

WASHINGTON STATE

Law Enforcement Officers' and Fire Fighters' Plan 2 Retirement Board



2006 Actuarial Valuation Report

Report Prepared by

Office of the State Actuary

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Table of Contents

Letter of Introduction

Section 1 - Summary of Key Results	1-6
Contribution Rates.....	3
Contribution Rate-Setting Cycle	3
Funding Policy.....	4
Comments on 2006 Results.....	4
Actuarial Liabilities.....	5
Assets	5
Funded Status.....	6
Participant Data	6
Key Assumptions	6
Section 2 - Actuarial Exhibits	7-20
Actuarial Certification.....	9
Contribution Rates.....	11
Actuarial Liabilities.....	13
Plan Assets	14
Funded Status.....	16
Actuarial Gains/Losses	17
Effect of Plan, Assumption, and Method Changes.....	19
Section 3 - Participant Data	21-24
Overview of System Membership.....	23
Summary of Plan Participants.....	24
Section 4 - Appendices	25-45
Actuarial Assumptions and Methods.....	27
Summary of Plan Provisions	39
Age/Service Distribution.....	41
Age/Years Retired Distribution.....	42
Historical Data	43
Glossary	44



Office of the State Actuary

"Securing tomorrow's pensions today."

**Law Enforcement Officers' and Fire Fighters'
Retirement System Plan 2
Actuarial Valuation Report
As of September 30, 2006
October 2007**

As required under Chapter 41.45 RCW, this report documents the results of an actuarial valuation of the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2 (LEOFF 2).

The primary purpose of this valuation is to determine contribution requirements for LEOFF 2 as of the valuation date September 30, 2006. The report is organized in the following four sections:

- ❖ Summary of Key Results
- ❖ Actuarial Exhibits
- ❖ Participant Data
- ❖ Appendices

The Summary of Key Results section provides a high-level summary of the valuation results for the LEOFF 2. The remaining sections of the report provide detailed actuarial asset and liability information. The Appendices provide a summary of the principal actuarial assumptions and methods, summary of the major plan provisions, age-service distributions, age-years retired distributions, historical data, and a glossary of actuarial terms used throughout this report.

We encourage you to submit any questions you might have concerning this report to our regular address or our e-mail address at actuary.state@leg.wa.gov. We also invite you to visit our website, at the address below, for further information regarding the actuarial funding of the Washington State retirement systems.

Sincerely,

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

Summary of Key Results



Summary of Key Results

Contribution Rates

Member and employer contribution rates determined from the actuarial valuation are expressed as a percentage of salary. In December of 2004, the Law Enforcement Officers' and Fire Fighters' (LEOFF) Plan 2 Retirement Board (the Board) adopted contribution rate increases that will be "phased-in" over the 2007-09 biennium. The first summary table below shows contribution rates before completion of the phase-in along with comparable rates from the previous valuation. The table that follows includes the adjustments required to complete the final year of the phase-in for the 2007-09 biennium. See the Actuarial Exhibits section of this report for the development of these rates.

Contribution Rates - Before Completion of Phase-In		
	2006	2005
Member	7.77%	8.10%
Employer*	4.66%	4.86%
Total State	3.11%	3.24%

*Excludes administrative expense rate.

Contribution Rates - To Complete Phase-In			
	Member	Total Employer*	Total State*
	2008-2009	2008-2009	2008-2009
Valuation Rates	7.77%	4.66%	3.11%
Required Phase-In	0.15%	0.09%	0.06%
Rate After Phase-In	7.92%	4.75%	3.17%

*The state pays 20% of the total normal cost; the employer pays 30% of the total normal cost.

Contribution Rate-Setting Cycle

Under current Washington State law, in July of even-numbered years, the Board reviews the basic contribution rates recommended by the Board-retained actuary based on an actuarial valuation performed on asset, participant and plan information compiled in odd-numbered years. The Board adopts contribution rates for LEOFF Plan 2 as provided under RCW 41.26.720(1)(a) and the rates remain in place for the ensuing biennium, subject to revision by the Legislature.

RCW 41.45.070 requires that a temporary and supplemental contribution rate increase be charged to fund the cost of benefit enhancements that are enacted following the adoption of the basic rates by the Board. Supplemental contribution rates are included in the basic rates at the beginning of the next contribution rate-setting cycle.

Summary of Key Results

Funding Policy

The funding policy of the Legislature is contained in Chapter 41.45 RCW - Actuarial Funding of State Retirement Systems. RCW 41.45.010 outlines the intent to achieve the following goals:

- To provide a dependable and systematic process for funding the benefits to members and retirees of the Washington State Retirement Systems.
- To continue to fully fund the LEOFF Plan 2 as provided by law.
- To establish long-term employer contribution rates that will remain a relatively predictable proportion of the future state budgets.
- To fund, to the extent feasible, benefit increases over the working lives of those members so that the cost of those benefits are paid by the taxpayers who receive the benefit of those members' service.

The Board has adopted a four-year "phase-in" contribution rate schedule for 2005-2009. Beginning July 1, 2009, the rates adopted by the Board shall be no less than 90 percent of the normal cost calculated under the entry age normal cost method.

Comments on 2006 Results

Short-term actuarial gains or losses occur when actual economic and demographic experience differs from what was assumed in the valuation. Actuarial gains will reduce contribution rates; whereas, actuarial losses will increase contribution rates. Under a reasonable set of actuarial assumptions and methods, actuarial gains and losses will offset over long-term experience periods.

Significant changes in plan provisions or actuarial assumptions and methods will also have an impact on contribution rates. Significant factors that impacted the results of this valuation include the following:

- The actual rate of investment return for the plan year was above the assumed rate of 8 percent. Actual investment return on the market value of assets was 15.76 percent (time-weighted). The actual rate of investment return of 10.80 percent on the actuarial value of assets for the plan year was also greater than the assumed rate of 8 percent.
- Actual salary growth was below the assumed growth for the period.

Summary of Key Results

Please see the table, Actuarial Gains/Losses, in the Actuarial Exhibits section of this report for detailed gain and loss information.

Actuarial Liabilities

A summary of key measures of actuarial liability is shown below along with comparable information from last year's valuation. See the Actuarial Exhibits section of this report for additional information on the plan's actuarial liability. See the Glossary for a brief explanation of the actuarial terms.

Actuarial Liabilities		
<i>(Dollars in millions)</i>	2006	2005
Present Value of Fully Projected Benefits	\$6,004	\$5,462
Unfunded Actuarial Accrued Liability	N/A	N/A
Present Value of Credited Projected Benefits	3,323	2,932
Valuation Interest Rate	8.00%	8.00%

Assets

The market value of assets and actuarial (or smoothed) value of assets are shown below along with approximate rates of investment return. See the Actuarial Exhibits section of this report for additional information on the plan's assets as well as the development of the actuarial value of assets.

Assets		
<i>(Dollars in millions)</i>	2006	2005
Market Value of Assets	\$4,339	\$3,614
Actuarial Value of Assets	3,844	3,329
Contributions*	168	120
Disbursements	23	18
Investment Return	577	528
Other**	2	1
Rate of Return on Assets***	15.76%	17.53%

*Employee and Employer.

**Includes transfers, restorations, payables, etc.

***This is the time-weighted rate of return on the Market Value of Assets. Returns for 1993-2005 have been restated. The Actuarial Value of Assets is used in determining contribution rates.

Summary of Key Results

Funded Status

Several key measures of the plan's funded status are displayed below. The Present Value of Credited Projected Benefits was calculated under the Projected Unit Credit (PUC) cost method and is consistent with governmental accounting standards for the disclosure of a plan's funded status. The PUC cost method is not used to determine contribution requirements for LEOFF Plan 2. Please see the Glossary for an explanation of PUC.

Funded Status		
<i>(Dollars in millions)</i>	2006	2005
a. Present Value of Credited Projected Benefits	\$3,323	\$2,932
b. Actuarial Value of Assets	3,844	3,329
c. Unfunded Liability (a-b)	(521)	(397)
d. Credited Projected Funded Ratio (b/a)	116%	114%

Totals may not agree due to rounding.

Participant Data

Participant data used in the actuarial valuation for the plan year ending September 30, 2006, are summarized below along with comparable information from last year's valuation. See the Participant Data section of this report for additional information on the plan's participant data.

Participant Data		
	2006	2005
Active Members		
Number	15,718	15,168
Total Salaries (in millions)	\$1,172	\$1,092
Average Annual Salary	\$74,562	\$72,015
Average Attained Age	40.8	40.5
Average Service	11.9	11.7
Retirees and Beneficiaries		
Number	779	574
Average Annual Benefit	\$22,321	\$20,012
Terminated Members		
Number Vested	597	570
Number "Non-Vested"	1,362	1,285

Key Assumptions

Key economic assumptions used in the actuarial valuation are displayed below. These assumptions were unchanged from the previous year's valuation. See the Appendix - Actuarial Assumptions and Methods for a detailed listing of the actuarial assumptions used in this valuation.

Key Assumptions	
Valuation Interest Rate	8.00%
Salary Increase	4.50%
Inflation	3.50%
Growth in Membership	1.25%

Actuarial Exhibits



Actuarial Certification

This report documents the results of an actuarial valuation of the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2 as defined under Chapter 41.26 of the Revised Code of Washington. The primary purpose of this valuation is to determine contribution requirements for the retirement plan listed above as of the valuation date September 30, 2006, and should not be used for other purposes.

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

The assumptions used in the valuation for investment return, inflation, salary, and membership growth were prescribed by the Legislature in 2001. Demographic assumptions were developed from the 1995-2000 experience study performed by the Office of the State Actuary. The Legislature was responsible for the selection of the actuarial cost and asset valuation methods. In my opinion, all methods, assumptions, and calculations are reasonable and are in conformity with generally accepted actuarial principles and standards as of the date of this publication.

The Department of Retirement Systems provided member and beneficiary data. We have checked the data for reasonableness as appropriate based on the purpose of the valuation. The Washington State Investment Board, Department of Retirement Systems, and the State Treasurer provided financial and asset information. An audit of the financial and participant data was not performed. We have relied on all the information provided as complete and accurate. In my opinion, this information is adequate and substantially complete for purposes of this valuation.


The asset smoothing method adopted during the 2003 legislative session (Chapter 11, Laws of 2003, E1) was intended to address the volatility of contribution rates under the aggregate funding method when used in combination with the existing asset allocation policy. The combination of the current asset smoothing method with any other funding method or asset allocation policy may not be appropriate.

Future improvement in assumed mortality represents a material liability that has been excluded from the results of this valuation. The LEOFF Plan 2 Board (the Board) will

Actuarial Exhibits

review the projected mortality assumption change along with all other demographic assumptions during the next six-year experience study.

The undersigned, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

A handwritten signature in black ink, appearing to read "Matthew M. Smith". The signature is written in a cursive style with a horizontal line underneath it.

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

Contribution Rates

Member and Employer Rate Summary - Before Completion of Phase-In

	2006	2005
Member	7.77%	8.10%
Employer*	4.66%	4.86%
State (Normal Cost)	3.11%	3.24%
State (Plan 1 UAAL)	0.00%	0.00%
Total State	3.11%	3.24%

*Excludes administrative expense rate.

Development of Employer/State Rates - Before Completion of Phase-In

a. Total Normal Cost	15.54%
b. Employee Normal Cost	7.77%
c. Employer Contribution (a-b)	7.77%
d. Cost to Amortize UAAL	0.00%
e. Total Employer Contribution Rate (c+d)*	4.66%

*The state pays 20% of the total normal cost for LEOFF 2.
This reduces the total employer contribution rate from 7.77% to 4.66%.

Development of Normal Cost Rates - Before Completion of Phase-In

(Dollars in millions)

a. Actuarial Present Value of Fully Projected Benefits	\$5,991
b. Valuation Assets	3,844
c. Unfunded Fully Projected Benefits (a - b)	2,148
d. Future Contribution Adjustment	0
e. Adjusted Unfunded (c - d)	\$2,148

Present Value of Projected Salaries to Current Members (PVS)

f. Plan 1 PVS	N/A
g. Plan 2 PVS	13,900
h. Weighted PVS (f + g)	\$13,900
i. Preliminary Normal Cost (e /h)	15.46%
j. Change In Plan Provisions (Laws of 2007)	0.08%
k. Total Normal Cost (i + j)	15.54%
l. 50% Normal Cost (k x 50%)	7.77%
m. Employee Contribution Rate (l)	7.77%
n. Employer Contribution Rate (k x 30%)	4.66%
o. State Contribution Rate (k x 20%)	3.11%
p. Total Contribution Rate (m + n + o)	15.54%

Note: Totals may not agree due to rounding.

Calculation of Normal Cost Rates - To Complete Phase-In*

	Member*	Total Employer**	Total State**
	2008-2009	2008-2009	2008-2009
Valuation Rates	7.77%	4.66%	3.11%
Required Phase-In*	0.15%	0.09%	0.06%
Rate After Phase-In*	7.92%	4.75%	3.17%

*LEOFF 2 phase-in adjustments were adopted by the LEOFF 2 Board December 9, 2004.

**The state pays 20% of the total normal cost for LEOFF 2; the employer pays 30% of the normal cost.

**Amortization of the Plan 1 Unfunded Actuarial
Accrued Liability (UAAL)**

<i>(Dollars in millions)</i>	LEOFF 1
a. Actuarial Present Value of Fully Projected Benefits	\$4,316
b. Valuation Assets	5,018
c. Actuarial Present Value of Future Normal Costs	0
d. UAAL (a - b - c)	(702)
e. Expected UAAL Contributions to 2009	0
f. Remaining UAAL (d - e)	(\$702)
g. Amortization Date	6/30/2024
h. Present Value of Projected Salaries beyond 2009	\$15,559
i. Preliminary Rate (f/g)*	(4.51%)
j. Change In Plan Provisions (Laws of 2007)	0.00%
k. Contribution Rate to Amortize the UAAL (i+j)*	(4.51%)

Note: Totals may not agree due to rounding.

*No LEOFF 1 UAAL contributions are required when the plan is fully funded under current methods and assumptions.

Actuarial Liabilities

Present Value of Fully Projected Benefits	
<i>(Dollars in millions)</i>	
Active Members	
Retirement	\$5,299
Termination	38
Death	30
Disability	158
Return of Contributions on Termination	63
Return of Contributions on Death	48
Total Active	\$5,636
Inactive Members	
Terminated	\$102
Service Retired	214
Disability Retired	26
Survivors	14
Total Inactive	\$356
Laws of 2007	13
2006 Total	\$6,004
2005 Total	\$5,462

Note: Totals may not agree due to rounding.

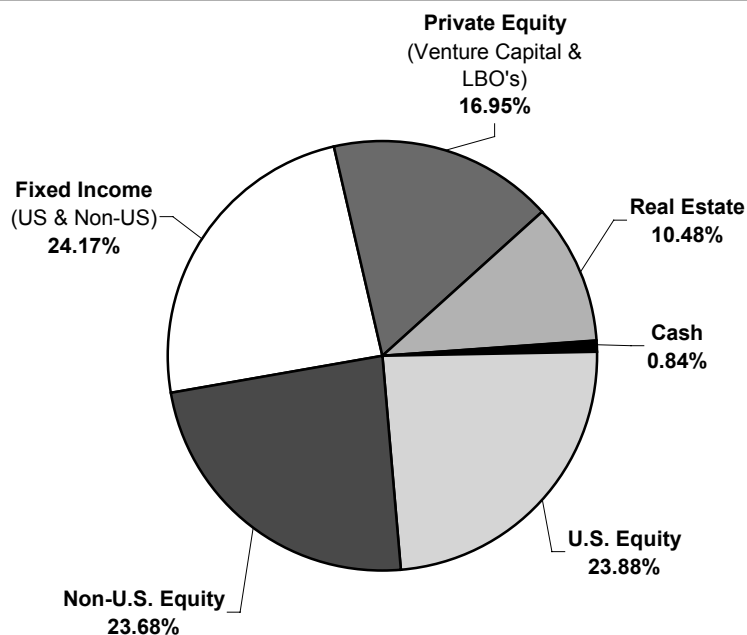
Present Value of Credited Projected Benefits*	
<i>(Dollars in millions)</i>	
Active Members	
Retirement	\$2,775
Termination	21
Death	18
Disability	85
Return of Contributions on Termination	33
Return of Contributions on Death	26
Total Active	\$2,958
Inactive Members	
Terminated	\$102
Service Retired	214
Disability Retired	26
Survivors	14
Total Inactive	\$356
Laws of 2007	9
2006 Total	\$3,323
2005 Total	\$2,932

Note: Totals may not agree due to rounding.

** Calculated using the Projected Unit Credit (PUC) cost method.
This method was not used to determine contribution requirements.*

Plan Assets

Retirement Commingled Trust Fund (CTF) Asset Allocation



Cash: Highly liquid, very safe investments that can be easily converted into cash, such as Treasury Bills and money-market funds.

Fixed Income: Securities representing debt obligations and usually having fixed payments and maturities. Different types of fixed income securities include government and corporate bonds, mortgage-backed securities, asset-backed securities, convertible issues, and may also include money-market instruments.

International Equity: Shares of non-U.S. corporations that trade on public exchanges or “over-the-counter.” The ownership of a corporation is represented by shares that are claimed on the corporation’s earnings and assets.

Private Equity: The infusion of equity capital into a private company (one which is not available on the public markets). Private equity investments include securities that are not listed on a public exchange and are not easily accessible to most individuals. These investments range from initial capital in start-up enterprises to leveraged buyouts of mature corporations.

U.S. Equity: Shares of U.S. corporations that trade on public exchanges or “over-the-counter.” The ownership of a corporation is represented by shares that are claimed on the corporation’s earnings and assets.

Real Estate: An externally-managed selection of partnership investments with the majority of the partnerships invested in high-quality real estate leased to third parties.

Change in Market Value of Assets

(Dollars in millions)

2005 Market Value	\$3,614
Revenue	
Contributions	
Employee	84
Employer/State	85
Total Contributions	168
Investment Return	577
Restorations	2
Transfers In	0
Miscellaneous	0
Total Revenue	\$748
Disbursements	
Withdrawn Annuities	
Monthly Benefits	16
Refunds	7
Total Benefits	23
Transfers Out	0
Expenses	0
Total Disbursements	\$23
Payables	\$0
2006 Market Value	\$4,339
2006 Actuarial Value	\$3,844
Ratio (AV/MV)	89%

Note: Totals may not agree due to rounding.

Calculation of Actuarial Value of Assets

(Dollars in millions)

a.	Market Value at 9/30/2006	\$4,339
b.	Deferred Investment Gains and (Losses)	
	<u>Plan Year Ending</u>	<u>Percent Deferred</u>
	9/30/2006	87.50% 249
	9/30/2005	75.00% 216
	9/30/2004	50.00% 73
	9/30/2003	50.00% 77
	9/30/2002	37.50% (120)
	Total	\$495
c.	Market Value less Deferral (a-b)	\$3,844
d.	70% of Market Value of Assets	\$3,037
e.	130% of Market Value of Assets	\$5,640
f.	Actuarial Value of Assets*	\$3,844

*Note: Totals may not agree due to rounding.***Actuarial Value of Assets can never be less than 70% or greater than 130% of the market value of assets.*

Investment Gains and (Losses) for Prior Year

(Dollars in Millions)

a.	2005 Market Value (at SIB)	\$3,605
b.	Total Cash Flow	144
c.	2006 Market Value (at SIB)	4,328
d.	Actual return (c-b-a)	\$578
e.	Weighted asset amount	\$3,666
f.	Expected return (8% x e)	293
g.	Investment Gain/(Loss) for Prior Year (d-f)	285
h.	Dollar-weighted rate of return	15.77%

Funded Status

Funded Status on an Actuarial Value Basis*

(Dollars in millions)

Credited Projected Liability	\$3,323
Valuation Assets	\$3,844
Unfunded Liability	(\$521)

Funded Ratio:

2006 **	116%
2005 **	114%
2004	117%
2003	125%
2002	137%
2001 **	154%
2000 **	161%
1999	154%
1998	160%
1997 **	155%
1996	130%
1995	126%
1994 **	124%
1993	127%
1992	128%
1991	154%
1990	153%
1989 **	158%
1988	153%
1987	157%
1986	142%

*Note: Totals may not agree due to rounding.***Liabilities have been valued using an interest rate of 8% while assets have been valued under the actuarial asset method.****Assumptions changed.*

Funded Status on a Market Value Basis*

(Dollars in millions)

Credited Projected Liability	\$5,356
Market Value of Assets	<u>\$4,339</u>
Unfunded Liability	\$1,017

Funded Ratio:

2006	81%
2005	75%
2004	72%

Note: Totals may not agree due to rounding.

*Liabilities have been valued using an interest rate of 5.5% while assets have been valued at market value. The 5.5% interest rate approximates the "risk-free" rate of return on assets. Under this method, the so-called "risk premium" on non-risk-free investments is not recognized until it is realized in the market value of assets. This method was not used to determine contribution requirements.

Actuarial Gains/Losses

**Change in State Contribution Rate by Source - Before
Completion of Phase-In**

2005 Contribution Rate	(0.12%)
Laws of 2007	N/A
2005 Adjusted Contribution Rate	(0.12%)
Economic Gains/Losses	(1.06%)
Demographic Gains/Losses	(0.03%)
Present Value Future Salaries Gains/Losses	(0.19%)
Other Gains/Losses	<u>(0.02%)</u>
Total Change	<u>(1.30%)</u>
2006 Preliminary Contribution Rate	(1.42%)
Laws of 2007	<u>0.02%</u>
2006 Contribution Rate	(1.40%)

The Contribution Rate is the State's portion for Plan 2 (20% of the Normal Cost) plus the UAAL rate for LEOFF 1.

Change in State Normal Cost Rate by Source - Before Completion of Phase-In	
2005 Normal Cost	3.24%
Laws of 2007	N/A
2005 Adjusted Normal Cost	3.24%
Assets	(0.14%)
Salaries	(0.07%)
Growth	0.00%
Economic Gains/Losses	(0.21%)
Termination/Return to Work	(0.01%)
Retirement	(0.02%)
Demographic Gains/Losses	(0.03%)
Present Value Future Salaries Gains/Losses	(0.21%)
Plan Change Gains/Losses	0.01%
Method Change Gains/Losses	0.00%
Assumption Change Gains/Losses	0.00%
Miscellaneous Change Gains/Losses	0.29%
Total Other Gains/Losses	0.30%
Total Change	(0.15%)
2006 Preliminary Normal Cost	3.09%
Laws of 2007	0.02%
2006 Normal Cost	3.11%

The Normal Cost Rate is the State's portion only (20% of the Plan 2 Normal Cost).

Change in State UAAL Rate by Source - Before Completion of Phase-In	
2005 UAAL Rate	(3.36%)
Laws of 2007	N/A
2005 Adjusted UAAL Rate	(3.36%)
Assets	(0.74%)
Salaries	(0.01%)
Inflation (CPI)	(0.10%)
Economic Gains/Losses	(0.85%)
Termination/Return to Work	0.00%
Retirement	0.00%
Demographic Gains/Losses	0.00%
Present Value Future Salaries Gains/Losses	0.02%
Plan Change Gains/Losses	0.35%
Method Change Gains/Losses	0.00%
Assumption Change Gains/Losses	0.00%
Miscellaneous Change Gains/Losses	(0.67%)
Total Other Gains/Losses	(0.32%)
Total Change	(1.15%)
2006 Preliminary UAAL Rate	(4.51%)
Laws of 2007	0.00%
2006 UAAL Rate	(4.51%)

LEOFF 1 has a surplus of assets over liabilities, so no UAAL rate is currently payable.

Effect of Plan, Assumption, and Method Changes

In addition to experience gains or losses, significant changes in plan provisions or actuarial assumptions and methods will also have an impact on contribution rates.

Plan Changes:

- Dual membership (Chapter 207, Laws of 2007).
- LEOFF 2 line-of-duty disability and/or death: occupational illness (Chapter 490, Laws of 2007).

Assumption Changes:

- LEOFF 2 line-of-duty death: occupational illness (Chapter 351, Laws of 2006).
- LEOFF 2 disability (Chapter 39, Laws of 2006).

Method Changes:

- The present value of future salaries is calculated differently for the Plan 2/3 normal cost rate as a result of a valuation software update.
- The interest credited to Plan 2 member savings accounts is calculated more precisely as a result of a valuation software update.

Effect of Changes on the Current Valuation:

The table on the next page shows the effect of the above changes on the current actuarial valuation results.

Effect of Plan, Assumption and Method Changes**Before Changes**

Present Value of Fully Projected Benefits	\$5,979
Present Value of Credited Projected Benefits	3,304
Actuarial Value of Assets	3,844
Unfunded Liability	<u>(540)</u>
Employer Contribution Rate	4.61%

After Changes

Present Value of Fully Projected Benefits	\$6,004
Present Value of Credited Projected Benefits	3,323
Actuarial Value of Assets	3,844
Unfunded Liability	<u>(521)</u>
Employer Contribution Rate	4.66%

Increase/(Decrease) in Rate **0.05%**

Before and after changes include actuarial gains and losses for the year ending 9/30/2006.

The LEOFF contribution rate is the Employer's portion only (30% of the Plan 2 Normal Cost).

Participant Data



Participant Data

Overview of System Membership

LEOFF - Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2 (Chapter 41.26 RCW).

Membership includes fire fighters; emergency medical technicians; law enforcement officers, including sheriffs; university, port, and city police officers; and enforcement officers with the Department of Fish and Wildlife.

Active Membership By Employer	
State Agencies	102
Higher Education	101
Community Colleges	0
K-12	0
Counties	2,814
County Sub Divisions	37
First Class Cities	4,770
Other Cities	4,985
Ports	179
Education Service District	0
Fire Districts	2,730
Public Utility District	0
Water Districts	0
Energy Northwest	0
Unions	0
TOTAL	15,718

The table below summarizes participant data changes from last year's valuation to the current year's valuation. The participant data is divided into two main categories: (1) Actives, and (2) Annuitants (receiving a pension or annuity payment). The "+" symbol indicates new participants entering the system or actives and new beneficiaries entering the annuitant status; whereas the "-" symbol indicates participants that have left either active or annuitant status.

Reconciliation of Participant Data	
2005 Actives	15,168
Transfers	0
Hires/Rehires (+)	1,067
New Retirees (-)	(135)
Deaths (-)	(12)
Terminations (-)	(370)
2006 Actives	15,718
2005 Annuitants	574
New Retirees (+)	203
Annuitant Deaths (-)	(4)
New Survivors (+)	8
Other (-)	(2)
2006 Annuitants	779
Ratio of Actives to Annuitants	20.18

Participant Data**Summary of Plan Participants**

Summary of Plan Participants		
	2006	2005
Active Members		
Number	15,718	15,168
Total Salaries (millions)	\$1,172	\$1,092
Average Age	40.8	40.5
Average Service	11.9	11.7
Average Salary	\$74,562	\$72,015
Terminated Members		
Number Vested	597	570
Number "Non-Vested"	1,362	1,285
Retirees		
Number of Retirees (All)	779	574
Average Monthly Benefit, All Retirees	\$1,860	\$1,668
Number of New "Service Retirees"	165	120
Average Monthly Benefit, New "Service Retirees"	\$2,344	\$2,208

Appendices



Appendices

Actuarial Assumptions and Methods

Actuarial Cost Methods

The Aggregate Cost Method was used to determine the normal cost and the actuarial accrued liability for retirement, termination, and ancillary benefits. Under this method, the unfunded actuarial present value of fully projected benefits is amortized over the future payroll of the active group. The entire contribution is considered normal cost and no UAAL exists.

The Projected Unit of Credit (PUC) cost method was used to calculate the plan's funded status and is consistent with governmental accounting standards. Please see the Glossary for an explanation of the PUC cost method.

Asset Valuation Method

The actuarial value of assets is calculated under an adjusted market value method by starting with the market value of assets. For subsequent years the actuarial value of assets is determined by adjusting the market value of assets to reflect the difference between the actual investment return and the expected investment return during each of the last eight years or, if fewer, the completed years since adoption, at the following rates per year:

Rate of Return	Annual Gain/Loss	
	Smoothing Period	Annual Recognition
15% and up	8 years	12.50%
14-15%	7 years	14.29%
13-14%	6 years	16.67%
12-13%	5 years	20.00%
11-12%	4 years	25.00%
10-11%	3 years	33.33%
9-10%	2 years	50.00%
7-9%	1 year	100.00%
6-7%	2 years	50.00%
5-6%	3 years	33.33%
4-5%	4 years	25.00%
3-4%	5 years	20.00%
2-3%	6 years	16.67%
1-2%	7 years	14.29%
1% and lower	8 years	12.50%

Additionally, the actuarial value of assets may not exceed 130 percent nor drop below 70 percent of the market value of assets.

Appendices

Changes in Assumptions and Methods since Last Valuation

The following assumptions have been updated for the laws of 2006: duty disability benefits (Chapter 39, Laws of 2006), and duty death benefits (Chapter 351, Laws of 2006).

Full details of the assumptions and methods used to value legislation passed in 2007 are set out in the 2007 fiscal notes: dual membership (Chapter 207, Laws of 2007) and line-of-duty death benefits - occupational illness (Chapter 490, Laws of 2007).

Economic Assumptions

Economic Assumptions	
Annual Growth in Membership	1.25%
Interest on Member Contributions ¹	5.50%
Return on Investment Earnings ²	8.00%
Inflation ³	3.50%
General Salary Increases (includes inflation) ⁴	4.50%
Annual COLA ⁵	3.00%

¹Annual rate, compounded quarterly

²Annual rate, compounded annually

³Based on the CPI: Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items

⁴Excludes longevity, merit or step increases that usually apply to members in the early part of their careers

⁵Based on the CPI (3% maximum)

Appendices

RP-2000 Mortality Rates (Continued)				Active, Annuitant Mortality (Continued)																							
Combined Healthy Table				Disabled Mortality (Continued)						LEOFF 2						LEOFF 1						WSP					
Age	Age Offset (Years) -->			LEOFF 2		LEOFF 1		WSP		LEOFF 2		LEOFF 1		WSP		LEOFF 2		LEOFF 1		WSP		Age					
	Male	Female	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female				
45	0.001508	0.001124	0.001124	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.001508	0.001124	0.001508	0.001124	0.001508	0.001124	45				
46	0.001616	0.001223	0.001223	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.001616	0.001223	0.001616	0.001223	0.001616	0.001223	46				
47	0.001734	0.001326	0.001326	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.001734	0.001326	0.001734	0.001326	0.001734	0.001326	47				
48	0.001860	0.001434	0.001434	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.001860	0.001434	0.001860	0.001434	0.001860	0.001434	48				
49	0.001995	0.001550	0.001550	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.001995	0.001550	0.001995	0.001550	0.001995	0.001550	49				
50	0.002138	0.001676	0.001676	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.002138	0.001676	0.002138	0.001676	0.002138	0.001676	50				
51	0.002449	0.001852	0.001852	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.002449	0.001852	0.002449	0.001852	0.002449	0.001852	51				
52	0.002667	0.002018	0.002018	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.002667	0.002018	0.002667	0.002018	0.002667	0.002018	52				
53	0.002916	0.002207	0.002207	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.002916	0.002207	0.002916	0.002207	0.002916	0.002207	53				
54	0.003196	0.002424	0.002424	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.003196	0.002424	0.003196	0.002424	0.003196	0.002424	54				
55	0.003624	0.002717	0.002717	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000	0.003624	0.002717	0.003624	0.002717	0.003624	0.002717	55				
56	0.004200	0.003090	0.003090	0.005273	0.005000	0.005273	0.005000	0.005273	0.005000	0.005273	0.005000	0.005273	0.005000	0.005273	0.005000	0.005000	0.004200	0.003090	0.004200	0.003090	0.004200	0.003090	56				
57	0.004693	0.003478	0.003478	0.005945	0.005000	0.005945	0.005000	0.005945	0.005000	0.005945	0.005000	0.005945	0.005000	0.005945	0.005000	0.005000	0.004693	0.003478	0.004693	0.003478	0.004693	0.003478	57				
58	0.005273	0.003923	0.003923	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	0.005055	0.005273	0.003923	0.005273	0.003923	0.005273	0.003923	58				
59	0.005945	0.004441	0.004441	0.007676	0.005814	0.007676	0.005814	0.007676	0.005814	0.007676	0.005814	0.007676	0.005814	0.007676	0.005814	0.005814	0.005945	0.004441	0.005945	0.004441	0.005945	0.004441	59				
60	0.006747	0.005055	0.005055	0.008757	0.006657	0.008757	0.006657	0.008757	0.006657	0.008757	0.006657	0.008757	0.006657	0.008757	0.006657	0.006657	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	60				
61	0.007676	0.005814	0.005814	0.010012	0.007648	0.010012	0.007648	0.010012	0.007648	0.010012	0.007648	0.010012	0.007648	0.010012	0.007648	0.007648	0.007676	0.005814	0.007676	0.005814	0.007676	0.005814	61				
62	0.008757	0.006657	0.006657	0.011280	0.008619	0.011280	0.008619	0.011280	0.008619	0.011280	0.008619	0.011280	0.008619	0.011280	0.008619	0.008619	0.008757	0.006657	0.008757	0.006657	0.008757	0.006657	62				
63	0.010012	0.007648	0.007648	0.012737	0.009706	0.012737	0.009706	0.012737	0.009706	0.012737	0.009706	0.012737	0.009706	0.012737	0.009706	0.009706	0.010012	0.007648	0.010012	0.007648	0.010012	0.007648	63				
64	0.011280	0.008619	0.008619	0.014409	0.010954	0.014409	0.010954	0.014409	0.010954	0.014409	0.010954	0.014409	0.010954	0.014409	0.010954	0.010954	0.011280	0.008619	0.011280	0.008619	0.011280	0.008619	64				
65	0.012737	0.009706	0.009706	0.016075	0.012163	0.016075	0.012163	0.016075	0.012163	0.016075	0.012163	0.016075	0.012163	0.016075	0.012163	0.012163	0.012737	0.009706	0.012737	0.009706	0.012737	0.009706	65				
66	0.014409	0.010954	0.010954	0.017871	0.013445	0.017871	0.013445	0.017871	0.013445	0.017871	0.013445	0.017871	0.013445	0.017871	0.013445	0.013445	0.014409	0.010954	0.014409	0.010954	0.014409	0.010954	66				
67	0.016075	0.012163	0.012163	0.019802	0.014860	0.019802	0.014860	0.019802	0.014860	0.019802	0.014860	0.019802	0.014860	0.019802	0.014860	0.014860	0.016075	0.012163	0.016075	0.012163	0.016075	0.012163	67				
68	0.017871	0.013445	0.013445	0.022206	0.016742	0.022206	0.016742	0.022206	0.016742	0.022206	0.016742	0.022206	0.016742	0.022206	0.016742	0.016742	0.017871	0.013445	0.017871	0.013445	0.017871	0.013445	68				
69	0.019802	0.014860	0.014860	0.024570	0.018579	0.024570	0.018579	0.024570	0.018579	0.024570	0.018579	0.024570	0.018579	0.024570	0.018579	0.018579	0.019802	0.014860	0.019802	0.014860	0.019802	0.014860	69				

Appendices

RP-2000 Mortality Rates (Continued)				Disabled Mortality (Continued)								Active, Annuitant Mortality (Continued)							
Combined Healthy Table				LEOFF 2				LEOFF 1				LEOFF 2				LEOFF 1			
Age	Male	Female	WSP	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	WSP	
Age Offset (Years) -->	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
Minimum Probability -->	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
95	0.267491	0.194509	0.299852	0.215240	0.299852	0.215240	0.299852	0.215240	0.299852	0.215240	0.299852	0.215240	0.299852	0.215240	0.299852	0.215240	0.299852	0.215240	
96	0.283905	0.205379	0.315296	0.223947	0.315296	0.223947	0.315296	0.223947	0.315296	0.223947	0.315296	0.223947	0.315296	0.223947	0.315296	0.223947	0.315296	0.223947	
97	0.299852	0.215240	0.330207	0.231387	0.330207	0.231387	0.330207	0.231387	0.330207	0.231387	0.330207	0.231387	0.330207	0.231387	0.330207	0.231387	0.330207	0.231387	
98	0.315296	0.223947	0.344556	0.237467	0.344556	0.237467	0.344556	0.237467	0.344556	0.237467	0.344556	0.237467	0.344556	0.237467	0.344556	0.237467	0.344556	0.237467	
99	0.330207	0.231387	0.358628	0.244834	0.358628	0.244834	0.358628	0.244834	0.358628	0.244834	0.358628	0.244834	0.358628	0.244834	0.358628	0.244834	0.358628	0.244834	
100	0.344556	0.237467	0.371685	0.254498	0.371685	0.254498	0.371685	0.254498	0.371685	0.254498	0.371685	0.254498	0.371685	0.254498	0.371685	0.254498	0.371685	0.254498	
101	0.358628	0.244834	0.383040	0.266044	0.383040	0.266044	0.383040	0.266044	0.383040	0.266044	0.383040	0.266044	0.383040	0.266044	0.383040	0.266044	0.383040	0.266044	
102	0.371685	0.254498	0.392003	0.279055	0.392003	0.279055	0.392003	0.279055	0.392003	0.279055	0.392003	0.279055	0.392003	0.279055	0.392003	0.279055	0.392003	0.279055	
103	0.383040	0.266044	0.397886	0.293116	0.397886	0.293116	0.397886	0.293116	0.397886	0.293116	0.397886	0.293116	0.397886	0.293116	0.397886	0.293116	0.397886	0.293116	
104	0.392003	0.279055	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811	
105	0.397886	0.293116	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725	
106	0.400000	0.307811	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441	
107	0.400000	0.322725	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	
108	0.400000	0.337441	0.400000	0.364617	0.400000	0.364617	0.400000	0.364617	0.400000	0.364617	0.400000	0.364617	0.400000	0.364617	0.400000	0.364617	0.400000	0.364617	
109	0.400000	0.351544	0.400000	0.376246	0.400000	0.376246	0.400000	0.376246	0.400000	0.376246	0.400000	0.376246	0.400000	0.376246	0.400000	0.376246	0.400000	0.376246	
110	0.400000	0.364617	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	

Age	Service Retirement				Disablement				Ratio of Survivors Selecting Annuities*						
	LEOFF 2		LEOFF 1		Nonduty		LEOFF 1		LEOFF 2		LEOFF 1		WSP		
	Service less than 30 years		Service greater than or equal to 30 years		Duty		Male & Female		Male & Female		Male & Female		Male & Female		
	Male & Female	Male & Female	Male & Female	Male & Female	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF 1	WSP
20	0.00	0.00	0.00	0.00	0.001010	0.000022	0.001000	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	20
21	0.00	0.00	0.00	0.00	0.001034	0.000022	0.001000	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	21
22	0.00	0.00	0.00	0.00	0.001059	0.000022	0.001000	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	22
23	0.00	0.00	0.00	0.00	0.001084	0.000022	0.001000	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	23
24	0.00	0.00	0.00	0.00	0.001110	0.000022	0.001000	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	24
25	0.00	0.00	0.00	0.00	0.001137	0.000022	0.001000	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	25
26	0.00	0.00	0.00	0.00	0.001164	0.000024	0.002397	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	26
27	0.00	0.00	0.00	0.00	0.001192	0.000026	0.003793	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	27
28	0.00	0.00	0.00	0.00	0.001221	0.000028	0.005187	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	28
29	0.00	0.00	0.00	0.00	0.001250	0.000031	0.006578	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	29
30	0.00	0.00	0.00	0.00	0.001280	0.000033	0.007968	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	30
31	0.00	0.00	0.00	0.00	0.001367	0.000035	0.009356	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	31
32	0.00	0.00	0.00	0.00	0.001460	0.000037	0.010742	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	32
33	0.00	0.00	0.00	0.00	0.001559	0.000039	0.012126	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	33
34	0.00	0.00	0.00	0.00	0.001665	0.000042	0.013508	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	34
35	0.00	0.00	0.00	0.00	0.001778	0.000044	0.014888	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	35
36	0.00	0.00	0.00	0.00	0.001899	0.000050	0.016267	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	36
37	0.00	0.00	0.00	0.00	0.002028	0.000057	0.019033	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	37
38	0.00	0.00	0.00	0.00	0.002166	0.000066	0.020514	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	38
39	0.00	0.00	0.00	0.00	0.002313	0.000077	0.021994	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	39
40	0.00	0.00	0.00	0.00	0.002470	0.000088	0.023471	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	40
41	0.00	0.00	0.00	0.00	0.002627	0.000098	0.024946	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	41
42	0.00	0.00	0.00	0.00	0.002794	0.000109	0.026419	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	42
43	0.00	0.00	0.00	0.00	0.002971	0.000123	0.027889	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	43
44	0.00	0.00	0.00	0.00	0.003159	0.000138	0.036042	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	44
45	0.00	0.00	0.00	0.00	0.003360	0.000153	0.042372	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	45
46	0.00	0.00	0.00	0.00	0.004317	0.000197	0.048661	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	46
47	0.00	0.00	0.00	0.00	0.005546	0.000256	0.054909	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	47
48	0.00	0.00	0.00	0.00	0.007125	0.000328	0.061118	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	48
49	0.00	0.00	0.00	0.00	0.009154	0.000424	0.067287	0.001000	0.00	0.00	0.00	0.00	0.00	0.00	49
50	0.09	0.08	0.15	0.31	0.011760	0.000547	0.073417	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	50

*Refers to survivor who selects annuity payments (rather than a lump sum payment) upon active or terminated vested member's death. The LEOFF 2 ratio is 0.60 for duty-related deaths.

Appendices

Age	Service Retirement (Continued)						Disablement (Continued)						Ratio of Survivors Selecting Annuities* (Continued)								
	LEOFF 2		LEOFF 1		WSP		Duty		Nonduty		LEOFF 1		WSP		LEOFF 2		LEOFF 1		WSP		
	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	
	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	
51	0.09	0.06	0.14	0.23	0.23	0.23	0.014078	0.000628	0.079508	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	51
52	0.09	0.07	0.16	0.23	0.28	0.28	0.016852	0.000722	0.085561	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	52
53	0.16	0.07	0.16	0.23	0.28	0.28	0.020174	0.000851	0.091576	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	53
54	0.19	0.09	0.19	0.23	0.28	0.28	0.024150	0.000951	0.097553	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	54
55	0.24	0.14	0.24	0.23	0.28	0.28	0.028910	0.000951	0.103493	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	55
56	0.25	0.14	0.25	0.28	0.28	0.28	0.028910	0.000951	0.109395	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	56
57	0.25	0.14	0.26	0.28	0.28	0.28	0.028910	0.000951	0.115262	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	57
58	0.33	0.21	0.33	0.28	0.28	0.28	0.028910	0.000951	0.121663	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	58
59	0.33	0.21	0.33	0.28	0.28	0.28	0.028910	0.000951	0.121663	0.001000	0.25	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	59
60	0.33	0.23	0.35	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	60
61	0.37	0.28	0.40	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	61
62	0.37	0.28	0.40	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	62
63	0.37	0.28	0.40	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	63
64	0.48	0.40	0.52	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	64
65	1.00	1.00	1.00	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	65
66	1.00	1.00	1.00	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	66
67	1.00	1.00	1.00	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	67
68	1.00	1.00	1.00	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	68
69	1.00	1.00	1.00	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	69
70	1.00	1.00	1.00	1.00	1.00	1.00	0.028910	0.000951	0.121663	0.001000	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	70
71	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	71
72	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	72
73	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	73
74	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	74
75	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	75
76	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	76
77	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	77
78	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	78
79	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	79
80+	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	80+

*Refers to survivor who selects annuity payments (rather than a lump sum payment) upon active or terminated vested member's death. The LEOFF 2 ratio is 0.60 for duty-related deaths.

Service Years	Termination				Percent Vested*				Salary Scale									
	LEOFF 2		LEOFF 1		WSP		LEOFF 2		LEOFF 1		WSP		LEOFF 2		LEOFF 1		WSP	
	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female
0	0.1033	0.1043	0.0243	0.0243	0.00	N/A	N/A	0.00	0.00	11.70%	2.022	1.810	1.779	11.70%	2.022	1.810	1.779	0
1	0.0459	0.0469	0.0243	0.0243	0.00	N/A	N/A	0.00	0.00	11.70%	1.810	1.810	1.678	11.70%	1.810	1.810	1.678	1
2	0.0227	0.0237	0.0243	0.0243	0.00	N/A	N/A	0.00	0.00	8.10%	1.621	1.621	1.583	8.10%	1.621	1.621	1.583	2
3	0.0198	0.0208	0.0243	0.0243	0.00	N/A	N/A	0.00	0.00	6.60%	1.499	1.499	1.493	6.60%	1.499	1.499	1.493	3
4	0.0188	0.0198	0.0243	0.0243	0.00	N/A	N/A	0.00	0.00	4.50%	1.406	1.406	1.409	4.50%	1.406	1.406	1.409	4
5	0.0184	0.0194	0.0138	0.0138	0.15	N/A	N/A	0.15	0.15	3.20%	1.346	1.346	1.329	3.20%	1.346	1.346	1.329	5
6	0.0184	0.0194	0.0138	0.0138	0.15	N/A	N/A	0.15	0.15	2.50%	1.304	1.304	1.254	2.50%	1.304	1.304	1.254	6
7	0.0184	0.0194	0.0138	0.0138	0.15	N/A	N/A	0.15	0.15	2.20%	1.272	1.272	1.183	2.20%	1.272	1.272	1.183	7
8	0.0157	0.0167	0.0138	0.0138	0.15	N/A	N/A	0.15	0.15	2.00%	1.245	1.245	1.168	2.00%	1.245	1.245	1.168	8
9	0.0157	0.0167	0.0138	0.0138	0.15	N/A	N/A	0.15	0.15	2.00%	1.221	1.221	1.153	2.00%	1.221	1.221	1.153	9
10	0.0157	0.0167	0.0087	0.0087	0.15	N/A	N/A	0.15	0.15	2.00%	1.197	1.197	1.138	2.00%	1.197	1.197	1.138	10
11	0.0132	0.0142	0.0087	0.0087	0.15	N/A	N/A	0.15	0.15	1.90%	1.173	1.173	1.123	1.90%	1.173	1.173	1.123	11
12	0.0132	0.0142	0.0087	0.0087	0.15	N/A	N/A	0.15	0.15	1.80%	1.151	1.151	1.109	1.80%	1.151	1.151	1.109	12
13	0.0132	0.0142	0.0087	0.0087	0.15	N/A	N/A	0.15	0.15	1.70%	1.131	1.131	1.095	1.70%	1.131	1.131	1.095	13
14	0.0089	0.0099	0.0087	0.0087	0.15	N/A	N/A	0.15	0.15	1.60%	1.112	1.112	1.081	1.60%	1.112	1.112	1.081	14
15	0.0089	0.0099	0.0064	0.0064	0.15	N/A	N/A	0.15	0.15	1.60%	1.095	1.095	1.067	1.60%	1.095	1.095	1.067	15
16	0.0089	0.0099	0.0064	0.0064	0.15	N/A	N/A	0.15	0.15	1.60%	1.077	1.077	1.053	1.60%	1.077	1.077	1.053	16
17	0.0060	0.0070	0.0064	0.0064	0.15	N/A	N/A	0.15	0.15	1.60%	1.060	1.060	1.040	1.60%	1.060	1.060	1.040	17
18	0.0060	0.0070	0.0064	0.0064	0.35	N/A	N/A	0.35	0.35	1.60%	1.044	1.044	1.026	1.60%	1.044	1.044	1.026	18
19	0.0060	0.0070	0.0064	0.0064	0.35	N/A	N/A	0.35	0.35	1.40%	1.027	1.027	1.013	1.40%	1.027	1.027	1.013	19
20	0.0060	0.0070	0.0019	0.0019	0.75	N/A	N/A	0.75	0.75	1.30%	1.013	1.013	1.000	1.30%	1.013	1.013	1.000	20
21	0.0060	0.0070	0.0019	0.0019	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	1.000	1.000	0.00%	1.000	1.000	1.000	21
22	0.0060	0.0070	0.0019	0.0019	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	1.000	1.000	0.00%	1.000	1.000	1.000	22
23	0.0060	0.0070	0.0019	0.0019	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	1.000	1.000	0.00%	1.000	1.000	1.000	23
24	0.0060	0.0070	0.0019	0.0019	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	1.000	1.000	0.00%	1.000	1.000	1.000	24

*Denotes ratio of members who do not withdraw their savings when they leave employment.

Appendices

Service Years	Termination (Continued)				Percent Vested* (Continued)				Salary Scale (Continued)						
	LEOFF 2		LEOFF 1		LEOFF 2		LEOFF 1		LEOFF 2		LEOFF 1		WSP		
	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	% Increase	Salary Ratio	% Increase	Salary Ratio	
25	0.0060	0.0070	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
26	0.0060	0.0070	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
27	0.0060	0.0070	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
28	0.0060	0.0070	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
29	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
30	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
31	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
32	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
33	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
34	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
35	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
36	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
37	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
38	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
39	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
40	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
41	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
42	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
43	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
44	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
45	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
46	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
47	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
48	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
49	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000
50	0.0000	0.0000	0.0000	0.0000	1.00	N/A	N/A	1.00	1.00	0.00%	1.000	0.00%	1.000	0.00%	1.000

*Denotes ratio of members who do not withdraw their savings when they leave employment.

Portability Load

LEOFF 2	0.1%
LEOFF 1	N/A
WSP	0.0%

Reflects portability provisions for each plan.

Certain and Life Annuities: Years Certain

LEOFF 2	5
LEOFF 1	N/A
WSP 1	N/A
WSP 2	4

Member/Beneficiary Age Difference (In Years)

	Male Member	Female Member
LEOFF 2	4	(4)
LEOFF 1	4	(4)
WSP	3	(2)

Age difference is Member age minus Beneficiary age.

Duty-Related Death Assumption

	Duty Death Rate*
LEOFF 2	0.0280%
LEOFF 1	0.0200%
WSP	0.0200%

*The duty death rate is a constant probability applied, regardless of age. The nonduty death rate is obtained by subtracting duty death rate from mortality rate in any given age.

Duty-Related Disability Assumption

Age	Duty Disability Rate*
20	95.00%
25	92.47%
30	90.00%
35	87.46%
40	85.00%
50	75.00%
55+	70.00%

*Probability of disability being duty-related; geometrically interpolated between given values. Applies to LEOFF 2 only. Table represents a summary of rates.

Additional Duty-Related Assumptions for LEOFF 2

Percent of disabilities assumed to be catastrophic. 18%

Percent of deaths assumed to be caused by occupational diseases for fire fighters.

Age	Rate
20-49	21.171%
50-69	13.462%

Miscellaneous Assumptions/Methods

- Minimum and maximum allowable ages are set in the data as follows:

	Non-Annuitants	Annuitants
Minimum Age	16	20
Maximum Age	99	120

- Default entry salaries, increased for past service, are assigned for active members with less than two months' service during the valuation year.
- Historical salaries for vested terminated members are not provided. To estimate salaries for these members, the following procedure is used: First, a salary appropriate for the given system/plan and the member's total past service is assigned. These salaries are determined as of a given base year. Second, the salary is divided by the general salary increase assumption for each year the member has been inactive as measured from the base year.
- While the Department of Retirement Systems reports salaries earned during the year prior to the valuation date, the salaries used in the first year of the valuation process have received an additional merit salary increase. In other words, the valuation software projects salaries to the coming year, beginning the day after the valuation date.
- All systems now use a midyear decrement timing assumption. Additionally, Final Average Salary (FAS) is developed using the trapezoidal rule, which includes six months of salary in the year of retirement in the average.
- Disability and termination rates are discontinued after members are eligible to retire.

Summary of Plan Provisions

Summary of Plan Provisions	
Effective Date of Plan	10/1/77
Date Closed to New Entrants	Open
Statutory Reference	Chapter 41.26 RCW
Normal Retirement Eligibility (age/service)	53/5
Accrued Benefit Formula	2% x YOS x AFC; 0.25% per month pre-retirement COLA with 20 years of service
Computation of FAS/AFC	Average compensation earnable for the highest 60 consecutive months
Credited Service	Monthly, based on hours worked each month
Vesting	5 years
Vested Benefits Upon Termination	Refund of employee contributions (x 150% if 10 YOS) plus interest, or deferred retirement allowance
Early Retirement Eligibility (age/service)	50/20
Early Retirement Reduction Factors	3% ERF with 20 YOS
Disability Retirement Benefit	Non-duty: accrued benefit, actuarially reduced; Duty, occupational: accrued benefit without actuarial reduction, minimum 10% of AFC; Duty, total: 70% of AFC with offsets for Social Security and L&I benefits, not to exceed 100% of AFC.
COLA	Lesser of CPI* or 3%
Minimum Benefit per Month per YOS	n/a
Changes in Plan Provisions Since Last Valuation	Dual Membership (C 207 L 07); Occupational Diseases affecting fire fighters (C 490 L 07)
Benefits Not Included in this Valuation	Contribution Rate Floor (adopted by LEOFF 2 Board; effective 7/1/2009); liability for legal order payees.

*CPI: *Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items.*

Appendices

Early Retirement Reduction Factors			Early Retirement Reduction Factors (Continued)		
Years Early	LEOFF2, WSP*	Subsidized 3%**	Years Early	LEOFF2, WSP*	Subsidized 3%**
0	1.0000	1.00	25	0.1400	N/A
1	0.9200	0.97	26	0.1300	N/A
2	0.8400	0.94	27	0.1200	N/A
3	0.7600	0.91	28	0.1100	N/A
4	0.7100	N/A	29	0.1000	N/A
5	0.6600	N/A	30	0.1000	N/A
6	0.6100	N/A	31	0.1000	N/A
7	0.5600	N/A	32	0.1000	N/A
8	0.5100	N/A	33	0.1000	N/A
9	0.4700	N/A	34	0.1000	N/A
10	0.4300	N/A	35	0.1000	N/A
11	0.3900	N/A	36	0.1000	N/A
12	0.3500	N/A	37	0.1000	N/A
13	0.3100	N/A	38	0.1000	N/A
14	0.2900	N/A	39	0.1000	N/A
15	0.2700	N/A	40	0.1000	N/A
16	0.2500	N/A	41	0.1000	N/A
17	0.2300	N/A	42	0.1000	N/A
18	0.2100	N/A	43	0.1000	N/A
19	0.2000	N/A	44	0.1000	N/A
20	0.1900	N/A	45	0.1000	N/A
21	0.1800	N/A	46	0.1000	N/A
22	0.1700	N/A	47	0.1000	N/A
23	0.1600	N/A	48	0.1000	N/A
24	0.1500	N/A	49	0.1000	N/A

Early Retirement Reduction Factors are not applied in LEOFF 1.

*Terminated Vested only.

**LEOFF 2 members must be at least age 50 with 20 or more years of service to qualify.

Age/Service Distribution

Age and Service Distribution of Active Members
(Number of Actives and Average Salary)

LEOFF Plan 2: Attained Age	Attained Years of Service													Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over		
Under 25	88	99	31	8	4	0	0	0	0	0	0	0	0	0	230
	\$45,510	\$49,733	\$53,666	\$57,607	\$68,450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,247
25-29	166	290	204	188	152	291	1	0	0	0	0	0	0	0	1,292
	\$46,803	\$50,048	\$58,808	\$60,417	\$65,779	\$69,298	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,743
30-34	96	203	167	190	217	1,223	243	0	0	0	0	0	0	0	2,339
	\$47,943	\$52,418	\$59,068	\$62,618	\$65,072	\$71,731	\$74,897	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$67,145
35-39	59	140	121	145	138	1,205	1,270	356	2	0	0	0	0	0	3,436
	\$49,267	\$55,978	\$56,902	\$64,886	\$68,833	\$72,123	\$76,115	\$81,191	\$97,469	\$0	\$0	\$0	\$0	\$0	\$72,529
40-44	23	71	44	65	53	555	814	1,130	280	3	0	0	0	0	3,038
	\$48,588	\$57,151	\$57,895	\$65,061	\$70,549	\$71,738	\$77,582	\$81,416	\$89,209	\$80,955	\$0	\$0	\$0	\$0	\$77,643
45-49	12	26	19	39	29	237	413	753	711	359	0	0	0	0	2,598
	\$54,802	\$60,523	\$59,964	\$65,112	\$73,196	\$69,709	\$76,215	\$81,354	\$86,395	\$93,530	\$0	\$0	\$0	\$0	\$81,714
50-54	9	15	12	23	22	114	185	356	464	746	0	0	0	0	1,946
	\$49,293	\$68,233	\$52,932	\$69,199	\$82,462	\$70,653	\$75,391	\$80,604	\$85,316	\$88,646	\$0	\$0	\$0	\$0	\$83,207
55-59	1	9	6	15	13	47	51	123	139	275	1	0	0	0	680
	*	\$82,853	\$87,616	\$63,135	\$88,532	\$75,927	\$75,319	\$77,616	\$83,342	\$86,906	*	\$0	\$0	\$0	\$82,273
60-64	0	2	3	4	5	12	14	34	34	34	0	0	0	0	142
	\$0	\$53,519	\$51,109	\$84,062	\$59,965	\$76,862	\$74,117	\$80,333	\$79,925	\$82,459	\$0	\$0	\$0	\$0	\$78,231
65-69	0	0	0	0	1	2	6	3	3	1	0	0	0	0	16
	\$0	\$0	\$0	\$0	*	\$93,277	\$72,424	\$68,018	\$88,772	*	\$0	\$0	\$0	\$0	\$78,680
70 & Over	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	\$0	\$0	\$0	\$0	\$0	\$0	*
Total	454	855	607	677	634	3,686	2,997	2,756	1,633	1,418	1	0	0	0	15,718
	\$47,495	\$53,126	\$58,337	\$63,173	\$67,910	\$71,587	\$76,359	\$81,064	\$86,194	\$89,410	*	\$0	\$0	\$0	\$74,562

Average: Age 40.8 Number of Participants: Vested 12,116 Males 14,426 Early Retirement Eligible: 813
 Service 11.9 Not Vested 3,602 Females 1,292 Normal Retirement Eligible: 1,364

*Annual Salary omitted for privacy reasons.
 Numbers of participants eligible for early and normal retirement are estimates only.

Appendices

Age/Years Retired Distribution

LEOFF Plan 2: Attained Age														Total
Age and Years Retired Distribution of All Annuitant Members (Number of All Annuitant Members and Average Monthly Benefit)														
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
Under 50	1	7	9	6	4	7	0	0	0	0	0	0	0	34
	*	\$1,290	\$1,452	\$1,017	\$696	\$561	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,094
50-54	39	72	19	9	6	9	0	0	0	0	0	0	0	154
	\$2,436	\$2,282	\$2,595	\$2,134	\$1,532	\$1,229	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,260
55-59	29	73	65	44	35	47	1	1	0	0	0	0	0	295
	\$2,724	\$2,516	\$2,253	\$1,953	\$1,651	\$1,465	*	*	\$0	\$0	\$0	\$0	\$0	\$2,110
60-64	10	21	22	15	19	75	2	0	0	0	0	0	0	164
	\$2,301	\$2,207	\$1,881	\$2,053	\$1,571	\$1,434	\$622	\$0	\$0	\$0	\$0	\$0	\$0	\$1,709
65-69	3	4	7	8	12	31	16	1	0	0	0	0	0	82
	\$1,917	\$1,630	\$1,607	\$1,479	\$1,522	\$1,435	\$564	*	\$0	\$0	\$0	\$0	\$0	\$1,311
70-74	0	0	0	2	2	13	16	0	0	1	0	0	0	34
	\$0	\$0	\$0	\$1,041	\$2,016	\$1,330	\$921	\$0	\$0	*	\$0	\$0	\$0	\$1,122
75-79	0	0	0	0	0	1	4	6	2	0	0	0	0	13
	\$0	\$0	\$0	\$0	\$0	*	\$1,715	\$681	\$537	\$0	\$0	\$0	\$0	\$1,033
80-84	0	0	0	0	0	0	0	2	0	0	0	0	0	2
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$723	\$0	\$0	\$0	\$0	\$0	\$723
85-89	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	\$0	\$0	\$0	\$0	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*
90-94	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	82	177	122	84	79	183	39	10	2	1	0	0	0	779
	\$2,501	\$2,316	\$2,143	\$1,857	\$1,551	\$1,391	\$830	\$600	\$537	*	\$0	\$0	\$0	\$1,860

Average: Age 58.5
Years Retired 3.6

Males 692
Females 87

*Monthly benefit omitted for privacy reasons.

Historical Data

	Historical Data					
(Dollars in millions)	2006	2005	2004	2003	2002	2001 ¹
Contribution Information						
Employer Rate	4.66%	4.86%	4.57%	4.32%	3.84%	3.03%
State Rate	3.11%	3.24%	3.03%	2.88%	2.57%	2.02%
Employee Rate	7.77%	8.10%	7.60%	7.20%	6.41%	5.05%
Funded Status						
Credited Projected Liability	\$3,323	\$2,932	\$2,521	\$2,194	\$1,937	\$1,668
Market Value of Assets	\$4,339	\$3,614	\$2,984	\$2,541	\$2,136	\$2,210
Actuarial Value of Assets	\$3,844	\$3,329	\$2,947	\$2,740	\$2,646	\$2,576
Unfunded Liability	(\$521)	(\$397)	(\$426)	(\$547)	(\$709)	(\$907)
Funded Ratio	115.68%	113.53%	116.89%	124.91%	136.62%	154.00%
Participant Data						
Number of Actives	15,718	15,168	14,754	14,560	14,011	13,585
Total Annual Salaries	\$1,172	\$1,092	\$1,020	\$967	\$902	\$831
Number of Terminated Vested	597	570	521	439	376	303
Number of Terminated, Not Vested	1,362	1,285	1,233	1,186	1,137	1,051
Number of Retirees and Beneficiaries	779	574	432	316	244	184
Total Annual Benefits	\$17	\$11	\$8	\$5	\$3	\$2
Assumptions						
Valuation Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%	5.90%
Salary Increase	7.40%	7.40%	7.60%	7.70%	7.80%	5.80%
Inflation ²	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Growth in Membership	1.25%	1.25%	1.25%	1.25%	1.25%	0.94%
Actuarial Experience						
Return on Market Value	15.77%	17.55%	13.64%	15.13%	(6.31%)	(9.77%)
Return on Actuarial Value	10.80%	9.30%	4.10%	0.60%	0.10%	2.00%
Salary Increase	5.50%	5.90%	5.20%	4.80%	7.00%	4.60%
Inflation	3.02%	1.57%	1.41%	1.81%	3.55%	3.75%
Growth in Membership	2.66%	1.85%	0.33%	2.59%	1.73%	1.83%
COLA ³	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

¹For the 2001 valuation, the salary, interest, and growth rates were not annualized. They reflect the actual valuation period of nine months.

²Based on the assumption for prior year's CPI: Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items.

³COLA is based on the CPI (3% maximum per year).

Glossary

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 Gain or Loss

Experience of the plan, 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 assets earned 10 percent for a given year since the assumed interest rate in the valuation is 8 percent.

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.

Entry Age Normal Cost (EANC) Funding Method

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

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

The normal cost is 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.

Funded Ratio

The ratio of a plan's assets to its liabilities. There are several acceptable methods of measuring a plan's assets and liabilities. In financial reporting of public pension plans, funded status is reported using consistent measures by all governmental entities. According to the Governmental Accounting Standards Board (GASB), the funded ratio is the actuarial value of assets divided by the actuarial accrued liability calculated under PUC (see below).

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. The employer normal cost is the total normal cost of the plan reduced by employee contributions.

Present Value of Credited Projected Benefits

The actuarial accrued liability computed under the Projected Unit Credit (PUC) funding method.

Present Value of Fully Projected Benefits

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

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.

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