



June 20, 2018

Contribution Rate Setting Options

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ISSUE STATEMENT

Setting the contribution rates for the Law Enforcement Officers' and Fire Fighters' (LEOFF) Plan 2 retirement system is one of the key responsibilities of the Board.

OVERVIEW

Setting appropriate contribution rates is important to maintaining the financial integrity of LEOFF Plan 2 and providing stability for employers, members, and the state with respect to amounts that must be budgeted and paid into the plan.

This report provides an introduction to contribution rate setting and includes information about the rate setting cycle; current and historical contribution rates; and reviews the Board's strategy and policies related to contribution rates, along with other concepts that impact rate setting.

BACKGROUND AND POLICY ISSUES

Introduction

In even numbered years, the Board has a statutory duty¹ to set contribution rates for LEOFF Plan 2. Contribution rates come in two forms; a "base rate" to pay for the cost of the plan and a "supplemental rate" to pay for the cost of additional benefits added to the plan.

The Board adopts the required rates for members, employers, and the state². Contribution rates are split on a 50-30-20 basis and calculated as a percentage of employee salary. The Department of Retirement Systems (DRS) collects the required contributions on a monthly basis and transfers them to the LEOFF 2 Retirement Fund.

Prior to the creation of the Board in July 1, 2003 under Initiative 790, basic contribution rates for LEOFF Plan 2 were set by the Pension Funding Council (PFC), subject to revision by the Legislature. The PFC would receive contribution rate recommendations from the Office of the State Actuary (OSA) on all of the state retirement plans, including LEOFF Plan 2 and this same process is used today for all of the other state retirement systems.

¹ RCW 41.26.720, RCW 41.45.0604, 41.45.070, RCW 44.44.040. See Appendix A: LEOFF Plan 2 Rate Setting Statutes

² LEOFF Plan 2 is the only state plan receiving a contribution from the state.

After the creation of the Board, OSA now makes contribution rate recommendations for LEOFF Plan 2 directly to the Board and the Board sets contribution rates. The PFC still sets the contribution rates for the other state pension plans.

Contribution Rate Setting Cycle

Under current Washington State law, in July of even-numbered years, the Board reviews the basic contribution rates calculated by the Office of the State Actuary (OSA)³ based on an actuarial valuation performed on asset, participant, and plan information compiled in odd-numbered years.

In calculating base contribution rates, OSA applies applicable funding policies. The Board then adopts contribution rates for LEOFF Plan 2 as provided under RCW 41.26.720(1)(a). The adopted rates remain in place for the ensuing biennium.

Biennial Base Rates

The biennial base contribution rate is based on the level of benefits in place at the time the underlying actuarial valuation is performed. Base contribution rates for LEOFF Plan 2 were established on an ad-hoc basis prior to 1989, but generally were only changed every two years, unless there was a benefit increase.

Supplemental Rates

A supplemental contribution rate is calculated and charged whenever there is an increase to benefits as provided in RCW 41.45.070. Supplemental contribution rates for LEOFF Plan 2 are adopted by the Board. Supplemental contribution rates are included in the basic rates at the beginning of the next contribution rate-setting cycle.

Current Rates

During the 2016 Interim, the Board adopted contribution rates for the 2017-19 and 2019-21 biennium's based on 100 percent of the normal cost under the Entry Age Normal (EAN) funding method. The Board's rate adoption for 2017-21 represents a continuation of their temporary funding policy that produces stable contribution rates. Measured at June 30, 2016, that rate adoption exceeds the requirements under the plan's actuarial cost method and long-term funding policy.⁴

The current *total* contribution rate for LEOFF Plan 2 is 17.50%⁵ which breaks down to:

- 8.75% Members
- 5.25% Employers
- 3.50% State

See Appendix A to review the full history of LEOFF Plan 2 contribution rates.

³ Board-retained actuary

⁴ 2016 Actuarial Valuation Report for LEOFF Plan 2, pg. 12.

⁵ Rates based on the 2016 Valuation as recommended by OSA: 7.91% Member, 5.25% Employer, 3.50% State (Total 15.82%)

LEOFF STRATEGIC PRIORITIES

Pension plans commonly have other goals related to plan funding in addition to the primary goal of providing the necessary funding to pay the full costs of the plan. These goals may influence the choice of a funding method and they may also lead pension plans to adopt funding policies which modify the plan's funding method to support those other goals. These choices can impact the contribution rates.

In 2004 the Board, as part of its strategic plan, identified financial integrity as one of its top four goals. Contribution rate stability and full funding on an ongoing basis were identified as key objectives of this goal.

CONCEPTS AFFECTING CONTRIBUTION RATES

Actuarial Cost Method

The aggregate actuarial cost method was statutorily designated to satisfy the goal of fully funding LEOFF Plan 2. By definition, the aggregate actuarial cost method does not allow for an unfunded actuarial accrued liability (UAAL) to develop.

The aggregate normal cost is determined as the level percentage of projected payroll that will fund the difference between the present value of projected benefits and the actuarial value of assets at the valuation date.

As a result, any difference between the assets and the projected liability, due to short-term gains or losses, assumption changes or benefit enhancements, is automatically reflected in the annual cost of the plan and not amortized as a separate component of plan cost. In absence of an effective asset smoothing method, the aggregate cost method can produce volatile contribution rates under certain investment market cycles.

In July 2008 the Board adopted a temporary change in funding policy by adopting fixed rates for the next four years (July 1, 2009 through June 30, 2013) that were equal to 100% of the EANC as of June 30, 2007. Then in July 2010, as part of their two-year rate-setting cycle, the Board reviewed the existing funding policy and moved to extend the current temporary funding policy through June 30, 2017.

This temporary funding policy allowed the Board to maintain rate stability and 100% funded status through June 2017. The Board's policy allowed for the fund to recognize all of the losses from 2008 and 2009 without having to increase contribution rates. Most of the other Washington plans had, and continue to have, significant pressure to increase rates.

At the July 2012 meeting, the Board decided to adjust the temporary funding policy enacted in 2010 by adopting rates based on 100% of the EANC from the *2011 Actuarial Valuation Report*, rather than continuing to use the rates from the *2007 Actuarial Valuation Report*.

The funding policies, which determine the required contribution rates for LEOFF Plan 2, are found in RCW 41.45. Two of the general funding policy goals that apply to LEOFF Plan 2 are:

1. To dependably, systematically and fully fund Plan 2; and
2. To establish predictable long-term employer contribution rates that will remain a relatively constant proportion of future budgets.

Long-Term Economic Assumptions

Certain long-term economic assumptions are designated in RCW 41.45.035, which have an effect on pension contribution rates.

There are four long-term economic assumptions used to estimate the future cost of LEOFF Plan 2 and develop accurate current contribution rates for funding the plan. These economic assumptions currently are:

- Growth in Inflation – 3%
- Investment Rate of Return – 7.5%
- Growth in Salaries – 3.75%
- Growth in System Membership – 1.25%

The accuracy of these assumptions is reviewed every two years because of their importance to plan funding. Inaccurate assumptions will result in the need to change contribution rates, up or down, depending on whether the assumptions were too conservative or too aggressive. These economic assumptions were established in statute by the Legislature in 2001. The Board was given the authority to set long-term economic assumptions for LEOFF Plan 2 in 2003 and has reaffirmed the use of these assumptions.

Actuarial Experience Studies

The Office of the State Actuary (OSA) is required to submit an experience study every four years regarding demographic assumptions, which have an effect on the calculation of the actuarial liabilities for LEOFF Plan 2, such as mortality, disability, salary growth and retirement experience. The results of these experience studies are incorporated into future actuarial valuations. The results of the 1995-2000 Actuarial Experience Study were the basis for contribution rate reductions by the Legislature in 2002.

Demographic Assumptions

Member behavior also plays a crucial role in determining the cost of a pension plan. So in order to estimate the future cost of the plan and determine the appropriate current contribution rates to fund the plan, assumptions are required for things like how long a member will live, when a member will choose to retire, and the likelihood that a member will become disabled during their career. These assumptions are referred to as “demographic assumptions.” The accuracy of these assumptions is reviewed every six years in an experience study, which compares the expected behavior of the pension plan’s population to what was actually experienced.

POLICY OPTIONS

Continuing Current Rates

The rates currently collected are sufficient to fund the cost of all benefits in LEOFF 2 during the 2019-21 Biennium. Current rates are based on the *2015 Actuarial Valuation*, include subsequent temporary and supplemental rates prior to the 2018 Legislative Session, and were adopted by the Board through 2021. The current rates do not reflect the Board’s updated economic assumptions adopted in the 2017 Interim. These include lowering the discount rate, general salary growth, and inflation assumptions. If the Board chooses to continue these rates, no Board action is required since these rates have previously been adopted through 2021.

Adopt Rates Based on the 2017 Actuarial Valuation Results

The preliminary contribution rate levels based on the *2017 Actuarial Valuation* are lower than the rates currently collected, due in part to the lower economic assumptions and changes in plan experience. If the Board elects to adopt new rates based on the *2017 Actuarial Valuation* two possible options include:

- 90 Percent EANC - 90 percent of the Entry Age Normal Cost (EANC), consistent with the plan's ACM and including minimum rates under the Board's long-term funding policy, or
- 100 Percent EANC - 100 percent of EANC, consistent with the plan's ACM and including minimum rates under the Board's funding policy since 2008.

OPTIONS

Summary of options:

	1. Adopt Current Rates	2. Adopt 90% EANC based on 2017 Actuarial Valuation*	3. Adopt 100% EANC based on 2017 Actuarial Valuation*
Member	8.75%	7.69%	8.54%
Employer	5.25%	4.61%	5.13%
State	3.50%	3.08%	3.42%

**Excludes the recommended supplemental rate increase of 0.05% member, 0.03% employer, and 0.02% state to account for SSB 6214.*

PROCESS AND TIMELINE

At the July 25, 2018 the Board will hear the results of the audit of the OSA valuation from the outside actuarial firm Milliman. The Board will then adopt/reaffirm contribution rates for the 2019-2021 biennium.

SUPPORTING INFORMATION

Appendix A: LEOFF Plan 2 Rate Setting Statutes

Appendix B: LEOFF Plan 2 Historical Contribution Rates

Appendix C: OSA Preliminary LEOFF 2 Contribution Rate Recommendations

APPENDIX A: LEOFF PLAN 2 RATE SETTING STATUES

RCW 41.26.720

(1) The Board of trustees have the following powers and duties and shall:

(a) Adopt actuarial tables, assumptions, and cost methodologies in consultation with an enrolled actuary retained by the board. The state actuary shall provide assistance when the board requests. The actuary retained by the board shall utilize the aggregate actuarial cost method, or other recognized actuarial cost method based on a level percentage of payroll, as that term is employed by the American academy of actuaries. In determining the reasonableness of actuarial valuations, assumptions and cost methodologies, the actuary retained by the board shall provide a copy of all such calculations to the state actuary. If the two actuaries concur on the calculations, contributions shall be made as set forth in the report of the board's actuary. If the two actuaries cannot agree, they shall appoint a third, independent, enrolled actuary who shall review the calculations of the actuary retained by the board and the state actuary. Thereafter, contributions shall be based on the methodology most closely following that of the third actuary.

RCW 41.45.0604

(1) Not later than September 30, 2004, and every even-numbered year thereafter, the law enforcement officers' and firefighters' plan 2 retirement board shall adopt contribution rates for the law enforcement officers' and firefighters' retirement system plan 2 as provided in RCW 41.26.720(1)(a).

(2) The law enforcement officers' and firefighters' plan 2 retirement board shall immediately notify the directors of the office of financial management and department of retirement systems of the state, employer, and employee rates adopted by the board. The rates shall be effective for the ensuing biennial period, subject to legislative modification.

RCW 41.45.070

(2) In addition to the basic member, employer, and state contribution rate established in RCW 41.45.0604 for the law enforcement officers' and firefighters' retirement system plan 2, the department shall also establish supplemental rates to pay for the cost of additional benefits, if any, granted to members of the law enforcement officers' and firefighters' retirement system plan 2. Except as provided in (6) of this section, these supplemental rates shall be calculated by the actuary retained by the law enforcement officers' and firefighters' board and the state actuary through the process provided in RCW 41.26.720(1)(a) and the state treasurer shall transfer the additional required contributions regardless of language to the contrary contained in the statute which authorizes the additional benefits.

RCW 44.44.040

The office of the state actuary shall have the following powers and duties:

(7) Provide actuarial assistance to the law enforcement officers' and firefighters' plan 2 retirement board as provided in chapter 2, laws of 2003. Reimbursement for those services shall be made to the state actuary under RCW 39.34.130 and 41.26.720(5).

APPENDIX B: LEOFF PLAN 2 HISTORICAL CONTRIBUTION RATES

Effective	Member	Employer	State	Expense
7/1/2017 ⁶	8.75%	5.25%	3.50%	0.18%
7/1/2015	8.41%	5.05%	3.36%	0.18%
7/1/2013	8.41%	5.05%	3.36%	0.18%
9/1/2009	8.46%	5.08%	3.38%	0.16%
7/1/2009	8.45%	5.07%	3.38%	0.16%
7/1/2008	8.83%	5.30%	3.53%	0.16%
9/1/2007	8.64%	5.19%	3.45%	0.16%
7/1/2007	8.60%	5.17%	3.43%	0.18%
9/1/2006	7.85%	4.72%	3.13%	0.18%
7/1/2006	7.79%	4.68%	3.11%	0.19%
9/1/2005	6.99%	4.20%	2.79%	0.19%
7/1/2005	6.75%	4.05%	2.70%	0.19%
9/1/2004	5.09%	3.06%	2.03%	0.19%
2/1/2004	5.07%	3.04%	2.03%	0.22%
7/1/2002	5.05%	3.03%	2.02%	0.22%
5/1/2002	4.39%	2.64%	1.75%	0.22%
4/1/2002	4.39%	2.64%	1.75%	0.23%
7/1/2001	4.50%	2.70%	1.80%	0.23%
9/1/2000	6.78%	4.07%	2.71%	0.23%
7/1/2000	5.41%	3.25%	2.16%	0.23%
5/1/2000	5.41%	3.25%	2.16%	0.25%
9/1/1999	5.87%	3.52%	2.35%	0.21%
7/1/1999	5.87%	3.52%	2.35%	0.21%
9/1/1997	8.48%	5.09%	3.39%	0.18%
9/1/1996	8.43%	5.06%	3.37%	0.20%
9/1/1995	8.41%	5.05%	3.36%	0.20%
3/1/1994	8.41%	5.05%	3.36%	0.17%
9/1/1993	8.41%	5.05%	3.36%	0.22%
1/1/1992	7.01%	4.21%	2.80%	0.22%
7/1/1989	7.60%	4.56%	3.04%	0.22%
9/1/1988	8.09%	4.85%	3.24%	0.22%
7/1/1987	8.09%	4.85%	3.24%	0.16%
7/1/1985	7.83%	4.70%	3.13%	0.16%
7/1/1983	7.90%	4.74%	3.16%	0.16%
7/1/1981	7.74%	4.65%	3.09%	0.16%
7/1/1979	8.08%	4.85%	3.23%	0.09%
10/1/1977	8.14%	4.88%	3.26%	0.10%

⁶ These rates adopted through the 2019-2021 biennium (June 30, 2021)



Office of the State Actuary

"Supporting financial security for generations."

June 11, 2018

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

SUBJECT: PRELIMINARY LEOFF 2 PENSION CONTRIBUTION RATES

Dear Steve:

Enclosed are the preliminary contribution rates from the *2017 Actuarial Valuation* of the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2 (LEOFF 2) and contribution rate options for the Board's consideration. The results are still considered preliminary until the concurrent external audit is complete.

The primary purpose of the valuation is to determine contribution requirements for LEOFF 2 as of the valuation date, June 30, 2017. This valuation should not be used for other purposes. The results are based on asset smoothing techniques and funding policies established under Chapter 41.45 RCW and reflect the most current economic assumptions adopted by the Board.

We present two key policy choices before the Board regarding the adoption of contribution rates. The Board will determine whether to continue the current rates adopted in 2016 to be collected for the period 2017-2021, or adopt new rates based on the results of the *2017 Actuarial Valuation*.

Valuation Results

We provided a preview of the preliminary 2017 valuation results at your May Board meeting. We will forward a final actuarial valuation report to the Board this fall reflecting any changes necessary from the concurrent external audit and the Board's final decisions on rates.

Contribution Rates

In my opinion, all of the preliminary 2019-21 contribution rate options outlined in this communication are reasonable for funding the benefit provisions of LEOFF 2 currently



defined in law. In addition, the rates include the cost of medical benefits that will be paid through a 401(h) account.

As noted above, the Board will determine whether to (1) continue current contribution rates throughout the 2019-21 Biennium, or (2) adopt new rates for the 2019-21 Biennium based on the results of the *2017 Actuarial Valuation*.

Continuing Current Rates

The rates currently collected (**Attachment A**) are sufficient to fund the cost of all benefits in LEOFF 2 during the 2019-21 Biennium. Current rates are based on the *2015 Actuarial Valuation*, include subsequent temporary and supplemental rates prior to the 2018 Legislative Session, and were adopted by the Board through 2021. The current rates do not reflect the Board's updated economic assumptions adopted in the 2017 Interim. These include lowering the discount rate, general salary growth, and inflation assumptions.

If the Board chooses to continue these rates, no Board action is required since these rates have previously been adopted through 2021.

Adopting Rates Based on the 2017 Actuarial Valuation Results

The preliminary contribution rate levels based on the *2017 Actuarial Valuation* are lower than the rates currently collected, due in part to the lower economic assumptions and changes in plan experience. If the Board elects to adopt new rates based on the *2017 Actuarial Valuation* three possible options include:

- ❖ **Aggregate** - Aggregate contribution rates, consistent with the plan's Actuarial Cost Method (ACM) and excluding minimum rates, or
- ❖ **90 Percent EANC** - 90 percent of the Entry Age Normal Cost (EANC), consistent with the plan's ACM and including minimum rates under the Board's long-term funding policy, or
- ❖ **100 Percent EANC** - 100 percent of EANC, consistent with the plan's ACM and including minimum rates under the Board's funding policy since 2008.

The preliminary rates for each option outlined above can be found in **Attachment A**. These rates include a supplemental rate from SSB 6214 (Post-Traumatic Stress Disorder), which passed during the 2018 Legislative Session. The supplemental rate for this bill was calculated from the change in the Aggregate contribution rates and can be found in the footnote of **Attachment A**.

I hope the Board finds this information useful during their deliberations. Please don't hesitate to contact me directly should you require any additional information.



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

Sincerely,

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

Attachments

Attachment A – Contribution Rate Options

cc: Dennis Lawson, Chair,
LEOFF 2 Board
Matt Smith, State Actuary,
Office of the State Actuary
Mitch DeCamp, Actuarial Analyst,
Office of the State Actuary

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Attachment A – Preliminary 2019-21 Contribution Rate Options

	Current Adopted Rates	2017 Valuation*		
		Aggregate	90% EANC	100% EANC
Member	8.75%	6.44%	7.74%	8.59%
Local Employer**	5.25%	3.86%	4.64%	5.16%
State	3.50%	2.58%	3.10%	3.44%

*Includes laws of 2018 supplemental rate of 0.05% member, 0.03% employer, and 0.02% state from SSB 6214.

**Excludes DRS administrative expense rate of 0.18%.



Contribution Rate Setting Options

June 20, 2018

Purpose of Contributions

- Pre-fund pension obligation
- Members and employers make contributions to pension trust fund
 - During member's working life
 - As a percent of salary
- Contributions invested and grow with earnings
- Accumulated fund at retirement = Cost of all future benefit payments

About Rate Setting

- Systematic actuarial funding to pre-fund future pension obligation
- Adopted by the Board
- Biennial basis
- Actuary recommendation
- State law defines certain funding policy and some assumptions
- Board funding policy and assumption setting

Two Types of Contribution Rate

- Board adopts two types of contribution rates
 - Basic rates
 - Supplemental rates

Basic Rates

- Rate recommendation and options calculated by OSA
- Rate options calculated based on statute, Board policies, and past practices
- Every even-numbered year (RCW 41.45.0604)
- Based on results of odd-year actuarial valuation
- Valuation is audited by outside actuary
- Rates apply for ensuing biennium, typically two years of same rate

Supplemental Rates

- Temporary rate increases to fund the cost of benefit improvements not included in basic rates
- Added to basic rates during the basic rate setting cycle

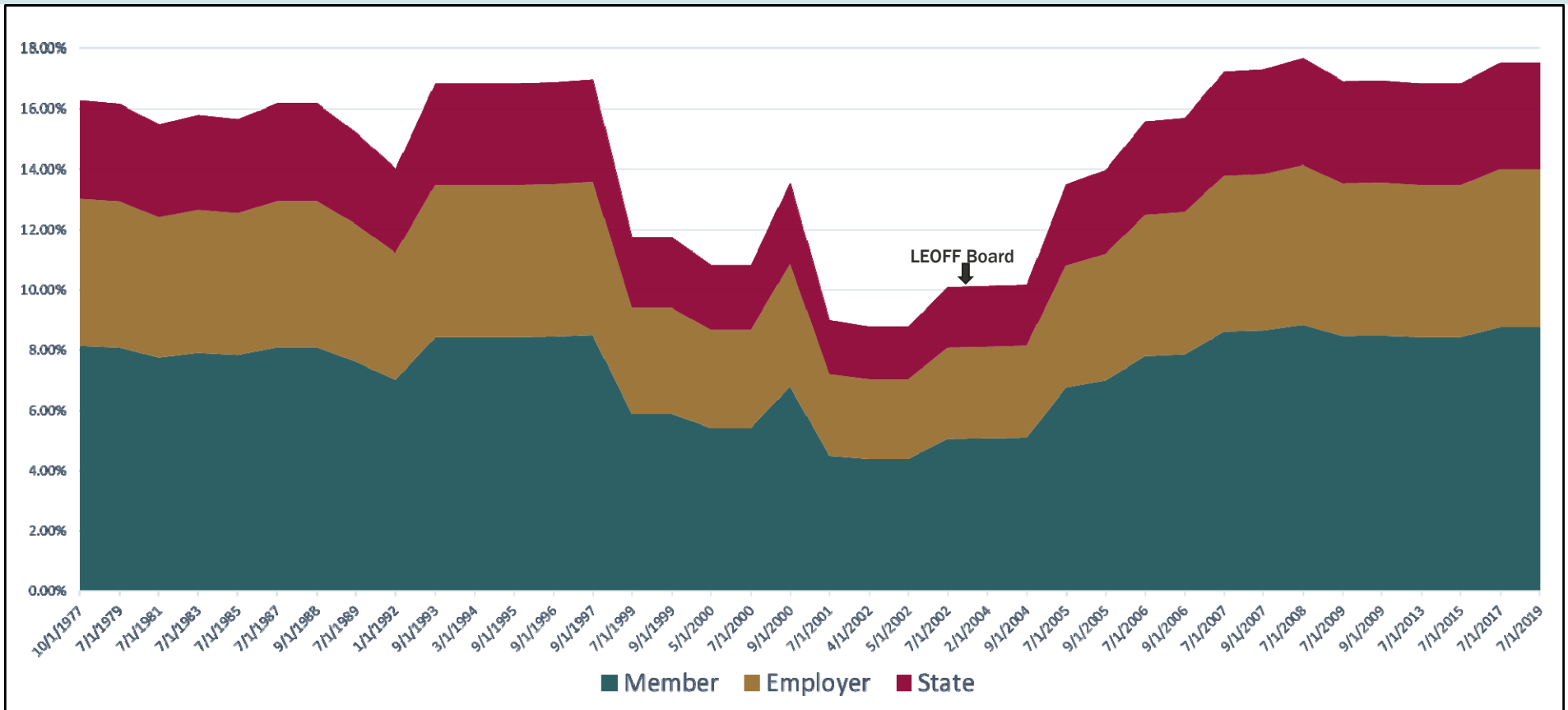
Strategic Priority – Financial Integrity

- **Fully-funded Status**
 - Maintain 100% or better funded status
- **Stable Contribution Rates**
 - Predictable increases

Previous Rate-setting Decisions

- Strategic Plan
- Four-year rate phase-in (2005-2009) / Rate stability
- Contribution rate floor (minimum contribution rates)
- Supplemental rates (2003, 2004, 2005, 2006, 2007, 2009)
- Multi-year rates (eg. 2017-2021)

LEOFF 2 Contribution Rates 1977 to Present



Policy Options

Continuing Current Rates

- The rates currently collected are sufficient to fund the cost of all benefits in LEOFF 2 during the 2019-21 Biennium
- Current rates are based on the *2015 Actuarial Valuation*, include subsequent temporary and supplemental rates prior to the 2018 Legislative Session, and were adopted by the Board through 2021

Policy Options cont.

Adopt Rates Based on the 2017 Actuarial Valuation Results

- The preliminary contribution rate levels based on the *2017 Actuarial Valuation* are lower than the rates currently collected, due in part to the lower economic assumptions and changes in plan experience
- If the Board elects to adopt new rates based on the *2017 Actuarial Valuation* two possible options include:
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 - 100 Percent EANC - 100 percent of EANC, consistent with the plan's ACM and including minimum rates under the Board's funding policy since 2008

Options

	1. Adopt Current Rates	2. Adopt 90% EANC based on 2017 Actuarial Valuation*	3. Adopt 100% EANC based on 2017 Actuarial Valuation*
Member	8.75%	7.69%	8.54%
Employer	5.25%	4.61%	5.13%
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**Excludes the recommended supplemental rate increase of 0.05% member, 0.03% employer, and 0.02% state to account for SSB 6214.*

Next Steps

- Milliman (outside actuary) presents preliminary audit results in July 25, 2018
- Board adoption of contribution rates occurs in July
 - Adopted rates effective July 1, 2019, through June 30, 2021
- Supplemental rate changes can occur outside of the basic rate process



Thank You

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