WASHINGTON STATE

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

2008 Actuarial Valuation Report

Office of the State Actuary

"Securing tomorrow's pensions today."

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A special thank you to Charles Middleton for the use of his "Fire Fighter Saving Girl" photo.

Additional assistance provided by:
Department of Retirement Systems
Washington State Investment Board

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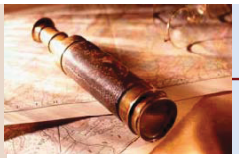

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Letter of Introduction
Law Enforcement Officers' and Fire Fighters'
Retirement System Plan 2
Actuarial Valuation Report
As of June 30, 2008
November 2009

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 for the plan year ending June 30, 2008. These contribution requirements are purely informational since, according to state law, this "off-cycle" valuation is not used to determine contribution rates. This valuation also provides information on the funding progress and developments in the plans over the past year. I caution the reader that the actuarial analysis contained in this report is outdated due to the significant economic events since June 30, 2008. I recommend you review the Report on Financial Condition, as prepared for the LEOFF Plan 2 Retirement Board, which is available on our website at the address noted at the bottom of this letter.

This 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 LEOFF 2. The remaining sections of the report provide detailed actuarial asset and liability information and participant data. The Appendices provide a summary of the principal actuarial assumptions and methods, a summary of the major plan provisions, and additional information used to prepare this valuation.

I 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. I also invite you to visit our website (http://www.osa.leg.wa.gov) for further information regarding the actuarial funding of the Washington State retirement systems.

Sincerely,

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Summary of Key Results

Summary of Key Results

Intended Use

The purpose of this report is to develop contribution rates required to fund the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 2 based on the funding policy described in this section. However, this is not a rate-setting valuation so the results in this report provide information on the contribution rates, funding progress, and developments in the plan over the past year. This report also discloses the data, methods, and assumptions we used to develop the contribution rates. We don't intend this report to satisfy the accounting requirements under the Governmental Accounting Standards Board (GASB) rules.

Contribution Rates

We determined the member, employer, and state contribution rates as a percentage of salary. The summary table below shows contribution rates along with comparable rates from the previous valuation. The Actuarial Exhibits section of this report shows how we developed these rates.

Contribution Rates		
	2008	2007
Member	7.23%	7.60%
Employer*	4.34%	4.56%
State	2.89%	3.04%

**Excludes administrative expense rate.*

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. These recommendations are based on an actuarial valuation performed on asset, participant, and plan information from odd-numbered years. The Board adopts contribution rates for LEOFF Plan 2 as provided under RCW 41.26.720(1)(a). 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 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.

Funding Policy

Washington State relies on systematic actuarial funding to finance the on-going cost of the state retirement systems. Under this financing approach, we reduce the cost of future pension payments by the expected long-term return on invested contributions.

The state's funding policy is found in Chapter 41.45 RCW - Actuarial Funding of State Retirement Systems. It includes the following goals – to:

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

The Washington State Investment Board (WSIB) directs the investment of retirement system contributions. RCW 43.33A.110 requires the investment board to maximize investment returns at a prudent level of risk.

The Board also adopted minimum contribution rates equal to 90 percent of the normal cost rate calculated under the Entry Age Normal (EANC) actuarial cost method. The Board increased this minimum rate to 100 percent of the EANC during 2009-2013.

Comments on 2008 Results

Short-term actuarial gains or losses occur when actual economic and demographic experience differs from our long-term assumptions. Actuarial gains will reduce contribution rates; 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 also impact contribution rates. Major factors that impacted the results of this valuation include the following.

- The actual rate of investment return for the plan year was below the assumed rate of 8 percent. The actual, annualized investment return on the market value of assets was -1.33 percent (dollar-weighted). The rate of investment return on the actuarial value of assets for the plan year was greater than the assumed rate of 8 percent for LEOFF 2.
- Actual salary growth was greater than the assumed growth for the period.

Detailed gain and loss information can be found in the Actuarial Exhibits section of this report.

Actuarial Liabilities

The table below summarizes key measures of actuarial liability along with the liabilities from last year's valuation. See the Actuarial Exhibits section of this report for additional information on the plan's actuarial liabilities. Also, see the Glossary for a brief explanation of the actuarial terms.

Actuarial Liabilities		
(Dollars in millions)	**2008**	**2007**
Present Value of Fully Projected Benefits	$6,596	$6,149
Unfunded Actuarial Accrued Liability	N/A	N/A
Projected Unit Credit Liability	$3,786	$3,386
Valuation Interest Rate	8.00%	8.00%

Plan Assets

The next table shows the market value of assets and actuarial (or smoothed) value of assets 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.

Plan Assets		
(Dollars in millions)	**2008**	**2007**
Market Value of Assets	$5,315	$5,185
Actuarial Value of Assets	5,053	4,360
Contributions*	235	145
Disbursements	35	23
Investment Return	(70)	723
Other**	$1	$2
Rate of Return on Assets***	(1.22%)	16.53%

**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.*

Funded Status

We use the Projected Unit Credit (PUC) actuarial cost method to report the plan's funded status. This is consistent with governmental accounting standards. The PUC cost method projects future benefits under the plan, using salary growth and other assumptions, and applies the service that has been earned as of the valuation date to determine accrued (earned) liabilities. Comparing the PUC liabilities to the actuarial value of assets provides an appropriate measure of a plan's funded status.

We did not use the PUC cost method to determine contribution requirements for LEOFF Plan 2. Please see the Glossary for a more detailed explanation of PUC.

The next table displays the funded status for LEOFF Plan 2.

Funded Status		
(Dollars in millions)	2008	2007
a. Projected Unit Credit Liability	$3,786	$3,386
b. Actuarial Value of Assets	5,053	4,360
c. Unfunded Liability (a-b)	($1,266)	($974)
d. Projected Unit Credit Funded Ratio (b/a)	133%	129%

Note: Totals may not agree due to rounding.

Participant Data

The table below summarizes the participant data used in the actuarial valuation for the plan year ending June 30, 2008, along with comparable information from last year's valuation. See the Participant Data section of this report for additional information.

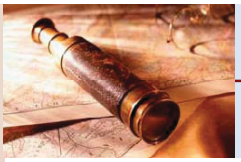
Participant Data		
	2008	2007
Active Members		
Number	16,626	16,099
Total Salaries (in millions)	$1,345	$1,234
Average Annual Salary	$80,889	$76,632
Average Attained Age	41.2	41.0
Average Service	12.3	12.1
Retirees and Beneficiaries		
Number	1,134	924
Average Annual Benefit	$25,489	$23,389
Terminated Members		
Number Vested	649	629
Number "Non-Vested"	1,531	1,433

Key Assumptions

The next table displays key economic assumptions used in the actuarial valuation. These assumptions remain unchanged from the previous year's valuation. See the Actuarial Methods and Assumptions in the Appendices section for a detailed listing of 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



Office of the State Actuary

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Actuarial Certification Letter
Law Enforcement Officers' and Fire Fighters'
Retirement System Plan 2
Actuarial Valuation Report
As of June 30, 2008
November 2009

This report documents the results of an actuarial valuation of the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2 (LEOFF 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 as of the June 30, 2008, valuation date. These contribution requirements are purely informational since, according to state law, this "off-cycle" valuation is not used to determine contribution rates. This valuation also provides information on the funding progress and developments in the plan over the past year. This valuation report 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 produce materially different results.

The assumptions used in this valuation for investment return, inflation, salary growth, and membership growth were prescribed by the Legislature. The LEOFF Plan 2 Retirement Board (the Board) adopted updates to the demographic assumptions as part of their review of the 2001 – 2006 experience study results and adoption of the associated contribution rates. 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 of practice as of the date of this publication.

The Department of Retirement Systems (DRS) provided us with member and beneficiary data. We checked the data for reasonableness as appropriate based on the purpose of the valuation. The Washington State Investment Board (WSIB) and DRS provided financial and asset information. An audit of the financial and participant data was not performed. We 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.

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Actuarial Certification Letter
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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 of WSIB. The combination of the current asset smoothing method with any other funding method or asset allocation policy may not be appropriate.

I caution the reader that the actuarial information contained in this report is outdated due to the significant economic events since June 30, 2008. I recommend you review the Report on Financial Condition as prepared for the Board and available on our website (http://www.osa.leg.wa.gov). The Report on Financial Condition projects valuation results into the future and provides information regarding the impact of the recent asset loss on the funding of the plan.

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

Sincerely,

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

Contribution Rates

Member and Employer Rate Summary		
	2008	2007
Member	7.23%	7.60%
Employer*	4.34%	4.56%
State (Normal Cost)	2.89%	3.04%
State (Plan 1 UAAL)	0.00%	0.00%
Total State	2.89%	3.04%

**Excludes administrative expense rate.*

Development of Employer/State Rates		
a.	Total Normal Cost	14.46%
b.	Employee Normal Cost	7.23%
c.	Total Employer/State Contribution (a-b)	7.23%
d.	State Normal Cost (20% of a)	2.89%
e.	Employer Normal Cost (c-d)	4.34%
f.	Cost to Amortize UAAL	0.00%
g.	Total Employer Contribution Rate (e+f)	**4.34%**

Note: The state pays 20% of the total normal cost for LEOFF 2.

Development of Normal Cost Rates		
(Dollars in millions)		
1. Calculation of Member Rate		
a.	Present Value of Fully Projected Benefits	$6,591
b.	Valuation Assets	5,053
c.	Unfunded Fully Projected Benefits (a - b)	$1,538
	Present Value of Projected Salaries to Current Members (PVS)	
d.	Plan 1 PVS	N/A
e.	Plan 2 PVS	16,472
f.	Weighted PVS (d + 2e)	$32,944
g.	Employee Normal Cost (c / f)	4.67%
h.	Employee Minimum Contribution Rate	7.22%
i.	Employee Contribution Rate with Minimum	7.22%
j.	Change In Plan Provisions (Laws of 2009)	0.01%
k.	Employee Contribution Rate (i + j)	7.23%
2. Calculation of Employer Rate		
a.	Present Value of Fully Projected Benefits	$6,591
b.	Valuation Assets	5,053
c.	Unfunded Fully Projected Benefits (a - b)	1,538
d.	Present Value of Employee Contributions	769
e.	Employer Responsibility (c - d)	$769
f.	Plan 2 PVS	$16,472
g.	Employer Normal Cost (e / f)	4.67%
h.	Employer Minimum Contribution Rate	7.22%
i.	Employer Contribution Rate with Minimum	7.22%
j.	Change In Plan Provisions (Laws of 2009)	0.01%
k.	Total Employer Contribution Rate (i + j)	7.23%
l.	Employee Contribution Rate[1]	7.23%
m.	Employer Contribution Rate (l - n)[1]	4.34%
n.	State Contribution Rate (k * 40%)[1]	2.89%
o.	Total Contribution Rate (l + m + n)	**14.46%**

Note: Totals may not agree due to rounding.

[1] *LEOFF 2 rate: 50% Employee, 30% Employer, 20% State.*

Amortization of the Plan 1 Unfunded Actuarial Accrued Liability (UAAL)		
(Dollars in millions)		**LEOFF 1**
a.	Actuarial Present Value of Fully Projected Benefits	$4,383
b.	Valuation Assets	5,592
c.	Actuarial Present Value of Future Normal Costs	0
d.	UAAL (a - b - c)	(1,209)
e.	Expected UAAL Contributions to 2011	0
f.	Remaining UAAL (d - e)	($1,209)
g.	Amortization Date	6/30/2024
h.	Present Value of Projected Salaries beyond 2011	$14,784
i.	Preliminary Rate (f / h)*	(8.18%)
j.	Change In Plan Provisions (Laws of 2009)	0.00%
k.	Contribution Rate to Amortize the UAAL (i+j)*	(8.18%)

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	
(Dollars in millions)	
Active Members	
Retirement	$4,999
Termination	54
Death	48
Disability	808
Return of Contributions on Termination	67
Return of Contributions on Death	67
Total Active	**$6,044**
Inactive Members	
Terminated	$111
Service Retired	377
Disability Retired	41
Survivors	19
Total Inactive	**$548**

Laws of 2009	**5**
2008 Total	**$6,596**
2007 Total	**$6,149**

Note: Totals may not agree due to rounding.

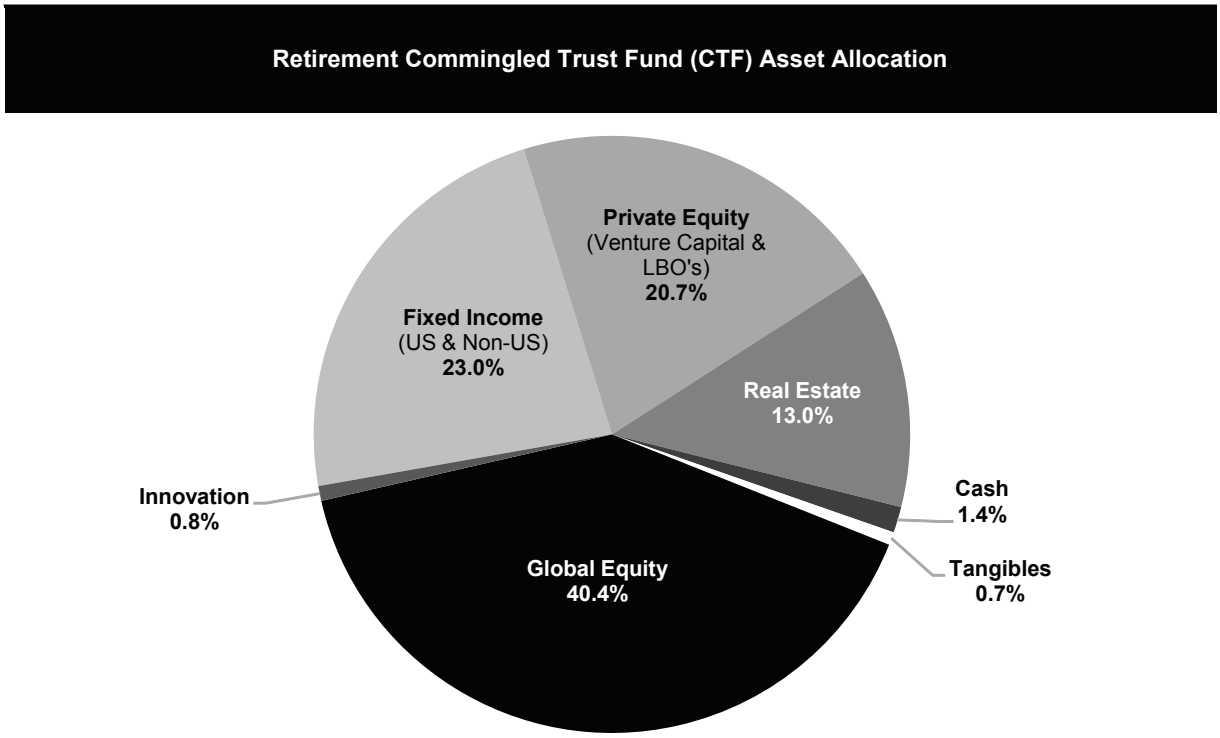
Present Value of Projected Unit Credit Benefits*	
(Dollars in millions)	
Active Members	
Retirement	$2,624
Termination	30
Death	31
Disability	478
Return of Contributions on Termination	36
Return of Contributions on Death	35
Total Active	**$3,235**
Inactive Members	
Terminated	$111
Service Retired	377
Disability Retired	41
Survivors	19
Total Inactive	**$548**

Laws of 2009	**4**
2008 Total	**$3,786**
2007 Total	**$3,386**

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



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.

Innovation: Fund that provides the ability to invest in a broad range of assets that fall outside the traditional asset classes or management style of existing asset classes.

Global Equity: Shares of U.S. and 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.

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.

Tangibles: The tangible asset portfolio invests in sectors such as infrastructure, timber, agriculture, natural resources, commodities, or other sectors consistent with the goals of the asset class.

Change in Market Value of Assets	
(Dollars in millions)	
2007 Market Value	**$5,185**
Revenue	
Contributions	
Employee	$116
Employer/State	119
Total Contributions	235
Investment Return	(70)
Restorations	1
Transfers In	0
Miscellaneous	0
Total Revenue	**$166**
Disbursements	
Withdrawn Annuities	
Monthly Benefits	$28
Refunds	8
Total Benefits	35
Transfers Out	0
Expenses	0
Total Disbursements	**$35**
Payables	$0
2008 Market Value	**$5,315**
2008 Actuarial Value	**$5,053**
Ratio (AV/MV)	**95%**

Note: Totals may not agree due to rounding.

Calculation of Actuarial Value of Assets		
(Dollars in millions)		
a.	Market Value at 6/30/2008	$5,315
b.	Deferred Investment Gains and (Losses)	

Plan Year Ending	Percent Deferred	
6/30/2008	87.50%	($430)
6/30/2007	75.00%	348
9/30/2006	62.50%	178
9/30/2005	50.00%	144
9/30/2004	16.67%	24
9/30/2003	25.00%	39
9/30/2002	12.50%	(40)
Total		$263

c.	Market Value less Deferral (a-b)	$5,053
d.	70% of Market Value of Assets	$3,721
e.	130% of Market Value of Assets	$6,910
f.	**Actuarial Value of Assets***	**$5,053**

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.	2007 Market Value (at WSIB)	$5,173
b.	Total Cash Flow	197
c.	2008 Market Value (at WSIB)	5,300
d.	Actual return (c-b-a)	($70)
e.	Weighted asset amount	$5,267
f.	Expected return (8% x e)	421
g.	Investment Gain/(Loss) for Prior Year (d-f)	($491)
h.	Dollar-weighted rate of return	(1.33%)

Funded Status

We report a plan's funded status by comparing the plan's current assets to the present value of earned pensions of its members. A plan's funded status can vary significantly, depending on the assumptions and methods used to determine the value of the plan's assets and liabilities. For this valuation report, we present two funded status measures. We include information for LEOFF Plan 1 because the prior funding policy required the state to amortize any LEOFF 1 UAAL not later than June 30, 2024, using projected salaries of both LEOFF 1 and LEOFF 2 members.

The first funded status measure compares the Actuarial Value of Assets (AVA) to the Projected Unit Credit (PUC) liabilities calculated using a long-term interest assumption. The second measure compares the Market Value of Assets (MVA) to the PUC liabilities calculated using a short-term interest assumption. The next sections describe these measures in more detail and display the resulting funded status for the plan

Funded Status on an Actuarial Value Basis

The funded status on an actuarial value basis is the ratio of the AVA to the PUC liability calculated using the 8 percent valuation interest rate assumption. We assume the plan is on-going and, therefore, we use the same long-term assumptions to develop the assets and liabilities as we used for determining the contribution requirements of the plan. We don't expect the assumptions to match actual experience over short-term periods. However, we do expect these assumptions to reasonably approximate average annual experience over long-term periods. This measure of funded status is consistent with the state's current funding policy and financing plan for future retirement benefits.

We use an asset valuation method to determine the AVA. This asset valuation method smoothes the inherent volatility in the MVA by deferring a portion of annual investment gains or losses for a certain number of years. Investment gains and losses occur when the annual return on investments varies from the long-term assumed rate of 8 percent. The AVA provides a more stable measure of the plan's assets on an on-going basis.

We use the PUC actuarial cost method to determine the present value of earned pensions. The PUC liabilities are actuarial liabilities based on members' earned service credit as of the valuation date. They include future assumed salary increases and reflect future service credits for determining benefit eligibility. The PUC liabilities are discounted to the valuation date using the valuation interest rate to determine the present value (today's value). The valuation interest rate is consistent with the long-term expected return on invested contributions.

The following table displays the funded status on an actuarial value basis for LEOFF 2.

Funded Status on an Actuarial Value Basis*		
(Dollars in millions)	**LEOFF 2**	**LEOFF 1**
Projected Unit Credit Liability	$3,786	$4,354
Valuation Assets	5,053	5,592
Unfunded Liability	($1,266)	($1,238)

Funded Ratio		
2008**	**133%**	**128%**
2007**	129%	123%
2006**	116%	117%
2005**	114%	114%
2004	117%	109%
2003	125%	112%
2002	137%	119%
2001**	154%	129%
2000**	161%	136%
1999	154%	125%
1998	160%	117%
1997**	155%	108%
1996	130%	89%
1995	126%	80%
1994**	124%	68%
1993	127%	68%
1992	128%	65%
1991	154%	66%
1990	153%	65%
1989**	158%	65%
1988	153%	66%
1987	157%	69%
1986	142%	57%

Note: Totals may not agree due to rounding.

**Liabilities have been valued using an interest rate of 8%.*

***Assumptions changed.*

The present value of actuarial liabilities is sensitive to the interest rate assumption. The following tables show the sensitivity of the funded status to the interest rate assumption. We calculated liabilities using a 7 percent and 9 percent interest rate to show this sensitivity.

Funded Status at a 7% Interest Rate Assumption		
(Dollars in millions)	**LEOFF 2**	**LEOFF 1**
Projected Unit Credit Liability	$4,536	$4,800
Valuation Assets	5,053	5,592
Unfunded Liability	($517)	($792)
Funded Ratio		
2008	**111%**	**117%**
2007	107%	111%

Note: Totals may not agree due to rounding.

Funded Status at a 9% Interest Rate Assumption		
(Dollars in millions)	**LEOFF 2**	**LEOFF 1**
Projected Unit Credit Liability	$3,177	$3,975
Valuation Assets	5,053	5,592
Unfunded Liability	($1,875)	($1,617)
Funded Ratio		
2008	**159%**	**141%**
2007	154%	135%

Note: Totals may not agree due to rounding.

Funded Status on a Market Value Basis

The funded status on a market value basis is the ratio of the MVA to the PUC liability calculated using a 5.5 percent interest rate assumption. The funded status on a market value basis provides a measure of the plan's health if the plan is "settled" or "immunized" on the valuation date. Immunizing a pension plan means attaching assets to liabilities so the assets maturing each year match the expected pension payments due from the plan each year. A plan can be settled by purchasing annuities on the open market for each member, or immunized by investing the assets in bonds with payment streams that match the expected benefit payments.

Because LEOFF 2 is open and on-going, we only present the market value funded status for the closed LEOFF Plan 1. Although LEOFF 1 is closed, it is not settled and has not been immunized. However, there is an opportunity to immunize the plan in the future. LEOFF 1 is considered an on-going plan because current annuitants continue to receive their benefits from the retirement trust fund, and current active members continue to accrue benefits under the plan. However, because the plan is closed to new members, the future benefit payments are more predictable, have a shorter duration, and would be easier to immunize. The decision to settle or immunize LEOFF 1 is complex and would require additional actuarial analysis and information that is outside the scope of this report.

The following table displays the market value funded status for LEOFF 1 as described above.

Funded Status on a Market Value Basis*

(Dollars in millions)	**LEOFF 1**
Projected Unit Credit Liability	$5,632
Market Value of Assets	6,035
Unfunded Liability	($403)

Funded Ratio	
2008	**107%**
2007	114%
2006	102%
2005	94%
2004	82%

Note: Totals may not agree due to rounding.

**Liabilities have been valued using an interest rate of 5.5% while assets are their market value. The 5.5% interest rate approximates the "risk-free" rate of return on assets. This method was not used to determine contribution requirements.*

Both funded status measures vary based on the measurement (valuation) date and the market conditions on that date. The market value measure, however, is more volatile because the asset value has no smoothing and the ability to immunize the plan depends on current bond and annuity purchase rates.

Actuarial Gains/Losses

Change in Employer and State Contribution Rate by Source	
Change in Employer Rate	
2007 Contribution Rate Before Laws of 2008	**(2.78%)**
Remove Rate Floor / Ceiling	(0.72%)
Prior Employer Liability and Plan 1 Funding Method Roll Forward	(0.93%)
2007 Adjusted Contribution Rate	**(4.43%)**
Economic Gains/Losses	(0.62%)
Demographic Gains/Losses	0.29%
Present Value of Future Contributions Gains/Losses	0.00%
Present Value of Future Salaries Gains/Losses	0.12%
Other Gains/Losses	(1.67%)
Total Change	**(1.88%)**
2008 Preliminary Contribution Rate	**(6.31%)**
Increase from Applied Rate Floor	1.02%
Decrease from Applied Rate Ceiling	0.00%
Rate to Amortize Prior Employer Liability	0.00%
Excess Member Rate	N/A
Laws of 2009	0.00%
2008 Adjusted Contribution Rate	**(5.29%)**

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

Change in Employer and State Normal Cost by Source	
Change in Normal Costs	
2007 Normal Cost Before Laws of 2008	**3.04%**
Remove Rate Floor / Ceiling	(0.72%)
Remove Prior Employer Liability	0.00%
2007 Adjusted Normal Cost Rate	**2.32%**
Actuarial Value of Assets	(0.09%)
Contributions	(0.11%)
Disbursements	0.00%
Salaries	0.04%
Economic Gains/Losses	(0.16%)
Termination	0.00%
Retirement	(0.02%)
Growth / Return to Work	0.29%
Other Demographic	0.00%
Demographic Gains/Losses	0.27%
Present Value of Future Salaries Gains/Losses	(0.14%)
Plan Change	(0.01%)
Method Change	(0.01%)
Assumption Change	0.00%
Correction Change	(0.23%)
Miscellaneous Change	(0.17%)
Total Other Gains/Losses	(0.42%)
Total Change	**(0.45%)**
2008 Preliminary Normal Cost	**1.87%**
Increase from Applied Rate Floor	1.02%
Rate to Amortize Prior Employer Liability	0.00%
Excess Member Rate	N/A
Laws of 2009	0.00%
2008 Adjusted Normal Cost	**2.89%**

Note: The LEOFF contribution rate is the state's portion only (20% of the Plan 2 Normal Cost).

Change in State UAAL Rate by Source	
Change in UAAL Rate	
2007 UAAL Rate Before Laws of 2008	**(5.82%)**
Remove Rate Floor / Ceiling	0.00%
Roll Forward Funding Method	(0.93%)
2007 Adjusted UAAL Rate	**(6.75%)**
Actuarial Value of Assets	(0.73%)
Contributions	(0.01%)
Disbursements	0.00%
Salaries	0.02%
Inflation (CPI)	0.26%
Economic Gains/Losses	(0.46%)
Termination	0.00%
Retirement	(0.03%)
Return to Work	0.02%
Other Demographic	0.03%
Demographic Gains/Losses	0.02%
Present Value of Future Contributions Gains/Losses	0.00%
Present Value of Future Salaries Gains/Losses	0.26%
Plan Change	0.00%
Method Change	0.00%
Assumption Change	(0.16%)
Correction Change	0.00%
Miscellaneous Change	(1.09%)
Total Other Gains/Losses	(1.25%)
Total Change	**(1.43%)**
2008 Preliminary UAAL Rate	**(8.18%)**
Increase from Applied Rate Floor	N/A
Decrease from Applied Rate Ceiling	0.00%
Rate to Amortize Prior Employer Liability	0.00%
Laws of 2009	0.00%
2008 Adjusted UAAL Rate	**(8.18%)**

Note: The state UAAL rate is the state contribution rate for the Plan 1 UAAL. The plan has a surplus of assets over liabilities, so no 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

- LEOFF 2 Domestic Partners (Chapter 523, Laws of 2009).
- Department of Fish and Wildlife Enforcement Officers (Chapter 157, Laws of 2009).
- Interruptive Military Service Credit (Chapter 205, Laws of 2009).
- Military Death Benefits (Chapter 226, Laws of 2009).
- LEOFF 2 Duty Disability Reclassification (Chapter 95, Laws of 2009).

Assumption Changes

None.

Method Changes

- We now value portability (dual membership provisions) based on the actual salary and service of the affected members. In the previous valuation we approximated the cost using a load.

Effect of Changes on the Current Valuation

The table on the following 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	$6,831
Present Value of Projected Unit Credit Benefits	3,855
Actuarial Value of Assets	5,053
Unfunded Liability	($1,198)
Employer Contribution Rate	**4.58%**
After Changes	
Present Value of Fully Projected Benefits	$6,596
Present Value of Projected Unit Credit Benefits	3,786
Actuarial Value of Assets	5,053
Unfunded Liability	($1,266)
Employer Contribution Rate	**4.34%**
Increase/(Decrease) in Rate	**(0.24%)**

Note: Before and after changes include actuarial gains and losses for the year ending 6/30/2008. The LEOFF contribution rate is the Employer's portion only (30% of the Plan 2 Normal Cost). Both before and after contribution rates include rate minimums.

Participant Data

Participant Data

Overview of System Membership

LEOFF 2 - 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	112
Higher Education	111
Community Colleges	0
K-12	0
Counties	2,921
County Sub Divisions	46
First Class Cities	4,936
Other Cities	5,193
Ports	171
Education Service District	0
Fire Districts	3,136
Public Utility District	0
Water Districts	0
Energy Northwest	0
Unions	0
TOTAL	**16,626**

The following table summarizes participant data changes from last year's valuation to this year's valuation. We divide the participant data into two main categories.

- Actives - members accruing benefits in the plan.
- Annuitants - members and beneficiaries receiving benefits from the plan.

Reconciliation of Participant Data	
2007 Actives	16,099
Transfers	0
Hires/Rehires	1,059
New Retirees	(147)
Deaths	(14)
Terminations	(371)
2008 Actives	**16,626**
2007 Annuitants	924
New Retirees	219
Annuitant Deaths	(14)
New Survivors	8
Other	(3)
2008 Annuitants	**1,134**
Ratio of Actives to Annuitants	**14.66**

Summary of Plan Participants

Summary of Plan Participants		
	2008	**2007**
Active Members		
Number	16,626	16,099
Total Salaries (millions)	$1,345	$1,234
Average Age	41.2	41.0
Average Service	12.3	12.1
Average Salary	$80,889	$76,632
Terminated Members		
Number Vested	649	629
Number "Non-Vested"	1,531	1,433
Retirees		
Number of Retirees (All)	1,134	924
Average Monthly Benefit, All Retirees	$2,124	$1,949
Number of New "Service Retirees"	188	124
Average Monthly Benefit, New "Service Retirees"	$2,652	$2,516

Appendices

Appendices

Actuarial Methods and Assumptions

Actuaries combine a set of assumptions with a plan's participant data and benefit provisions to project future benefit obligations. The assumptions fall into two categories:

- **Economic Assumptions:** These generally include the annual rate of return on plan assets, annual rate of inflation, annual rate of salary growth, and annual rate of growth in system membership. The economic assumptions used in this actuarial valuation are shown in the following table.

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%

[1] *Annual rate, compounded quarterly.*

[2] *Annual rate, compounded annually.*

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

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

[5] *Based on the CPI (3% maximum per year).*

- **Demographic Assumptions:** These include rates of retirement, rates at which members become disabled, turnover rates, mortality rates, and several other demographic assumptions as disclosed later in this section.

The future benefit obligations (or costs of the plan) are spread over the working lifetimes of the plan members based on the actuarial cost method (or funding method) in place for that particular plan. This produces a future stream of contributions to pre-fund the plan's benefits. Different cost methods pre-fund plans at different rates. Some put more money in earlier whereas others put more money in later.

Actuarial cost methods generally have two parts, which serve to:

- Fund future benefits in a consistent manner from year to year.
- Make up for any shortfalls in prior funding, including differences in funding when experience differs from assumptions.

The two parts of an actuarial cost method are:

- The Normal Cost – the value of future benefits earned in the current plan year.

- Amortization of the Unfunded Actuarial Accrued Liability (UAAL) – the amount of past service liability that exceeds the value of the plan's assets.

The actuarial cost methods used for LEOFF are as follows:

LEOFF 1: A variation of the Frozen Initial Liability Cost Method is used to determine the normal cost and the actuarial accrued liability for retirement, termination, and ancillary benefits. Under this method, the Unfunded Actuarial Accrued Liability (UAAL) is equal to the unfunded actuarial present value of projected benefits less the actuarial present value of future normal costs for all active members and is reset at each valuation date. The present value of future normal costs is based on the Aggregate normal cost rate for Plan 2 and the resulting UAAL is amortized by June 30, 2024, as a level percentage of projected system payroll. The projected payroll includes pay from Plan 2 as well as projected payroll from future new entrants.

LEOFF 2: We use the Aggregate Cost Method to determine the normal cost and the actuarial accrued liability. Under this method, the unfunded actuarial present value of fully projected benefits is amortized over the future payroll of the active group. Members pay 50 percent of the total normal cost. The entire contribution is considered normal cost and no UAAL exists.

The Projected Unit Credit (PUC) cost method is used to calculate the plan's funded status and is consistent with governmental accounting standards. The PUC cost method projects future benefits under the plan, using salary growth and other assumptions, and applies the service that has been earned as of the valuation date to determine accrued liabilities. Comparing the PUC liabilities to the assets currently held in the trust provides an appropriate measure of a plan's funded status. Please see the Glossary for a further explanation of the PUC cost method.

We use the plan's assets to calculate contribution rates, unfunded liabilities, and the plan's funded status. Because the market value of assets can be volatile from one year to the next, an asset valuation method is generally used to adjust the market value of assets and smooth the effects of short-term volatility. The adjusted assets are called the actuarial value of assets, or valuation assets.

For this valuation, we calculate the actuarial value of assets using an asset smoothing method. This smoothing method was adopted during the 2003 Legislative Session. At that time, we first set the actuarial value of assets equal to the market value of assets. Each year, beginning with the adoption of this smoothing method, we determine the amount the actual investment return exceeds (or falls below) the expected investment return and we smooth that year's gain (or loss) based on the scale in the following table.

Annual Gain/Loss		
Rate of Return	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, to ensure the actuarial value of assets maintains a reasonable relationship to the market value of assets, a 30 percent corridor is in place. This means the actuarial value of assets may not exceed 130 percent nor drop below 70 percent of the market value of assets in any valuation.

Changes in Methods and Assumptions since the Last Valuation

- We implemented a new method for valuing portability (dual membership) benefits for the 2008 valuation.
- Beginning with the 2008 valuation, disability rates continue after members become eligible for service retirement.

No assumptions or methods changed from the last valuation as a result of legislation in the 2009 session.

Demographic Assumptions

Combined Healthy Table					
RP-2000 Mortality Rates			50% Scale AA		
Age	Male	Female	Age	Male	Female
20	0.000345	0.000191	20	0.009500	0.008000
21	0.000357	0.000192	21	0.009000	0.008500
22	0.000366	0.000194	22	0.008500	0.008500
23	0.000373	0.000197	23	0.007500	0.008000
24	0.000376	0.000201	24	0.006500	0.007500
25	0.000376	0.000207	25	0.005000	0.007000
26	0.000378	0.000214	26	0.003000	0.006000
27	0.000382	0.000223	27	0.002500	0.006000
28	0.000393	0.000235	28	0.002500	0.006000
29	0.000412	0.000248	29	0.002500	0.006000
30	0.000444	0.000264	30	0.002500	0.005000
31	0.000499	0.000307	31	0.002500	0.004000
32	0.000562	0.000350	32	0.002500	0.004000
33	0.000631	0.000394	33	0.002500	0.004500
34	0.000702	0.000435	34	0.002500	0.005000
35	0.000773	0.000475	35	0.002500	0.005500
36	0.000841	0.000514	36	0.002500	0.006000
37	0.000904	0.000554	37	0.002500	0.006500
38	0.000964	0.000598	38	0.003000	0.007000
39	0.001021	0.000648	39	0.003500	0.007500
40	0.001079	0.000706	40	0.004000	0.007500
41	0.001142	0.000774	41	0.004500	0.007500
42	0.001215	0.000852	42	0.005000	0.007500
43	0.001299	0.000937	43	0.005500	0.007500
44	0.001397	0.001029	44	0.006000	0.007500
45	0.001508	0.001124	45	0.006500	0.008000
46	0.001616	0.001223	46	0.007000	0.008500
47	0.001734	0.001326	47	0.007500	0.009000
48	0.001860	0.001434	48	0.008000	0.009000
49	0.001995	0.001550	49	0.008500	0.009000
50	0.002138	0.001676	50	0.009000	0.008500
51	0.002449	0.001852	51	0.009500	0.008000
52	0.002667	0.002018	52	0.010000	0.007000
53	0.002916	0.002207	53	0.010000	0.006000
54	0.003196	0.002424	54	0.010000	0.005000
55	0.003624	0.002717	55	0.009500	0.004000
56	0.004200	0.003090	56	0.009000	0.003000
57	0.004693	0.003478	57	0.008500	0.002500
58	0.005273	0.003923	58	0.008000	0.002500
59	0.005945	0.004441	59	0.008000	0.002500
60	0.006747	0.005055	60	0.008000	0.002500
61	0.007676	0.005814	61	0.007500	0.002500
62	0.008757	0.006657	62	0.007500	0.002500
63	0.010012	0.007648	63	0.007000	0.002500
64	0.011280	0.008619	64	0.007000	0.002500
65	0.012737	0.009706	65	0.007000	0.002500
66	0.014409	0.010954	66	0.006500	0.002500
67	0.016075	0.012163	67	0.006500	0.002500
68	0.017871	0.013445	68	0.007000	0.002500
69	0.019802	0.014860	69	0.007000	0.002500

Combined Healthy Table					
RP-2000 Mortality Rates			50% Scale AA		
Age	Male	Female	Age	Male	Female
70	0.022206	0.016742	70	0.007500	0.002500
71	0.024570	0.018579	71	0.007500	0.003000
72	0.027281	0.020665	72	0.007500	0.003000
73	0.030387	0.022970	73	0.007500	0.003500
74	0.033900	0.025458	74	0.007500	0.003500
75	0.037834	0.028106	75	0.007000	0.004000
76	0.042169	0.030966	76	0.007000	0.004000
77	0.046906	0.034105	77	0.006500	0.003500
78	0.052123	0.037595	78	0.006000	0.003500
79	0.057927	0.041506	79	0.005500	0.003500
80	0.064368	0.045879	80	0.005000	0.003500
81	0.072041	0.050780	81	0.004500	0.003500
82	0.080486	0.056294	82	0.004000	0.003500
83	0.089718	0.062506	83	0.004000	0.003500
84	0.099779	0.069517	84	0.003500	0.003500
85	0.110757	0.077446	85	0.003500	0.003000
86	0.122797	0.086376	86	0.003500	0.002500
87	0.136043	0.096337	87	0.003000	0.002000
88	0.150590	0.107303	88	0.002500	0.002000
89	0.166420	0.119154	89	0.002500	0.001500
90	0.183408	0.131682	90	0.002000	0.001500
91	0.199769	0.144604	91	0.002000	0.001500
92	0.216605	0.157618	92	0.001500	0.001500
93	0.233662	0.170433	93	0.001500	0.001000
94	0.250693	0.182799	94	0.001500	0.001000
95	0.267491	0.194509	95	0.001000	0.001000
96	0.283905	0.205379	96	0.001000	0.001000
97	0.299852	0.215240	97	0.001000	0.000500
98	0.315296	0.223947	98	0.000500	0.000500
99	0.330207	0.231387	99	0.000500	0.000500
100	0.344556	0.237467	100	0.000500	0.000500
101	0.358628	0.244834	101	0.000000	0.000000
102	0.371685	0.254498	102	0.000000	0.000000
103	0.383040	0.266044	103	0.000000	0.000000
104	0.392003	0.279055	104	0.000000	0.000000
105	0.397886	0.293116	105	0.000000	0.000000
106	0.400000	0.307811	106	0.000000	0.000000
107	0.400000	0.322725	107	0.000000	0.000000
108	0.400000	0.337441	108	0.000000	0.000000
109	0.400000	0.351544	109	0.000000	0.000000
110	0.400000	0.364617	110	0.000000	0.000000

Scale AA represents annual improvements in mortality rates

	Projected Mortality				Projected Disabled Mortality				
	LEOFF				LEOFF				
	Plan 1 - 2019*		Plan 2 - 2034*		Plan 1 - 2019*		Plan 2 - 2034*		
	Male	Female	Male	Female	Male	Female	Male	Female	
Offsets	-1	1	-1	1	2	2	0	0	
Age									Age
20	0.000288	0.000165	0.000249	0.000146	0.000306	0.000166	0.016316	0.005670	20
21	0.000290	0.000165	0.000253	0.000145	0.000316	0.000168	0.016598	0.005573	21
22	0.000303	0.000168	0.000267	0.000148	0.000322	0.000171	0.016885	0.005573	22
23	0.000316	0.000173	0.000282	0.000153	0.000328	0.000178	0.017474	0.005670	23
24	0.000329	0.000180	0.000298	0.000160	0.000337	0.000186	0.018082	0.005768	24
25	0.000340	0.000188	0.000316	0.000169	0.000350	0.000196	0.019034	0.005867	25
26	0.000353	0.000199	0.000337	0.000182	0.000372	0.000210	0.020379	0.006071	26
27	0.000360	0.000210	0.000347	0.000192	0.000393	0.000221	0.020730	0.006071	27
28	0.000364	0.000221	0.000351	0.000202	0.000423	0.000236	0.020730	0.006071	28
29	0.000375	0.000236	0.000361	0.000216	0.000476	0.000275	0.020730	0.006071	29
30	0.000393	0.000280	0.000378	0.000260	0.000536	0.000319	0.020730	0.006283	30
31	0.000423	0.000324	0.000408	0.000305	0.000602	0.000365	0.020730	0.006501	31
32	0.000476	0.000365	0.000458	0.000343	0.000669	0.000402	0.020730	0.006501	32
33	0.000536	0.000399	0.000516	0.000373	0.000737	0.000435	0.020730	0.006391	33
34	0.000602	0.000431	0.000580	0.000400	0.000802	0.000466	0.020730	0.006283	34
35	0.000669	0.000462	0.000645	0.000425	0.000862	0.000497	0.020730	0.006176	35
36	0.000737	0.000493	0.000710	0.000451	0.000918	0.000532	0.020730	0.006071	36
37	0.000802	0.000528	0.000772	0.000478	0.000971	0.000571	0.020730	0.005968	37
38	0.000855	0.000566	0.000817	0.000510	0.001016	0.000617	0.020379	0.005867	38
39	0.000903	0.000612	0.000857	0.000547	0.001065	0.000671	0.020035	0.005768	39
40	0.000948	0.000671	0.000892	0.000599	0.001123	0.000738	0.019696	0.005768	40
41	0.000992	0.000738	0.000927	0.000660	0.001189	0.000812	0.019362	0.005768	41
42	0.001040	0.000812	0.000965	0.000725	0.001266	0.000892	0.019034	0.005768	42
43	0.001096	0.000892	0.001009	0.000797	0.001354	0.000973	0.018712	0.005768	43
44	0.001160	0.000973	0.001060	0.000869	0.001437	0.001057	0.018394	0.005768	44
45	0.001236	0.001048	0.001121	0.000929	0.001527	0.001135	0.018082	0.005670	45
46	0.001322	0.001126	0.001189	0.000990	0.001623	0.001217	0.018781	0.006122	46
47	0.001403	0.001208	0.001253	0.001055	0.001724	0.001305	0.019450	0.006588	47
48	0.001491	0.001305	0.001322	0.001140	0.001830	0.001414	0.020094	0.007188	48
49	0.001584	0.001414	0.001394	0.001234	0.002076	0.001564	0.020712	0.007820	49
50	0.001683	0.001577	0.001469	0.001388	0.002239	0.001724	0.021307	0.008629	50
51	0.001786	0.001738	0.001548	0.001540	0.002429	0.001906	0.021879	0.009495	51
52	0.002026	0.001937	0.001743	0.001743	0.002640	0.002134	0.022427	0.010597	52
53	0.002203	0.002169	0.001895	0.001981	0.002999	0.002438	0.023348	0.011788	53
54	0.002409	0.002478	0.002072	0.002298	0.003480	0.002826	0.024267	0.013069	54
55	0.002662	0.002872	0.002307	0.002704	0.003926	0.003238	0.025619	0.014436	55
56	0.003047	0.003290	0.002661	0.003145	0.004454	0.003711	0.027012	0.015889	56
57	0.003566	0.003741	0.003137	0.003603	0.005063	0.004235	0.028447	0.017132	57
58	0.004023	0.004235	0.003566	0.004079	0.005792	0.004820	0.029934	0.018102	58
59	0.004527	0.004820	0.004013	0.004643	0.006600	0.005544	0.030949	0.019074	59
60	0.005104	0.005544	0.004524	0.005340	0.007529	0.006348	0.031995	0.020057	60
61	0.005839	0.006348	0.005215	0.006114	0.008691	0.007293	0.033656	0.021065	61
62	0.006653	0.007293	0.005943	0.007024	0.009791	0.008219	0.034823	0.022115	62
63	0.007651	0.008219	0.006886	0.007916	0.011146	0.009255	0.036687	0.023229	63
64	0.008761	0.009255	0.007885	0.008914	0.012628	0.010445	0.038044	0.024430	64
65	0.009871	0.010445	0.008883	0.010060	0.014088	0.011598	0.039514	0.025739	65
66	0.011236	0.011598	0.010189	0.011171	0.015765	0.012821	0.041830	0.027180	66
67	0.012730	0.012821	0.011544	0.012348	0.017468	0.014170	0.043622	0.028769	67
68	0.014088	0.014170	0.012679	0.013648	0.019402	0.015964	0.044818	0.030523	68
69	0.015638	0.015964	0.014074	0.015376	0.021468	0.017689	0.046948	0.032452	69

Projected Mortality *(Continued)*					Projected Disabled Mortality *(Continued)*				
LEOFF					LEOFF				
	Plan 1 - 2019*		Plan 2 - 2034*		Plan 1 - 2019*		Plan 2 - 2034*		
	Male	Female	Male	Female	Male	Female	Male	Female	
Offsets	-1	1	-1	1	2	2	0	0	
Age									Age
70	0.017189	0.017689	0.015353	0.017038	0.023645	0.019676	0.048450	0.034565	70
71	0.019246	0.019518	0.017191	0.018658	0.026337	0.021663	0.050972	0.036242	71
72	0.021295	0.021663	0.019021	0.020708	0.029382	0.024009	0.053731	0.038690	72
73	0.023645	0.023817	0.021120	0.022597	0.032841	0.026255	0.056741	0.040626	73
74	0.026337	0.026255	0.023525	0.024910	0.036604	0.028927	0.060008	0.043400	74
75	0.029620	0.028695	0.026657	0.027021	0.041107	0.031652	0.064631	0.045576	75
76	0.033107	0.031652	0.029796	0.029805	0.045748	0.034891	0.068478	0.048671	76
77	0.037199	0.035172	0.033732	0.033370	0.051331	0.038831	0.073824	0.052853	77
78	0.041775	0.038831	0.038169	0.036842	0.057587	0.042922	0.079573	0.056404	78
79	0.046867	0.042922	0.043146	0.040723	0.065070	0.047507	0.085714	0.060175	79
80	0.052585	0.047507	0.048777	0.045073	0.073395	0.052666	0.092234	0.064186	80
81	0.058993	0.052666	0.055134	0.049968	0.082474	0.058478	0.099118	0.068467	81
82	0.066658	0.058478	0.062769	0.055482	0.092602	0.065037	0.106350	0.073050	82
83	0.074584	0.065037	0.070232	0.061705	0.102790	0.072564	0.111993	0.077967	83
84	0.083810	0.072564	0.079516	0.068846	0.114883	0.081053	0.119761	0.083254	84
85	0.093349	0.081706	0.088566	0.078106	0.127467	0.091266	0.125690	0.090472	85
86	0.103619	0.092001	0.098310	0.088610	0.141310	0.102473	0.131700	0.098361	86
87	0.115809	0.103298	0.110706	0.100242	0.157422	0.114879	0.140160	0.106977	87
88	0.129529	0.114879	0.124756	0.111481	0.175153	0.126958	0.148954	0.114405	88
89	0.143596	0.127979	0.138304	0.125130	0.190777	0.140538	0.155426	0.124455	89
90	0.159968	0.140538	0.155235	0.137409	0.208834	0.153186	0.171339	0.133080	90
91	0.176563	0.153186	0.171339	0.149775	0.225279	0.165890	0.186624	0.142249	91
92	0.193860	0.165890	0.189544	0.162196	0.243644	0.177926	0.205827	0.151967	92
93	0.210514	0.179357	0.205827	0.176685	0.260360	0.190846	0.222036	0.164733	93
94	0.227092	0.190846	0.222036	0.188004	0.276337	0.201512	0.238219	0.176685	94
95	0.245603	0.201512	0.241945	0.198510	0.294206	0.211504	0.258545	0.188004	95
96	0.262454	0.211504	0.258545	0.208354	0.309824	0.220060	0.274410	0.198510	96
97	0.278559	0.221829	0.274410	0.220171	0.324476	0.229199	0.289823	0.211611	97
98	0.296571	0.229199	0.294354	0.227486	0.341810	0.235574	0.309980	0.220171	98
99	0.312314	0.235574	0.309980	0.233814	0.355770	0.242883	0.324640	0.227486	99
100	0.329712	0.244834	0.329712	0.244834	0.371685	0.254498	0.344556	0.237467	100
101	0.344556	0.254498	0.344556	0.254498	0.383040	0.266044	0.358628	0.244834	101
102	0.358628	0.266044	0.358628	0.266044	0.392003	0.279055	0.371685	0.254498	102
103	0.371685	0.279055	0.371685	0.279055	0.397886	0.293116	0.383040	0.266044	103
104	0.383040	0.293116	0.383040	0.293116	0.400000	0.307811	0.392003	0.279055	104
105	0.392003	0.307811	0.392003	0.307811	0.400000	0.322725	0.397886	0.293116	105
106	0.397886	0.322725	0.397886	0.322725	0.400000	0.337441	0.400000	0.307811	106
107	0.400000	0.337441	0.400000	0.337441	0.400000	0.351544	0.400000	0.322725	107
108	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000	0.337441	108
109	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	109
110	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	110

Improvements in mortality are projected to the year specified for each plan based on 50% of Scale AA.

Service Retirement			Disablement		Ratio of Survivors Selecting Annuities*		
	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	
Age	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Age
20	0.00	0.00	0.0010	0.0010	0.00	0.00	20
21	0.00	0.00	0.0010	0.0010	0.00	0.00	21
22	0.00	0.00	0.0010	0.0010	0.00	0.00	22
23	0.00	0.00	0.0010	0.0010	0.00	0.00	23
24	0.00	0.00	0.0010	0.0011	0.00	0.00	24
25	0.00	0.00	0.0010	0.0011	0.00	0.00	25
26	0.00	0.00	0.0024	0.0011	0.00	0.00	26
27	0.00	0.00	0.0038	0.0011	0.00	0.00	27
28	0.00	0.00	0.0052	0.0012	0.00	0.00	28
29	0.00	0.00	0.0066	0.0012	0.00	0.00	29
30	0.00	0.00	0.0080	0.0012	0.00	0.00	30
31	0.00	0.00	0.0094	0.0013	0.00	0.00	31
32	0.00	0.00	0.0107	0.0014	0.00	0.00	32
33	0.00	0.00	0.0121	0.0015	0.00	0.00	33
34	0.00	0.00	0.0135	0.0016	0.00	0.00	34
35	0.00	0.00	0.0149	0.0017	0.00	0.07	35
36	0.00	0.00	0.0163	0.0018	0.00	0.07	36
37	0.00	0.00	0.0190	0.0019	0.00	0.07	37
38	0.00	0.00	0.0205	0.0020	0.00	0.07	38
39	0.00	0.00	0.0220	0.0021	0.00	0.07	39
40	0.00	0.00	0.0235	0.0023	0.56	0.16	40
41	0.00	0.00	0.0249	0.0024	0.56	0.16	41
42	0.00	0.00	0.0264	0.0025	0.56	0.16	42
43	0.00	0.00	0.0279	0.0027	0.56	0.16	43
44	0.00	0.00	0.0360	0.0028	0.56	0.16	44
45	0.00	0.00	0.0400	0.0030	0.56	0.26	45
46	0.00	0.00	0.0468	0.0038	0.56	0.26	46
47	0.00	0.00	0.0532	0.0049	0.56	0.26	47
48	0.00	0.00	0.0592	0.0062	0.56	0.26	48
49	0.00	0.00	0.0648	0.0080	0.56	0.26	49

Rates have been rounded for display purposes.

**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 Retirement (Continued)			Disablement (Continued)		Ratio of Survivors Selecting Annuities* (Continued)		
	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	
Age	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Male & Female	Age
50	0.07	0.04	0.0700	0.0102	0.56	0.30	50
51	0.07	0.04	0.0748	0.0121	0.56	0.30	51
52	0.07	0.04	0.0792	0.0144	0.56	0.30	52
53	0.07	0.08	0.0832	0.0171	0.56	0.30	53
54	0.11	0.10	0.0868	0.0203	0.56	0.30	54
55	0.12	0.13	0.0900	0.0241	0.56	0.39	55
56	0.12	0.13	0.0928	0.0241	0.56	0.39	56
57	0.15	0.13	0.0952	0.0241	0.56	0.39	57
58	0.16	0.18	0.0972	0.0241	0.56	0.39	58
59	0.16	0.18	0.0988	0.0241	0.56	0.39	59
60	0.23	0.18	0.1000	0.0241	0.56	0.53	60
61	0.25	0.23	0.1008	0.0241	0.56	0.53	61
62	0.25	0.23	0.1012	0.0241	0.56	0.53	62
63	0.25	0.23	0.1012	0.0241	0.56	0.53	63
64	0.25	0.23	0.1008	0.0241	0.56	0.53	64
65	0.25	0.23	0.1000	0.0241	0.56	0.53	65
66	0.25	0.23	0.0756	0.0241	0.56	0.53	66
67	0.25	0.23	0.0544	0.0241	0.56	0.53	67
68	0.25	0.23	0.0364	0.0241	0.56	0.53	68
69	0.25	0.23	0.0216	0.0241	0.56	0.53	69
70	1.00	1.00	0.0000	0.0000	0.56	0.53	70
71	1.00	1.00	0.0000	0.0000	0.56	0.53	71
72	1.00	1.00	0.0000	0.0000	0.56	0.53	72
73	1.00	1.00	0.0000	0.0000	0.56	0.53	73
74	1.00	1.00	0.0000	0.0000	0.56	0.53	74
75	1.00	1.00	0.0000	0.0000	0.56	0.53	75
76	1.00	1.00	0.0000	0.0000	0.56	0.53	76
77	1.00	1.00	0.0000	0.0000	0.56	0.53	77
78	1.00	1.00	0.0000	0.0000	0.56	0.53	78
79	1.00	1.00	0.0000	0.0000	0.56	0.53	79
80+	1.00	1.00	0.0000	0.0000	0.56	0.53	80+

Rates have been rounded for display purposes.
**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.

Termination			Percent Vested*		Step Salary Increases		
	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF		
Service Years	Male & Female	Male & Female	Male & Female	Male & Female	Percent Increase	Salary Ratio	Service Years
0	0.1072	0.1062	0.00	0.00	11.00%	1.840	0
1	0.0482	0.0472	0.00	0.00	11.00%	1.657	1
2	0.0246	0.0236	0.00	0.00	7.70%	1.493	2
3	0.0217	0.0208	0.00	0.00	6.10%	1.386	3
4	0.0206	0.0196	0.00	0.00	4.00%	1.307	4
5	0.0198	0.0188	1.00	0.24	2.80%	1.256	5
6	0.0194	0.0184	1.00	0.24	2.00%	1.222	6
7	0.0193	0.0184	1.00	0.24	1.60%	1.198	7
8	0.0180	0.0170	1.00	0.24	1.50%	1.179	8
9	0.0175	0.0166	1.00	0.24	1.40%	1.162	9
10	0.0172	0.0162	1.00	0.24	1.70%	1.146	10
11	0.0153	0.0143	1.00	0.24	1.30%	1.127	11
12	0.0151	0.0141	1.00	0.24	1.30%	1.112	12
13	0.0145	0.0135	1.00	0.27	1.30%	1.098	13
14	0.0116	0.0106	1.00	0.27	1.30%	1.084	14
15	0.0108	0.0098	1.00	0.27	1.30%	1.070	15
16	0.0106	0.0096	1.00	0.27	1.10%	1.056	16
17	0.0085	0.0075	1.00	0.33	1.10%	1.045	17
18	0.0087	0.0077	1.00	0.44	1.10%	1.033	18
19	0.0086	0.0077	1.00	0.44	1.10%	1.022	19
20	0.0088	0.0078	1.00	0.69	1.10%	1.011	20
21	0.0085	0.0076	1.00	0.82	0.00%	1.000	21
22	0.0082	0.0072	1.00	0.88	0.00%	1.000	22
23	0.0076	0.0066	1.00	0.91	0.00%	1.000	23
24	0.0072	0.0063	1.00	0.91	0.00%	1.000	24

Rates have been rounded for display purposes.

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

Termination (Continued)			Percent Vested* (Continued)		Step Salary Increases (Continued)		
	LEOFF 1	LEOFF 2	LEOFF 1	LEOFF 2	LEOFF		
Service Years	Male & Female	Male & Female	Male & Female	Male & Female	Percent Increase	Salary Ratio	Service Years
25	0.0067	0.0057	1.00	0.91	0.00%	1.000	25
26	0.0077	0.0067	1.00	0.91	0.00%	1.000	26
27	0.0070	0.0061	1.00	0.91	0.00%	1.000	27
28	0.0062	0.0052	1.00	0.91	0.00%	1.000	28
29	0.0018	0.0009	1.00	0.91	0.00%	1.000	29
30	0.0016	0.0007	1.00	0.91	0.00%	1.000	30
31	0.0016	0.0007	1.00	0.91	0.00%	1.000	31
32	0.0016	0.0007	1.00	0.91	0.00%	1.000	32
33	0.0016	0.0007	1.00	0.91	0.00%	1.000	33
34	0.0016	0.0007	1.00	0.91	0.00%	1.000	34
35	0.0016	0.0007	1.00	0.91	0.00%	1.000	35
36	0.0016	0.0007	1.00	0.91	0.00%	1.000	36
37	0.0016	0.0007	1.00	0.91	0.00%	1.000	37
38	0.0016	0.0007	1.00	0.91	0.00%	1.000	38
39	0.0016	0.0007	1.00	0.91	0.00%	1.000	39
40	0.0016	0.0007	1.00	0.91	0.00%	1.000	40
41	0.0016	0.0007	1.00	0.91	0.00%	1.000	41
42	0.0016	0.0007	1.00	0.91	0.00%	1.000	42
43	0.0016	0.0007	1.00	0.91	0.00%	1.000	43
44	0.0016	0.0007	1.00	0.91	0.00%	1.000	44
45	0.0016	0.0007	1.00	0.91	0.00%	1.000	45
46	0.0016	0.0007	1.00	0.91	0.00%	1.000	46
47	0.0016	0.0007	1.00	0.91	0.00%	1.000	47
48	0.0016	0.0007	1.00	0.91	0.00%	1.000	48
49	0.0016	0.0007	1.00	0.91	0.00%	1.000	49
50	0.0016	0.0007	1.00	0.91	0.00%	1.000	50

Rates have been rounded for display purposes.

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

Certain and Life Annuities: Years Certain	
LEOFF 1	3
LEOFF 2	5

Member/Beneficiary Age Difference (In Years)		
	Male Member	Female Member
LEOFF	3	(2)

Age difference is Member age minus Beneficiary age.

Duty-Related Death Assumption	
	Duty Death Rate*
LEOFF 1	0.0376%
LEOFF 2	0.0376%

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

Duty-Related Disability Assumption	
Age	Duty Disability Rate*
20	99.94%
25	99.91%
30	99.84%
35	99.81%
40	99.67%
50	99.23%
55+	99.33%

**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	14.742%
50-69	27.393%

Miscellaneous Assumptions/Methods

We include the following miscellaneous assumptions and methods in this valuation:

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

	Non-Annuitants	Annuitants
Minimum Age	16	20
Maximum Age	80	110

- 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 in the valuation data. Beginning with the 2008 valuation year, we first look to see if we kept an historical salary for such a member in the prior year's data. If so, we copy the salary to the current year's data. If a member was active in the prior year and terminated in the current year, we copy the prior year's salary to the current year's salary and keep it as historical.

  To estimate salaries for the remaining terminated vested members, we use the following procedure: First, a salary appropriate for LEOFF 2 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.
- LEOFF 2 uses a midyear decrement timing assumption.
- 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 Securty 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	Military Service Credit (C 205 L 09); Military Death Benefits (C 226 L 09); Disability Reclassification (C 95 L 09); DFW Service Credit Transfer (C 157 L 09); Domestic Partners (C 523 L 09)

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

Early Retirement Factors		
Years Early	LEOFF 2*	Subsidized 3%**
0	1.0000	1.00
1	0.9200	0.97
2	0.8400	0.94
3	0.7600	0.91
4	0.7100	N/A
5	0.6600	N/A
6	0.6100	N/A
7	0.5600	N/A
8	0.5100	N/A
9	0.4700	N/A
10	0.4300	N/A
11	0.3900	N/A
12	0.3500	N/A
13	0.3100	N/A
14	0.2900	N/A
15	0.2700	N/A
16	0.2500	N/A
17	0.2300	N/A
18	0.2100	N/A
19	0.2000	N/A
20	0.1900	N/A
21	0.1800	N/A
22	0.1700	N/A
23	0.1600	N/A
24	0.1500	N/A
25	0.1400	N/A
26	0.1300	N/A
27	0.1200	N/A
28	0.1100	N/A
29	0.1000	N/A
30+	0.1000	N/A

*Only applies to non-duty disabilities and deaths.
***LEOFF 2 members must be at least age 50 with 20 or more years of service to qualify.*

Projected Benefit Payments

Projected Benefit Payments					
LEOFF - Plan 2					
($ in Millions) Year	Projected Value	Present Value	Year	Projected Value	Present Value
2008	$50	$48	2058	$1,165	$24
2009	66	59	2059	1,089	21
2010	86	71	2060	1,011	18
2011	109	83	2061	934	15
2012	134	95	2062	857	13
2013	161	106	2063	780	11
2014	191	116	2064	705	9
2015	225	126	2065	633	8
2016	263	137	2066	563	6
2017	303	146	2067	497	5
2018	345	154	2068	435	4
2019	393	162	2069	376	3
2020	445	170	2070	322	3
2021	501	177	2071	273	2
2022	560	183	2072	229	2
2023	621	188	2073	189	1
2024	688	193	2074	155	1
2025	760	198	2075	124	1
2026	833	201	2076	99	1
2027	909	203	2077	77	0
2028	984	203	2078	59	0
2029	1,062	203	2079	45	0
2030	1,142	202	2080	34	0
2031	1,219	200	2081	25	0
2032	1,297	197	2082	18	0
2033	1,370	192	2083	13	0
2034	1,440	187	2084	9	0
2035	1,508	182	2085	6	0
2036	1,573	175	2086	4	0
2037	1,628	168	2087	3	0
2038	1,677	160	2088	2	0
2039	1,720	152	2089	1	0
2040	1,755	144	2090	1	0
2041	1,786	136	2091	0	0
2042	1,803	127	2092	0	0
2043	1,811	118	2093	0	0
2044	1,813	109	2094	0	0
2045	1,807	101	2095	0	0
2046	1,796	93	2096	0	0
2047	1,773	85	2097	0	0
2048	1,743	77	2098	0	0
2049	1,708	70	2099	0	0
2050	1,667	63	2100	0	0
2051	1,619	57	2101	0	0
2052	1,567	51	2102	0	0
2053	1,510	46	2103	0	0
2054	1,448	40	2104	0	0
2055	1,382	36	2105	0	0
2056	1,312	31	2106	0	0
2057	$1,240	$27	2107	$0	$0
			Total	**$64,534**	**$6,596**

Age/Service Distribution

Age and Service Distribution of Active Law Enforcement Officers
(Number of Actives and Average Annual Salary)

LEOFF Plan 2:

Attained Age	Attained Years of Service												
	0	**1**	**2**	**3**	**4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**Total**
Under 25	55	79	28	4	0	0	0	0	0	0	0	0	0	**166**
	$48,332	$51,682	$62,765	$67,680	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$52,827**
25-29	110	237	200	141	77	105	0	0	0	0	0	0	0	**870**
	$49,211	$53,387	$62,027	$66,719	$68,615	$73,525	$0	$0	$0	$0	$0	$0	$0	**$60,784**
30-34	71	145	141	127	112	602	143	0	0	0	0	0	0	**1,341**
	$49,731	$55,720	$61,726	$66,815	$72,640	$75,455	$79,310	$0	$0	$0	$0	$0	$0	**$69,873**
35-39	53	79	96	91	82	644	749	151	0	0	0	0	0	**1,945**
	$50,816	$56,256	$64,834	$71,574	$69,420	$75,338	$79,912	$86,758	$0	$0	$0	$0	$0	**$75,599**
40-44	16	41	49	49	34	317	558	686	144	0	0	0	0	**1,894**
	$50,858	$58,344	$71,530	$72,121	$70,642	$77,426	$80,958	$85,305	$88,769	$0	$0	$0	$0	**$81,133**
45-49	13	6	24	25	14	163	222	446	490	112	1	0	0	**1,516**
	$57,062	$53,936	$58,715	$79,693	$70,869	$74,915	$79,338	$85,380	$90,896	$95,099	*	$0	$0	**$84,871**
50-54	3	9	6	11	10	70	108	184	290	390	59	0	0	**1,140**
	$47,579	$80,484	$60,560	$88,591	$59,671	$75,437	$79,052	$84,170	$88,546	$96,407	$94,922	$0	$0	**$88,583**
55-59	1	3	6	1	7	34	59	55	112	197	51	0	0	**526**
	*	$79,868	$102,399	*	$72,342	$86,575	$75,055	$81,460	$83,696	$90,117	$89,163	$0	$0	**$85,576**
60-64	1	0	0	4	1	13	15	21	33	35	4	0	0	**127**
	*	$0	$0	$96,443	*	$81,488	$78,945	$74,608	$79,796	$88,247	$97,738	$0	$0	**$82,003**
65-69	0	1	0	0	0	2	1	5	3	4	0	0	0	**16**
	$0	*	$0	$0	$0	$77,589	*	$76,500	$78,705	$80,147	$0	$0	$0	**$78,569**
70 & Over	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
	$0	$0	$0	$0	$0	$0	$0	$0	*	$0	$0	$0	$0	*
Total	**323**	**600**	**550**	**453**	**337**	**1,950**	**1,855**	**1,548**	**1,073**	**738**	**115**	**0**	**0**	**9,542**
	$49,793	**$54,993**	**$63,604**	**$69,862**	**$70,229**	**$75,823**	**$79,913**	**$85,023**	**$88,844**	**$94,054**	**$92,616**	**$0**	**$0**	**$77,812**

Average:	Age	41.0	Number of Participants:	Vested	7,084	Males	8,611	Early Retirement Eligible:	490
	Service	11.9		Not Vested	2,458	Females	931	Normal Retirement Eligible:	1,041

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

Age and Service Distribution of Active Fire Fighters

(Number of Actives and Average Annual Salary)

(Continued)

LEOFF Plan 2:

Attained Age	Attained Years of Service													
	0	**1**	**2**	**3**	**4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**Total**
Under 25	42	49	28	7	1	0	0	0	0	0	0	0	0	**127**
	$50,513	$53,101	$59,970	$69,621	*	$0	$0	$0	$0	$0	$0	$0	$0	**$54,802**
25-29	57	128	123	92	52	119	0	0	0	0	0	0	0	**571**
	$51,790	$55,474	$63,800	$70,733	$73,393	$78,920	$0	$0	$0	$0	$0	$0	$0	**$65,876**
30-34	42	92	91	91	56	492	106	0	0	0	0	0	0	**970**
	$53,481	$55,586	$63,983	$69,805	$76,018	$80,521	$83,633	$0	$0	$0	$0	$0	$0	**$74,509**
35-39	13	32	58	55	66	505	520	143	1	0	0	0	0	**1,393**
	$51,618	$55,932	$64,737	$70,658	$75,338	$81,541	$86,896	$89,946	*	$0	$0	$0	$0	**$82,110**
40-44	8	19	18	28	29	235	371	450	119	0	0	0	0	**1,277**
	$51,097	$56,093	$65,535	$63,851	$71,561	$80,852	$87,382	$92,399	$99,701	$0	$0	$0	$0	**$87,220**
45-49	1	6	13	13	9	121	194	371	346	163	3	0	0	**1,240**
	*	$69,663	$64,515	$65,529	$75,133	$78,962	$84,694	$93,986	$98,417	$103,485	$112,068	$0	$0	**$92,702**
50-54	1	4	2	5	2	51	84	206	239	368	37	0	0	**999**
	*	$78,274	$74,534	$84,743	$76,075	$82,188	$83,920	$89,662	$97,791	$104,133	$109,488	$0	$0	**$96,638**
55-59	0	1	4	5	3	31	27	55	79	180	31	0	0	**416**
	$0	*	$69,452	$83,429	$61,483	$91,096	$84,097	$91,805	$95,164	$102,095	$95,141	$0	$0	**$95,968**
60-64	0	0	0	1	0	8	4	10	11	35	4	0	0	**73**
	$0	$0	$0	*	$0	$86,783	$88,758	$91,289	$101,317	$95,610	$90,953	$0	$0	**$94,928**
65-69	0	0	1	1	1	2	4	4	3	2	0	0	0	**18**
	$0	$0	*	*	*	$72,995	$100,038	$64,995	$106,073	$85,336	$0	$0	$0	**$78,987**
70 & 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	**164**	**331**	**338**	**298**	**219**	**1,564**	**1,310**	**1,239**	**798**	**748**	**75**	**0**	**0**	**7,084**
	$51,848	**$55,765**	**$63,904**	**$70,117**	**$74,163**	**$80,944**	**$86,241**	**$92,012**	**$98,143**	**$103,052**	**$102,673**	**$0**	**$0**	**$85,033**

Average:	Age	41.5	Number of Participants:	Vested	5,616	Males	6,678	Early Retirement Eligible:	426
	Service	12.8		Not Vested	1,468	Females	406	Normal Retirement Eligible:	817

**Annual Salary omitted for privacy reasons.*

Numbers of participants eligible for early and normal retirement are estimates only.

Age and Years Retired Distribution of Service Retired Law Enforcement Officers (Number of Service Retired Members and Average Monthly Benefit) LEOFF Plan 2:														
Attained Age	Attained Years Retired													
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 50	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**
50-54	31	48	17	13	4	0	0	0	0	0	0	0	0	**113**
	$2,699	$2,652	$2,772	$2,899	$2,366	$0	$0	$0	$0	$0	$0	$0	$0	**$2,701**
55-59	16	52	68	54	41	39	0	0	0	0	0	0	0	**270**
	$2,855	$2,680	$2,365	$2,333	$2,211	$1,648	$0	$0	$0	$0	$0	$0	$0	**$2,321**
60-64	7	21	16	17	14	76	1	0	0	0	0	0	0	**152**
	$2,606	$2,510	$2,670	$2,143	$2,245	$1,499	*	$0	$0	$0	$0	$0	$0	**$1,953**
65-69	1	3	6	10	6	35	15	0	0	0	0	0	0	**76**
	*	$2,320	$1,568	$2,215	$2,179	$1,330	$969	$0	$0	$0	$0	$0	$0	**$1,511**
70-74	0	1	1	0	1	8	5	3	0	0	0	0	0	**19**
	$0	*	*	$0	*	$1,474	$938	$535	$0	$0	$0	$0	$0	**$1,238**
75-79	0	0	0	0	0	0	5	1	0	0	0	0	0	**6**
	$0	$0	$0	$0	$0	$0	$1,243	*	$0	$0	$0	$0	$0	**$1,187**
80-84	0	0	0	0	0	0	0	1	1	0	0	0	0	**2**
	$0	$0	$0	$0	$0	$0	$0	*	*	$0	$0	$0	$0	**$701**
85-89	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**
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	**55**	**125**	**108**	**94**	**66**	**158**	**26**	**5**	**1**	**0**	**0**	**0**	**0**	**638**
	$2,723	**$2,623**	**$2,424**	**$2,364**	**$2,223**	**$1,497**	**$1,033**	**$648**	*	**$0**	**$0**	**$0**	**$0**	**$2,156**

Average:	Age	59.2		Males	588
	Years Retired	3.7		Females	50

**Monthly benefit omitted for privacy reasons.*

Age and Years Retired Distribution of Service Retired Fire Fighters
(Number of Service Retired Members and Average Monthly Benefit)
(Continued)

LEOFF Plan 2:

Attained Age	Attained Years Retired													
	0	**1**	**2**	**3**	**4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**Total**
Under 50	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**
50-54	7	23	1	0	0	0	0	0	0	0	0	0	0	**31**
	$2,375	$2,440	*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,463**
55-59	5	27	33	32	17	15	0	0	0	0	0	0	0	**129**
	$3,796	$3,015	$2,653	$2,398	$1,963	$2,175	$0	$0	$0	$0	$0	$0	$0	**$2,563**
60-64	4	16	7	7	6	34	0	0	0	0	0	0	0	**74**
	$3,465	$2,797	$2,599	$2,667	$1,836	$2,158	$0	$0	$0	$0	$0	$0	$0	**$2,430**
65-69	2	3	3	3	2	15	3	0	0	0	0	0	0	**31**
	$2,596	$1,791	$2,508	$2,553	$1,910	$1,652	$1,076	$0	$0	$0	$0	$0	$0	**$1,857**
70-74	0	0	0	0	2	8	8	6	0	0	0	0	0	**24**
	$0	$0	$0	$0	$2,225	$1,601	$1,133	$808	$0	$0	$0	$0	$0	**$1,299**
75-79	0	0	0	0	0	2	3	2	1	0	0	0	0	**8**
	$0	$0	$0	$0	$0	$1,326	$1,798	$566	*	$0	$0	$0	$0	**$1,237**
80-84	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**
	$0	$0	$0	$0	$0	$0	$0	*	$0	$0	$0	$0	$0	*****
85-89	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**
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	**18**	**69**	**44**	**42**	**27**	**74**	**14**	**9**	**1**	**0**	**0**	**0**	**0**	**298**
	$3,036	**$2,719**	**$2,656**	**$2,454**	**$1,950**	**$1,976**	**$1,263**	**$692**	*	**$0**	**$0**	**$0**	**$0**	**$2,301**

Average:	Age	60.5	Males	285	
	Years Retired	4.1	Females	13	

**Monthly benefit omitted for privacy reasons.*

Age and Years Retired Distribution of All Law Enforcement Officers With Disabilities
(Number of All Members With Disabilities and Average Monthly Benefit)
(Continued)

LEOFF Plan 2:

Attained Age	Attained Years Retired													
	0	**1**	**2**	**3**	**4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**Total**
Under 50	1	2	4	4	0	7	0	0	0	0	0	0	0	**18**
	*	$1,640	$1,396	$1,163	$0	$672	$0	$0	$0	$0	$0	$0	$0	**$1,097**
50-54	3	4	4	1	4	7	0	0	0	0	0	0	0	**23**
	$2,672	$2,224	$2,046	*	$2,770	$720	$0	$0	$0	$0	$0	$0	$0	**$1,940**
55-59	1	5	6	7	3	5	0	1	0	0	0	0	0	**28**
	*	$2,302	$2,201	$2,193	$2,213	$1,662	$0	*	$0	$0	$0	$0	$0	**$2,078**
60-64	0	1	3	3	2	7	0	0	0	0	0	0	0	**16**
	$0	*	$2,512	$2,821	$2,808	$1,447	$0	$0	$0	$0	$0	$0	$0	**$2,171**
65-69	0	0	0	1	1	1	1	0	0	0	0	0	0	**4**
	$0	$0	$0	*	*	*	*	$0	$0	$0	$0	$0	$0	**$644**
70-74	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**
75-79	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
	$0	$0	$0	$0	$0	$0	$0	$0	*	*	$0	$0	$0	**$234**
80-84	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**
85-89	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**
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	**5**	**12**	**17**	**16**	**10**	**27**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**91**
	$2,515	**$2,224**	**$2,030**	**$2,031**	**$2,380**	**$1,082**	*	*	*	*	**$0**	**$0**	**$0**	**$1,762**

Average:	Age	54.9		Males	77
	Years Retired	4.3		Females	14

**Monthly benefit omitted for privacy reasons.*

Age and Years Retired Distribution of All Fire Fighters With Disabilities
(Number of All Members With Disabilities and Average Monthly Benefit)
(Continued)

LEOFF Plan 2:

Attained Age	Attained Years Retired													
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 50	0	3	2	2	1	5	0	0	0	0	0	0	0	13
	$0	$1,042	$1,022	$1,800	*	$718	$0	$0	$0	$0	$0	$0	$0	$982
50-54	3	2	2	1	0	3	0	0	0	0	0	0	0	11
	$3,008	$2,292	$2,699	*	$0	$1,920	$0	$0	$0	$0	$0	$0	$0	$2,529
55-59	2	2	4	4	2	2	0	0	0	0	0	0	0	16
	$3,160	$2,802	$2,821	$2,453	$2,792	$1,991	$0	$0	$0	$0	$0	$0	$0	$2,662
60-64	0	1	1	1	0	5	0	0	0	0	0	0	0	8
	$0	*	*	*	$0	$1,912	$0	$0	$0	$0	$0	$0	$0	$2,070
65-69	0	0	0	1	0	1	2	0	0	0	0	0	0	4
	$0	$0	$0	*	$0	*	$562	$0	$0	$0	$0	$0	$0	$972
70-74	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
75-79	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
80-84	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
85-89	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
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	**5**	**8**	**9**	**9**	**3**	**16**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**52**
	$3,069	**$1,901**	**$2,444**	**$2,165**	**$1,997**	**$1,529**	**$562**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,993**

Average:	Age	54.0		Males	46
	Years Retired	3.7		Females	6

Age and Years Retired Distribution of Survivors of Law Enforcement Officers
(Number of Survivors and Average Monthly Benefit)
(Continued)

LEOFF Plan 2:

Attained Age	Attained Years Retired													
	0	**1**	**2**	**3**	**4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**Total**
Under 50	1	1	0	2	3	3	0	0	0	0	0	0	0	**10**
	*	*	$0	$2,050	$1,494	$1,406	$0	$0	$0	$0	$0	$0	$0	**$1,634**
50-54	1	3	1	0	1	4	0	0	0	0	0	0	0	**10**
	*	$1,742	*	$0	*	$1,039	$0	$0	$0	$0	$0	$0	$0	**$1,611**
55-59	0	1	1	0	3	2	0	0	0	0	0	0	0	**7**
	$0	*	*	$0	$1,489	$1,280	$0	$0	$0	$0	$0	$0	$0	**$1,788**
60-64	0	0	0	1	0	2	0	0	0	0	0	0	0	**3**
	$0	$0	$0	*	$0	$903	$0	$0	$0	$0	$0	$0	$0	**$1,314**
65-69	0	0	0	0	0	2	2	0	0	0	0	0	0	**4**
	$0	$0	$0	$0	$0	$938	$996	$0	$0	$0	$0	$0	$0	**$967**
70-74	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**
	$0	$0	$0	$0	$0	*	$0	*	$0	$0	$0	$0	$0	**$987**
75-79	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**
80-84	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**
85-89	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**
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	**2**	**5**	**2**	**3**	**7**	**14**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**36**
	$3,148	**$1,532**	**$2,457**	**$2,079**	**$1,580**	**$1,160**	**$996**	*	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,521**

Average:	Age	53.4		Males	2
	Years Retired	4.8		Females	34

**Monthly benefit omitted for privacy reasons.*

Age and Years Retired Distribution of Survivors of Fire Fighters
(Number of Survivors and Average Monthly Benefit)
(Continued)

LEOFF Plan 2:

Attained Age	Attained Years Retired													
	0	**1**	**2**	**3**	**4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**	**Total**
Under 50	0	0	2	2	0	0	0	0	0	0	0	0	0	**4**
	$0	$0	$1,867	$1,510	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,689**
50-54	0	0	1	2	1	0	0	0	0	0	0	0	0	**4**
	$0	$0	*	$1,656	*	$0	$0	$0	$0	$0	$0	$0	$0	**$1,979**
55-59	0	0	1	0	0	3	1	0	0	0	0	0	0	**5**
	$0	$0	*	$0	$0	$1,866	*	$0	$0	$0	$0	$0	$0	**$1,560**
60-64	0	1	0	0	0	0	1	0	0	0	0	0	0	**2**
	$0	*	$0	$0	$0	$0	*	$0	$0	$0	$0	$0	$0	**$1,672**
65-69	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**
70-74	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	*****
75-79	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	*****
80-84	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**
	$0	$0	$0	$0	$0	$0	$0	*	$0	$0	$0	$0	$0	*****
85-89	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**
90-94	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
	$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	**0**	**1**	**4**	**4**	**1**	**4**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**19**
	$0	*****	**$1,923**	**$1,583**	*****	**$1,559**	**$443**	*****	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,504**

Average:	Age	56.1		Males	1
	Years Retired	6.3		Females	18

**Monthly benefit omitted for privacy reasons.*

Historical Data

Historical Data						
(Dollars in millions)	2008	2007[1]	2006	2005	2004	2003
Contribution Information						
Employer Rate	4.34%	4.56%	4.66%	4.86%	4.57%	4.32%
State Rate	2.89%	3.04%	3.11%	3.24%	3.03%	2.88%
Employee Rate	7.23%	7.60%	7.77%	8.10%	7.60%	7.20%
Funded Status						
Credited Projected Liability	$3,786	$3,386	$3,323	$2,932	$2,521	$2,194
Market Value of Assets	5,315	5,185	4,339	3,614	2,984	2,541
Actuarial Value of Assets	5,053	4,360	3,844	3,329	2,947	2,740
Unfunded Liability	($1,266)	($974)	($521)	($397)	($426)	($547)
Funded Ratio	133.45%	128.76%	115.68%	113.53%	116.89%	124.91%
Participant Data						
Number of Actives	16,626	16,099	15,718	15,168	14,754	14,560
Total Annual Salaries	$1,345	$1,234	$1,172	$1,092	$1,020	$967
Number of Terminated Vested	649	629	597	570	521	439
Number of Terminated, Not Vested	1,531	1,433	1,362	1,285	1,233	1,186
Number of Retirees and Beneficiaries	1,134	924	779	574	432	316
Total Annual Benefits	$29	$22	$17	$11	$8	$5
Assumptions						
Valuation Interest Rate	8.00%	5.94%	8.00%	8.00%	8.00%	8.00%
Salary Increase	6.61%	5.49%	7.40%	7.40%	7.60%	7.70%
Inflation[2]	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Growth in Membership	1.25%	0.94%	1.25%	1.25%	1.25%	1.25%
Actuarial Experience						
Return on Market Value	(1.33%)	16.61%	15.77%	17.55%	13.64%	15.13%
Return on Actuarial Value	11.04%	10.03%	10.80%	9.30%	4.10%	0.60%
Salary Increase	7.65%	4.31%	5.50%	5.90%	5.20%	4.80%
Inflation	3.79%	3.73%	3.02%	1.57%	1.41%	1.81%
Growth in Membership	4.49%	1.83%	2.66%	1.85%	0.33%	2.59%
COLA[3]	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

[1] *For the 2007 valuation, the salary, interest, and growth rates were not annualized. They reflect the actual valuation period of nine months.*

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

[3] *COLA 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 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, results 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). Actuaries commonly select an asset 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

A ratio of a plan's current assets to the present value of earned pensions. Actuaries use several methods to measure 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 equals the actuarial value of assets divided by the actuarial accrued liability calculated under the Projected Unit Credit cost method.

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 equals the total normal cost of the plan reduced by employee contributions.

Present Value of Fully Projected Benefits

Computed by projecting the total future benefit payments from the plan, using actuarial assumptions (i.e., probability of death or retirement, salary increases, etc.), and discounting the payments to the valuation date using the valuation interest rate to determine the present value (today's value).

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 equals the difference between the accrued liability at the beginning and end of the plan year.

Unfunded Actuarial Accrued Liability (UAAL)

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 not covered by current plan assets.

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