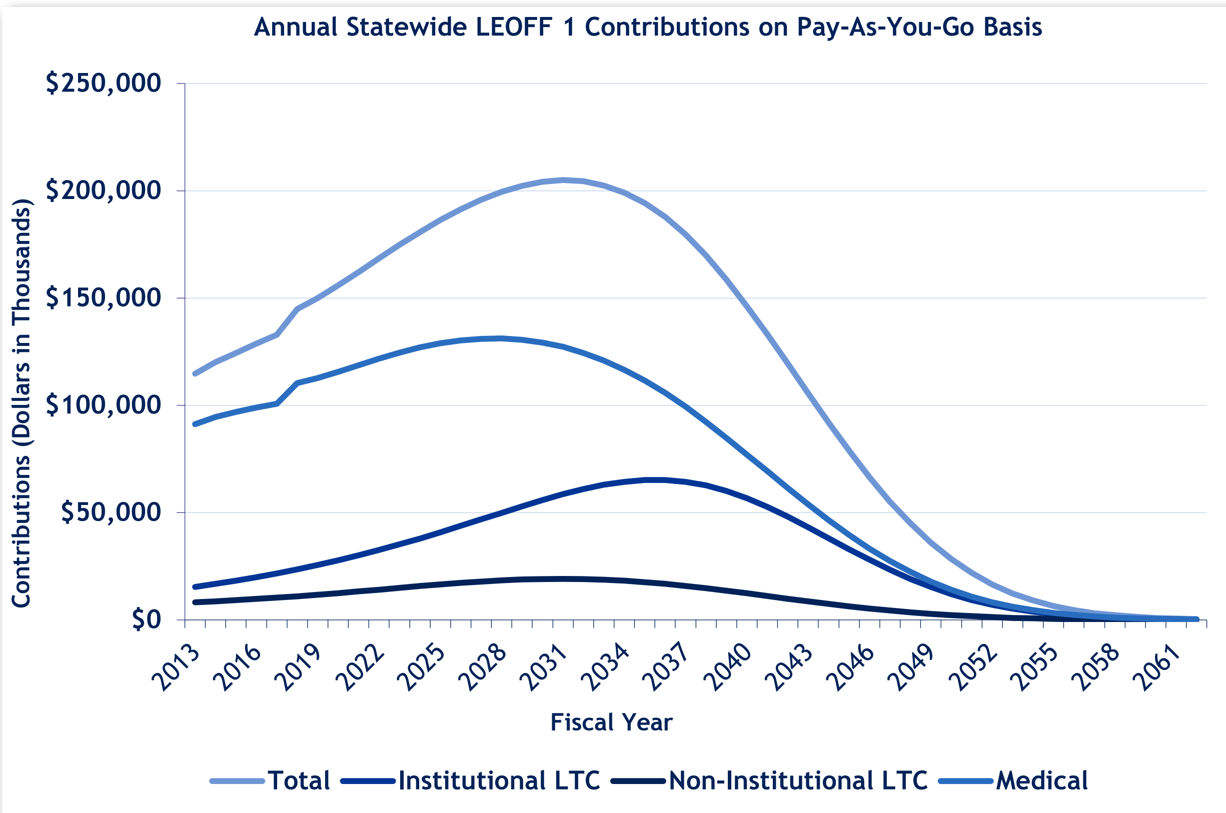
Expected Change in Projected Unit Credit (PUC) Liability	
2011 PUC Liability	$2,513,534
Normal Cost	2,908
Disbursements	(105,631)
Interest	98,508
2012 Expected PUC Liability	2,509,319
Normal Cost	2,080
Disbursements	(109,500)
Interest	98,246
2013 Expected PUC Liability	2,500,145
Expected Change in PUC Liability	**($13,389)**

Change in PUC Liability by Source	
(Dollars in Thousands)	
2011 PUC Liability	**$2,513,534**
Expected Change in Liability	($13,389)
Liability (Gain) / Loss	
Termination	$69
Retirement	(2,502)
Mortality	24,006
Disability	(22)
Other Liabilities	3,420
Total Liability (Gains) / Losses	$24,971
Incremental Changes	
Plan Changes	$0
Method Changes	0
Mortality Assumption Change	499,206
Other Demographic Assumption Changes	(2,318)
Correction Changes	0
Total Incremental Changes	496,887
Total Change	508,470
2013 PUC Liability	**$3,022,004**

PROJECTIONS

It is important to look at the projections of the contributions in order to determine whether the contributions are manageable. Projections allow policy decision makers to determine the best funding policy for the state, local governments, and their constituents while providing investors and stakeholders the knowledge of what lies ahead. Bond rating agencies will look at these projections and consider whether a well-formulated plan is in place, or is necessary.

We will look at what the stream of future benefits/contributions will look like with a pay-as-you-go funding policy for the current participants. Fifty years is a good time frame for these projections since it is enough time to see the pay-as-you-go contributions decrease to zero. As the large number of current members and high medical inflation dominate the early years, the annual contributions increase. As projected medical inflation slows down and the closed population continues to dwindle, the annual benefits/contributions reach a peak and decrease to zero in the long-run. The graph below shows what we expect the contributions to look like under the current pay-as-you-go funding policy. It shows what pieces are attributable to institutional Long-Term Care (LTC), non-institutional LTC, and medical.



III. Sensitivity Analysis

SENSITIVITY ANALYSIS

An actuarial valuation provides a point estimate calculation which is only the start of understanding the GASB 45 liability. This point estimate will only be realized if future economic and demographic experience matches our assumptions. It is equally important to understand what will happen if the economic and demographic experience is different than we assumed. To test the sensitivity of the results to our assumptions, we determined how much the statewide LEOFF 1 liability would change due to small changes in the medical trend assumption.

The medical inflation trend assumption increases initially from the valuation date to the year 2017 when the excise tax is implemented, then gradually declines over time. Although this represents our best estimate, it is reasonable that the actual medical inflation trend could be higher or lower. The table below shows how sensitive the results are to the medical inflation trend at 1 percent higher and lower than expected. Please see the **Appendix** for the detailed medical trend assumptions.

Sensitivity Analysis - Medical Trend			
(Dollars in Thousands)	Low (-1.0%)	Expected*	High (+ 1.0%)
PVFB	**$2,671,594**	**$3,028,897**	**$3,454,905**
GASB 45 Liability	**$2,665,911**	**$3,022,004**	**$3,446,494**
Note: Totals may not agree due to rounding.			
**See the Economic Assumptions section of the Appendices for details.*			

We also prepared sensitivity analysis assuming 0.5 percent higher or lower investment rate of return, and illustrated the impact of the PPACA excise taxes.

Sensitivity Analysis - Discount Rate			
(Dollars in Thousands)	Low (-0.5%)	Expected*	High (+0.5%)
PVFB	**$3,245,213**	**$3,028,897**	**$2,833,230**
GASB 45 Liability	**$3,237,569**	**$3,022,004**	**$2,826,999**
Note: Totals may not agree due to rounding.			
**See the Economic Assumptions section of the Appendices for details.*			

Sensitivity Analysis - Impact of Excise Tax		
(Dollars in Thousands)	Expected*	w/o Excise Tax
PVFB	**$3,028,897**	**$2,832,960**
GASB 45 Liability	**$3,022,004**	**$2,826,736**
Note: Totals may not agree due to rounding.		
**See the Economic Assumptions section of the Appendices for details.*		

IV. Participant Data

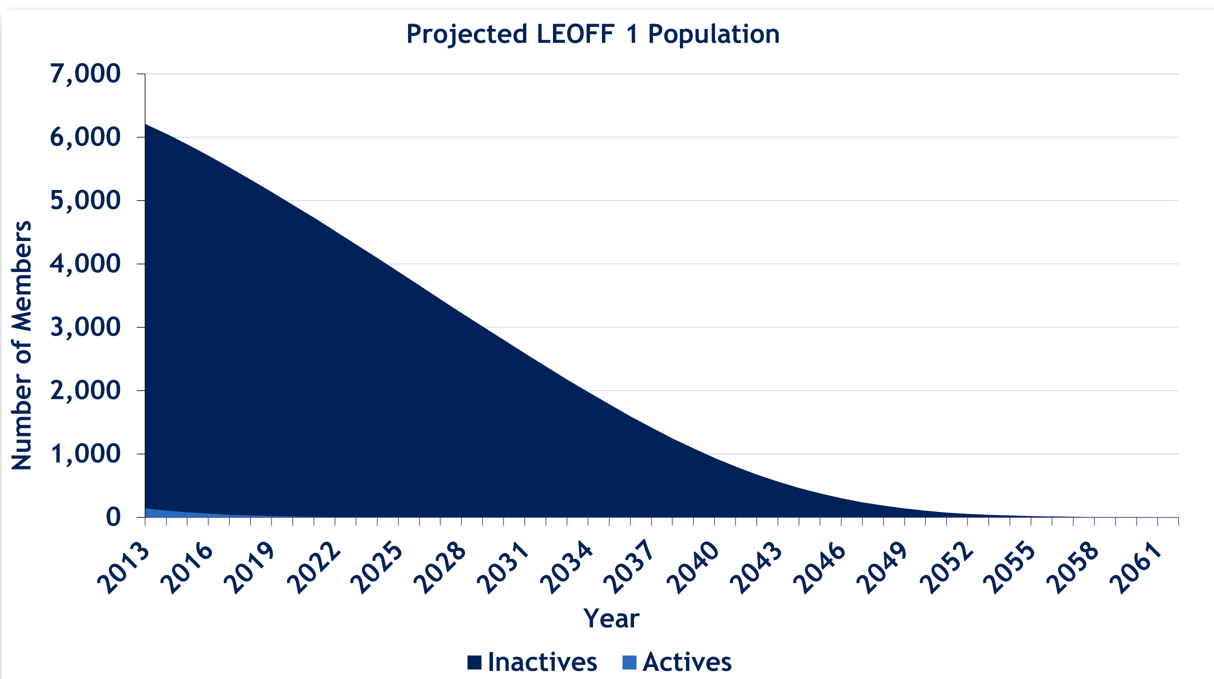
SUMMARY OF PLAN PARTICIPANTS

The law enforcement officers, other than the commissioned officers of the Washington State Patrol, and fire fighters of Washington State have retirement coverage under one of two plans within LEOFF. Members first employed prior to October 1, 1977, are in LEOFF Plan 1. Members first employed on or after October 1, 1977, are in LEOFF Plan 2. All LEOFF 1 members are eligible for employer-provided retiree medical. The table below includes a breakdown of the active and inactive members that are receiving employer-provided retiree medical currently or eligible to receive employer-provided retiree medical in the future. LEOFF 2 members do not receive employer-provided retiree medical coverage.

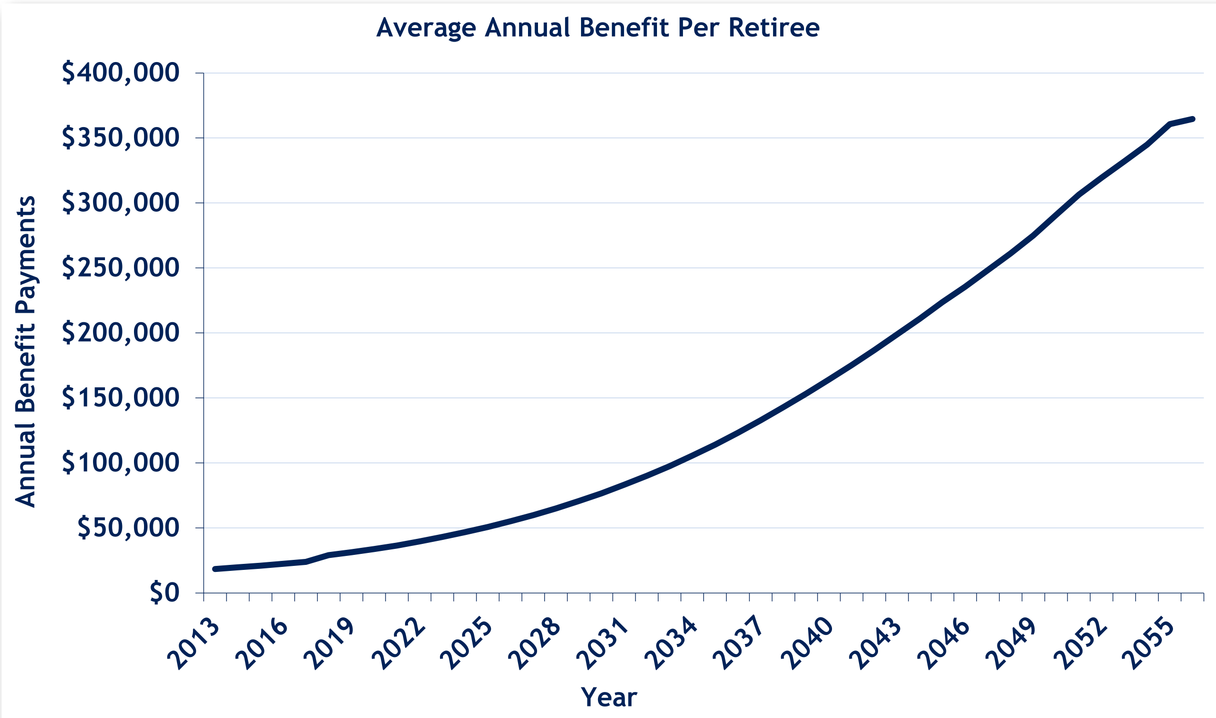
Summary of Plan Participants		
	LEOFF 1	LEOFF 2
Active Members		
Number	143	16,687
Total Salary (thousands)	$14,781	$1,596,839
Average Age	61.9	43.5
Average Service	38.2	14.6
Average Salary	$103,362	$95,694
Inactive Members*		
Number	6,211	3,315
Average Age	70.6	57.8

**Includes retirees and terminated vested members and excludes survivors.*

Since LEOFF 1 is a closed plan, meaning new entrants cannot enter the plan, the population will decline rapidly in future years. The following graph shows projected active and inactive population over the next 50 years.



The next graph shows the average annual benefit payment per retiree in LEOFF 1 over the next fifty years. As you can see, as the LEOFF 1 population ages, the average amount paid per retiree will increase significantly over the next fifty years. Note that a portion of this increase is due to inflation (a dollar in the future is not expected to be worth as much as a dollar today) and current members entering long-term care in the future.



SUMMARY OF EMPLOYERS

Political subdivisions employ LEOFF 1 members. Different political subdivisions employ police officers, firefighters, or both. The table below shows which types of employers employ police officers and fire fighters and the current status of the members they employ. Further detail can be seen in the table on the next page.

Employee Count By Employer Type and Status

Employer Type	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
Police						
First Class City	38	1	831	561	116	1,547
Other City	12	0	395	425	88	920
County	17	0	469	401	98	985
Total Police	**67**	**1**	**1,695**	**1,387**	**302**	**3,452**
Firefighters						
First Class City	38	0	472	1,240	63	1,813
Other City	21	0	295	321	48	685
Fire Protection District	15	0	167	133	26	341
Port	0	0	23	25	11	59
County Subdivision	2	0	2	0	0	4
Total Firefighters	**76**	**0**	**959**	**1,719**	**148**	**2,902**
Total Members	**143**	**1**	**2,654**	**3,106**	**450**	**6,354**

IV. PARTICIPANT DATA

This table shows each political subdivision that employs LEOFF 1 members and groups them by employer type. The table also shows the status of each political subdivision's members.

Employee Count By Employer and Status						
Political Subdivision	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
First Class Cities						
Aberdeen	2		28	33	6	69
Bellingham	5		79	24	9	117
Bremerton	2		27	57	8	94
Everett	3		30	165	8	206
Richland	1		25	33	11	70
Seattle Fire	22		438	281	42	783
Spokane	8	1	293	98	33	433
Tacoma	3		148	299	19	469
Vancouver			62	41	15	118
Yakima	2		70	55	12	139
Seattle Police	28		103	715	16	862
Total First Class Cities	**76**	**1**	**1,303**	**1,801**	**179**	**3,360**
Other Cities						
Buckley			3		1	4
Coupeville				1		1
Elma				3		3
Ephrata			1	3		4
Ferndale			3			3
Goldendale			1	2	1	4
Granite Falls					1	1
Kelso			17	2	4	23
Lacey			5	8	1	14
Long Beach				1	1	2
Longview			37	26	5	68
Marysville			3	7		10
McCleary				2		2
Milton				3		3
Monroe				3	1	4
Olympia	2		34	37	1	74
Port Orchard				3	1	4
Prosser			1	1	1	3
Puyallup			16	21	1	38
Quincy			2			2
Shelton			7	6		13
Snohomish			1	1	2	4
Sultan					1	1
Tekoa					1	1
Tumwater			10	6		16

Political Subdivision	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
Other Cities - Continued						
Union Gap	1			1	1	3
Woodland			1			1
Yelm				1		1
Anacortes	1		7	8	2	18
Arlington			3	3		6
Auburn			19	29	6	54
Bellevue	9		67	56	6	138
Black Diamond			1		1	2
Blaine	1		3	1		5
Bothell			4	14	2	20
Burlington			1	2	1	4
Camas			9	1	3	13
Castle Rock					2	2
Centralia			14	11	1	26
Chehalis			15	3		18
Chelan			2	3		5
Cheney			5	3	1	9
Chewelah			1	1		2
Clarkston			5	6	1	12
Colfax			1		1	2
College Place	1					1
Colville			2			2
Coulee Dam					1	1
Darrington					1	1
Dayton			2	1		3
Des Moines			5		1	6
Edmonds			11	17	2	30
Ellensburg			17	6	3	26
Enumclaw			1	6		7
Fircrest			1			1
Grand Coulee	1					1
Grandview			7	1		8
Hoquiam			12	20	1	33
Issaquah			2	7		9
Kennewick	1		9	31	6	47
Kent			24	38	6	68
Kirkland	1		12	21	3	37
Lake Forest Park				2		2
Lynden	1		1		1	3
Lynnwood	1		23	25		49

Table title: Employee Count By Employer and Status

Political Subdivision	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
Other Cities - Continued						
Medical Lake				1		1
Medina			1		1	2
Mercer Island			18	19	1	38
Montesano				3		3
Moses Lake			10	7	1	18
Mount Vernon	3		13	7	2	25
Mountlake Terrace			4	22	2	28
Mukilteo			1		1	2
Normandy Park				1		1
Oak Harbor	1		3		1	5
Okanogan				1		1
Omak			2	1	1	4
Oroville				1		1
Othello			4	2	2	8
Pasco	2		19	17	7	45
Port Angeles			10	11	2	23
Port Townsend			4	5	1	10
Poulsbo				2		2
Pullman	1		7	8	1	17
Raymond			4	1		5
Redmond	2		9	17	3	31
Renton	2		38	53	1	94
Ritzville						0
Ruston					1	1
Sedro Woolley			3	3	1	7
Selah			1	2		3
Sequim			1			1
Snoqualmie			1	1		2
Steilacoom			1			1
Sumas						0
Sumner			4	3	1	8
Sunnyside			6	5	2	13
Tonasket				1		1
Toppenish			3	4	2	9
Tukwila	1		16	21	3	41
Walla Walla			34	18	10	62
Warden			1			1
Washougal			2			2
Wenatchee	1		16	18	2	37
Westport					1	1

Table: Employee Count By Employer and Status

Employee Count By Employer and Status						
Political Subdivision	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
Other Cities - Continued						
White Salmon			1	1	1	3
Cle Elum			1			1
Newport				1		1
Algona				1		1
Battle Ground			1	1	1	3
Bonney Lake			1			1
Brier			1	1		2
Clyde Hill			1	2		3
East Wenatchee			1	1	1	3
Forks			1	2		3
Gig Harbor			4			4
Granger				2		2
Palouse			1			1
Pomeroy					1	1
Roy				1		1
Soap Lake					1	1
South Bend			1	1		2
Wapato			2	2		4
Tenino				1		1
Bainbridge Island			2		1	3
Fife			1	4	1	6
Brewster			1	3		4
West Richland			2	1		3
Concrete				1	1	2
Stanwood				1		1
Ocean Shores			2	5	2	9
Napavine			1			1
Yacolt			1			1
Mill Creek				1		1
Everson						0
Kettle Falls						0
SeaTac				4		4
Total Other Cities	33	0	690	746	136	1,605

Employee Count By Employer and Status						
Political Subdivision	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
Counties						
Adams	1		1	2		4
Asotin			1			1
Benton			7	7	4	18
Chelan			10	14		24
Clallam			4	6		10
Clark	2		38	12	3	55
Columbia			1			1
Cowlitz			16	3	4	23
Douglas			4	1		5
Ferry			1			1
Franklin	2		1	7		10
Grant			9	8	2	19
Grays Harbor	1		8	9	2	20
Island			3	4	3	10
Jefferson			4	3		7
King	3		112	147	32	294
Kitsap			15	20	3	38
Kittitas			3	3	2	8
Klickitat	1		3	2	3	9
Lewis			18	5	2	25
Lincoln			2	2	1	5
Mason			6	3	1	10
Okanogan			2	4	1	7
Pacific			1	2		3
Pend Oreille			1	1		2
Pierce	1		48	42	7	98
San Juan			2			2
Skagit			8	2	3	13
Skamania			7			7
Snohomish	2		25	31	9	67
Spokane			64	17	4	85
Stevens			4	2	1	7
Thurston	1		7	11	1	20
Wahkiakum			1			1
Walla Walla	1		4	2	2	9
Whatcom	1		14	5	2	22
Whitman			2	2	1	5
Yakima	1		12	22	5	40
Total Counties	**17**	**0**	**469**	**401**	**98**	**985**

Employee Count By Employer and Status						
Political Subdivision	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
Fire Protection Districts						
Chelan Co Fpd 01			3	2		5
Clark Co Fpd 05			3	1	2	6
Clark Co Fpd 06	1		3	4	3	11
Douglas Co Fpd 02	1		4		1	6
King Co Fpd 01			1			1
King Co Fpd 02				7		7
King Co Fpd 04			5	5	1	11
King Co Fpd 10			5	3	1	9
North Highline Fire District			3	5	2	10
King Co Fpd 16			2	4	1	7
King Co Fpd 20			1			1
King Co Fpd 24						0
King Co Fpd 25			1	2		3
King Co Fpd 26				1		1
King Co Fpd 32			1			1
King Co Fpd 37				1		1
Federal Way Fire Dept	3		13	3	1	20
King Co Fpd 40			1	2		3
King Co Fpd 43			1	1	1	3
Bainbridge Island Fire Dept				3		3
Kitsap Co Fpd 07			4	3	1	8
Kittitas Co Fpd 02			2	1		3
Mason Co Fpd 02				1	1	2
Pierce Co Fpd 02			16	6	1	23
Pierce Co Fpd 03	3		8	3		14
Pierce Co Fpd 05			3	1		4
Pierce Co Fpd 06	1		5	4		10
Pierce Co Fpd 07				1		1
Pierce Co Fpd 09			2	2		4
Snohomish Co Fpd 01	4		4	13	1	22
Spokane Co Fpd 01			45	21	3	69
Spokane Co Fpd 03				1		1
Spokane Co Fpd 09			1	3	2	6
Thurston Co Fpd 03			3	5	1	9
Thurston Co Fpd 09			1	3	1	5
Walla Walla Co Fpd 04				1		1
Yakima Co Fpd 05			4	1		5
Cowlitz Co Fpd 02				1		1
Grant Co Fpd 03			2	1		3
Grant Co Fpd 05						0

Employee Count By Employer and Status						
Political Subdivision	Active	Terminated Vested	Service Retiree	Duty Disability	Non-Duty Disability	Total
Fire Protection Districts - Continued						
Lewis Co Fpd 12			2	1	1	4
Pierce Co Fpd 10				1		1
Pierce Co Fpd 21				2		2
Marysville Fire District 12	1		1	2		4
Kitsap Co Fpd 01			3	1	1	5
Woodinville Fire-Life Saf			2	1		3
Clark Co Fpd 03			2	1		3
Clark Co Fpd 04			1			1
Clark Co Fpd 11			1			1
Whatcom Co Fpd 13				1		1
Whatcom Co Fpd 07			1			1
Snohomish Co Fpd 11			1	3		4
Mason Co Fpd 05			1			1
Benton Co Fpd 01				1		1
Thurston Co Fpd 11			1			1
Snohomish Co Fpd 04				1		1
Spokane Co Fpd 04				1		1
Whatcom Co Fpd 03			1			1
Missing Dept Code	1		3	1		5
Total Fire Protection Districts	15	0	167	133	26	341
Ports						
Moses Lake			2		1	3
Seattle			13	14	8	35
Walla Walla Regional Airport			2			2
Spokane Intl Airport			5	8	1	14
Snohomish Co Airport			1	3	1	5
Total Ports	0	0	23	25	11	59
County Subdivision						
Spokane Intl Airport	1		2			3
Kent Regional Fire Dept	1					1
Total County Subdivision	2	0	2	0	0	4
Total - All Departments	143	1	2,654	3,106	450	6,354

V. Appendices

ACTUARIAL METHODS

The Projected Unit Credit (PUC) cost method was used to calculate the plan's Actuarial Accrued Liability (AAL), normal cost, and funded status and is consistent with governmental accounting standards. Currently, there is no asset valuation method since there are no statewide invested assets in an irrevocable, dedicated, and protected trust.

The Unfunded Actuarial Accrued Liability (UAAL) is the difference between the AAL and the Assets, of which there are none. As a result, in this case the AAL is equal to the UAAL. The UAAL is amortized over a closed fifteen-year period as a level dollar amount.

ECONOMIC ASSUMPTIONS

The economic assumptions are used in the actuarial valuation to determine liabilities and contributions in the future. For presentation purposes, they are broken into non-medical and medical economic assumptions. The non-medical economic assumptions specify how we expect membership and salaries to grow, and the interest discount rate we used in order to discount future cash flows into today's dollars; besides the interest discount rate, these assumptions are consistent with the *June 30, 2013, Actuarial Valuation Report* (AVR).

Non-Medical Economic Assumptions	
	LEOFF 1
Annual Growth in Membership	0.00%
Investment Return Assumption (Discount Rate)[1]	4.00%
Inflation[2]	3.00%
General Salary Increases (due to inflation)[3]	3.75%

[1] *Annual rate, compounded annually.*
[2] *Based on the CPI: Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items.*
[3] *Excludes longevity, merit, or step increases that usually apply to members in the early part of their careers.*

The interest discount rate is chosen based on the expected long-term yield of assets expected to finance the payment of benefits. Since we assumed the liabilities are funded on a pay-as-you-go basis, the benefit payments are effectively paid from each LEOFF 1 employer's "checking account." These LEOFF 1 employer accounts are likely invested in short term products such as repurchase agreements, FNMA instruments, and U.S. Treasury obligations. We assumed a long-term yield of 4 percent for this valuation.

The medical economic assumptions specify how we expect the benefits to change in the future. We relied on health care actuaries at Milliman to determine the medical trend rates in 2012 and beyond.

Medical Inflation Trend Over Age 65 w/ Excise Tax		
	Medical	Long-Term Care
2014	6.2%	4.75%
2015	5.8%	4.75%
2016	5.7%	4.75%
2017	12.9%	4.75%
2018	6.3%	4.75%
2019	6.5%	4.75%
2020	6.6%	4.75%
2021-22	6.5%	4.75%
2023-24	6.4%	4.75%
2025-27	6.3%	4.75%
2028-30	6.2%	4.75%
2031-35	6.1%	4.75%
2036	5.9%	4.75%
2037	5.8%	4.75%
2038-39	5.7%	4.75%
2040-43	5.6%	4.75%
2044-48	5.5%	4.75%
2049-56	5.4%	4.75%
2057-65	5.3%	4.75%
2066-73	5.2%	4.75%
2074	5.1%	4.75%
2075-76	5.0%	4.75%
2077-78	4.9%	4.75%
2079-80	4.8%	4.75%
2081-88	4.7%	4.75%
2089+	4.6%	4.75%

Medical Inflation Trend Over Age 65 - Sensitivity w/ Excise Tax			
	+1%	Expected	-1%
2014	7.2%	6.2%	5.2%
2015	6.8%	5.8%	4.8%
2016	6.7%	5.7%	4.7%
2017	13.9%	12.9%	11.9%
2018	7.3%	6.3%	5.3%
2019	7.5%	6.5%	5.5%
2020	7.6%	6.6%	5.6%
2021-22	7.5%	6.5%	5.5%
2023-24	7.4%	6.4%	5.4%
2025-27	7.3%	6.3%	5.3%
2028-30	7.2%	6.2%	5.2%
2031-35	7.1%	6.1%	5.1%
2036	6.9%	5.9%	4.9%
2037	6.8%	5.8%	4.8%
2038-39	6.7%	5.7%	4.7%
2040-43	6.6%	5.6%	4.6%
2044-48	6.5%	5.5%	4.5%
2049-56	6.4%	5.4%	4.4%
2057-65	6.3%	5.3%	4.3%
2066-73	6.2%	5.2%	4.2%
2074	6.1%	5.1%	4.1%
2075-76	6.0%	5.0%	4.0%
2077-78	5.9%	4.9%	3.9%
2079-80	5.8%	4.8%	3.8%
2081-88	5.7%	4.7%	3.7%
2089+	5.6%	4.6%	3.6%

Medical Inflation Trend Under Age 65 w/ Excise Tax		
	Medical	Long-Term Care
2014	6.2%	4.75%
2015	5.8%	4.75%
2016	5.7%	4.75%
2017	24.7%	4.75%
2018	6.2%	4.75%

Medical Inflation Trend Under Age 65 - Sensitivity w/ Excise Tax			
	+1%	Expected	-1%
2014	7.2%	6.2%	5.2%
2015	6.8%	5.8%	4.8%
2016	6.7%	5.7%	4.7%
2017	25.7%	24.7%	23.7%
2018	7.2%	6.2%	5.2%

Medical Inflation Trend w/o Excise Tax	
2014	6.2%
2015	5.8%
2016-23	5.7%
2024-34	5.6%
2035	5.5%
2036-37	5.4%
2038-40	5.3%
2041-48	5.2%
2049-67	5.1%
2068-74	5.0%
2075-76	4.9%
2077-78	4.8%
2079-80	4.7%
2081+	4.6%

The assumptions in the tables above include the excise tax. For comparison purposes, we provided the medical inflation trend without the excise tax on the left. The **Sensitivity Analysis** section of this report details the impact on the results.

We relied on Milliman health care actuaries to determine the medical claims costs in 2012. They provided us with Medicare and non-Medicare medical costs by age. Claims costs for sample ages are shown in the table below and represent the average claims cost for each age. Due to Medicare subsidies, younger retirees can cost more than older retirees. These claims costs have been projected forward from 2012 to 2014 using assumed medical inflation from the prior actuarial valuation.

Annual Medical Cost By Age		
Age	Non-Medicare	Medicare
57	$14,696	N/A
62	$18,865	N/A
67	N/A	$12,592
72	N/A	$13,957
77	N/A	$15,106
82	N/A	$15,863
87	N/A	$16,241

In addition, Milliman health care actuaries also developed long-term care assumptions in 2012. The two types of long-term care are:

1. Institutional. Care provided in a nursing home or wing of a hospital designed to provide nursing care services, including:
    a. Skilled – includes nursing and rehabilitation services that can only be performed by skilled medical personnel; must be under orders of a physician and provided on a 24-hour basis.
    b. Intermediate – includes continuous treatment not meeting all the requirements for skilled care.
    c. Custodial – includes assistance in carrying out daily living activities.
2. Non institutional. Includes all home health, assisted living facility, and adult day-care services.

The four assumptions dealing with long-term care are the annual cost, the incidence rate (likelihood of entering long-term care), the length of stay, and the inflation rate (previously mentioned). The three tables below show the expected cost for long-term care, the incidence rates, and the expected length of stay. These tables can be interpreted as follows: A 62-year-old LEOFF 1 member has a 0.27 percent chance of entering institutional care this year. If the member enters institutional care this year, the member is expected to stay 17 months and it will cost $8,127 per month, increased by 4.75 percent per year for inflation in the second year. These long-term care costs are projected forward at 4.75 percent per year to 2014.

Monthly Long-Term Care Costs

	LTC
Institutional	$8,127
Non Institutional	$4,983

Long-Term Care Incidence Rates

Age	Institutional Care	Non Institutional
45	0.09%	0.29%
55	0.19%	0.56%
62	0.27%	0.95%
67	0.49%	1.35%
72	0.98%	2.06%
77	2.10%	3.74%
82	3.88%	5.72%
87	7.67%	7.77%
92	13.88%	9.26%
97	18.15%	9.67%

Long-Term Care Duration *(Months)*

Age	Institutional Care	Non Institutional
45	22	20
55	21	16
62	17	15
67	18	12
72	20	10
77	21	11
82	21	11
87	21	10
92	19	9
97	16	9

DEMOGRAPHIC ASSUMPTIONS

Demographic assumptions include rates of decrement (retirement, termination, disability, and mortality) as well as participation percentage and Medicare coverage. The rates of decrement are the same as those used in the *June 30, 2013, AVR for LEOFF 1*.

Participation percentage refers to how many current members will choose to use the free medical coverage. Medicare coverage refers to how many retirees will join Medicare at age 65; the medical assumptions developed by Milliman in 2012 assumed 100 percent. We did not change these assumptions for this valuation. These assumptions can be seen in the next table.

Demographic Assumptions	
	LEOFF 1
Participation Percentage	100%
Medicare Coverage	100%

SUMMARY OF PLAN PROVISIONS

Retirees' access to retiree medical depends on meeting the retirement or disability eligibility of LEOFF 1, as shown in the table below.

Retirement Eligibility By System		
System	Retirement Eligibility	
	Years Of Service	Age
Normal Retirement	5	50
Disability*	5	Any

**Upon approval by local disability board.*

Each disability board has the discretionary power to determine which costs they will reimburse and which costs they will not reimburse. However, there is a list of minimum services for which they must reimburse the retiree.

- Hospital board and room not to exceed semi-private, unless condition requires otherwise.
- Hospital services, other than board and room.

Fees for:

- Licensed physicians or surgeons.
- Licensed osteopaths.
- Licensed chiropractors.
- Charges of a registered graduate nurse.
- Physician-prescribed drugs and medications.
- X-ray, radium, and radioactive isotopes therapy.
- Anesthesia and oxygen.
- Rental of durable medical and surgical equipment.
- Artificial limbs and eyes; and casts, splints, and trusses.
- Professional ambulance services to transport to or from a hospital.
- Dental charges resulting from accidental injury to the teeth if treatment starts on the same day.
- Nursing home confinement or hospital extended care facility.
- Physical therapy by a registered physical therapist.
- Blood transfusions.
- Licensed optometric examination.

The list above represents a summary and does not determine the benefits for each individual. Ultimately, each disability board makes those decisions.

VI. Glossary

ACTIVES
Members who are currently employed.

ACTUARIAL ACCRUED LIABILITY (AAL)
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 GAIN OR LOSS
Experience, from one year to the next, which differs from that assumed will result in an actuarial gain or loss. For example, an actuarial gain would occur if less members retired than assumed.

ACTUARIAL VALUE OF ASSETS
The value of pension plan investments and other property used by the actuary for the purpose of an actuarial valuation (sometimes referred to as valuation assets). It is common for actuaries to select an actuarial valuation method that smoothes the effects of short term volatility in the market value of assets.

ANNUAL REQUIRED CONTRIBUTIONS (ARC)
The annual amount required under the actuarial cost method to fully fund the liability. It is made up of the normal cost plus the amortization of the unfunded past liability. In other words, it is the amount of liability that will be earned in the next year, plus a portion of the unpaid liability that has already been earned.

ACTUARIAL VALUATION REPORT (AVR)
Created annually to monitor the State's pension plans.

DECREMENT
The mode in which a member leaves employment. Examples include retirement, termination, disability, or death.

FUNDED RATIO
The ratio of a plan's assets to its accrued liabilities. There are several acceptable methods of measuring a plan's assets and liabilities. In financial reporting, funded status is reported using consistent measures by all governmental entities. According to GASB, one acceptable method of calculating the funded ratio is to divide the actuarial value of assets by the actuarial accrued liability calculated under PUC (see below).

GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)
Refers to the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting to the public.

INACTIVES
Retired members or terminated members entitled to a benefit.

NET OPEB OBLIGATION (NOO)
Refers to the GASB disclosure requirement on the balance sheet. It is the cumulative difference between the annual OPEB cost and the actual contributions.

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.

OTHER POST-EMPLOYMENT BENEFITS (OPEB)
Refers to benefits offered to retirees besides a pension and includes, among other benefits, prescription drug insurance, dental insurance, and long-term care insurance.

PRESENT VALUE OF FULLY PROJECTED BENEFITS (PVFB)

Computed by projecting the total future benefit cash flows from the plan, using actuarial assumptions (i.e., probability of death, retirement, salary increases, etc.), and discounting the cash flows to the valuation date using the assumed valuation interest rate.

PROJECTED UNIT CREDIT (PUC) FUNDING METHOD

The PUC funding method is a standard actuarial funding method. The annual cost of benefits under PUC is comprised of two components:

- Normal cost; plus,
- Amortization of the unfunded actuarial accrued liability.

The PUC normal cost is the estimated present value of projected benefits to be earned in the current plan year.

UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

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

NOTES

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