BOARD MEETING AGENDA
June 18, 2014 - 9:30 AM

LOCATION

STATE INVESTMENT BOARD
Large Conference Room, STE 100
2100 Evergreen Park Drive S.W.
Olympia, WA 98502
Phone: 360.586.2320
Fax: 360.586.2329
recep@leoff.wa.gov

1. Approval Of Minutes - May 28, 2014	9:30 AM
2. DRS Benchmarking Mark Feldhausen, Budget & Benchmarking Director Jan Hartford, Principal - CEM Benchmarking	9:35 AM
3. Actuarial Audit Presentation Mark Olleman, Consulting Actuary - Milliman	10:05 AM
4. Demographic Experience Study and Valuation Results Matt Smith, State Actuary Lisa Won, Senior Actuary	11:00 AM
5. Contribution Rate Setting Process Ryan Frost, Research Analyst	1:00 PM
6. Administrative Update	
• **SCPP Update**	1:30 PM
• **Outreach Activities** Steve Nelsen, Executive Director	
• **Budget Update** Steve Nelsen, Executive Director	
• **October Off-site Meeting** Steve Nelsen, Executive Director	
7. Alternate Revenue - Educational Briefing Ryan Frost, Research Analyst	1:45 PM
8. Possible Executive Session Director's Evaluation and Potential Litigation	2:00 PM
9. Agenda Items for Future Meetings Steve Nelsen, Executive Director	2:55 PM

Lunch is served as an integral part of the meeting.

In accordance with RCW 42.30.110, the Board may call an Executive Session for the purpose of deliberating such matters as provided by law. Final actions contemplated by the Board in Executive Session will be taken in open session. The Board may elect to take action on any item appearing on this agenda.

BOARD MEETING MINUTES

MAY 28, 2014 - DRAFT

TRUSTEE AND STAFF ATTENDANCE

In Attendance	Mr. Kelly Fox, Chair – Olympia Fire District
In Attendance	Mr. Jack Simington, Vice Chair – Kennewick Police Department
In Attendance	Mr. Jeff Holy – Spokane Police Department (Retired)
In Attendance	Mr. Wally Loucks – Spokane County Sheriff's Office
In Attendance	Mr. Mark Johnston – Vancouver Fire Department
In Attendance	Mr. Pat Hepler – Snohomish County Fire District 1
In Attendance	Mr. Paul Golnik – WA Fire Commissioners Association
In Attendance	Mr. David Cline – City of Tukwila
Absent	Senator Sharon Brown – WA State Senator
Absent	Representative Kevin Van De Wege – WA State Representative
In Attendance	Steve Nelsen – Executive Director
In Attendance	Tim Valencia – Deputy Director
In Attendance	Jessica Burkhart – Executive Assistant
In Attendance	Tammy Harman – Administrative Services and Communications Manager
In Attendance	Paul Neal, Senior Legal Counsel
In Attendance	Ryan Frost – Research Analyst
In Attendance	Dawn Cortez – Assistant Attorney General

CALL TO ORDER

The LEOFF Plan 2 Retirement Board met in the Washington State Investment conference room in Olympia, Washington on May 28, 2014. A quorum of the members was present at this meeting.

OPENING

Chair Kelly Fox called the meeting to order at 9:30 AM and requested those present to take a moment of silence to honor those who had fallen since the last the Board meeting.

1. Approval of Minutes

MINUTES APPROVED

It was moved to approve the Board meeting minutes from March 26, 2014. Motion seconded. The Board approved the minutes without objection.

2. Demographic Experience Study Education

Lisa Won, Senior Actuary presented an overview of the Demographic Experience Study including requirements and process. Ms. Won explained that two different experience studies are performed; economic and demographic. Economic focuses on economy, data sources, and national trends every two years. The Demographic Experience Study takes a big picture look with different emphasis and data and is plan specific. The Board receives these results every six years.

3. Local Government DCP Participation – Initial Consideration

Paul Neal, Senior Legal Counsel presented the Initial Consideration on the topic of Local Government DCP Participation. Mr. Neal explained that LEOFF Plan 2 members do not have access to the potentially lower-cost Department of Retirement Systems' Deferred Compensation Plan. 64% of LEOFF 2 members do not have access through their employers.

MOTION	It was moved to research additional aspects of Local Government DCP Participation. Staff will research and bring back options at an upcoming board meeting. Motion seconded and carried unanimously.

4. Final Average Salary Protection – Initial Consideration

Ryan Frost, Research Analyst presented the Initial Consideration on Final Average Salary Protection. Mr. Frost described the issue of members' retirement benefits being reduced if temporary salary reductions after July 1, 2013 occur during their Final Average Salary (FAS) period. Mr. frost provided the background on this issue and legislative history.

MOTION	It was moved to research additional information concerning FAS Protection. Staff will prepare and bring back a Preliminary Report to an upcoming board meeting. Motion seconded and carried unanimously.

5. Administrative Update

Select Committee on Pension policy Update

Director Nelsen reviewed the agenda from the latest SCPP meeting and announced he will be presenting at their June 17, 2014 meeting.

Outreach Activities

During the months of April and May, Director Nelsen attended the following: FOP Leadership Meeting, and the WSCFF Educational Seminar and display booth in Wenatchee. Staff attended the WASPC Conference and display booth in Spokane.

NCPERS Life Insurance

Last year, the board received a presentation from Bill Robinson of NCPERS Life Insurance. Director Nelsen asked the trustees if they would like to move this issue forward. No action was taken.

October off-site Meeting

Each October the staff and trustees have an off-site meeting to review expectations for the coming year. Staff will bring back a proposal to the Board at the June 18, 2014 meeting.

Staff Changes

Director Nelsen announced that Tammy Harman will be the LEOFF Plan 2 Retirement Board's Ombudsman. Jessica Burkhart has been promoted as the Administrative Services Manager, and Jessie Jackson has accepted a six-month probationary offer to be Director Nelsen's Executive Assistant. These changes will take effect in June

2014.

6. Alternate Revenue Update

The Board moved this topic to the June 18, 2014 meeting.

7. Parliamentary Procedure Review

Dawn Cortez, Assistant Attorney General provided the Parliamentary Procedure Review. Ms. Cortez reviewed the differences between Robert's and Reed's Rules. Ms. Cortez recommended the Board adopt Roberts Rules for their parliamentary procedures as this is what is used by many other state boards.

MOTION	It was moved to adopt Robert's Rules of Parliamentary Procedure. Motion seconded and carried unanimously.

8. Annual Attorney General Training

Dawn Cortez, Assistant Attorney General provided the Ethics in Public Service training covering the following issues: Use of trust resources, gifts and prohibitions, meals and travel, and confidential information. These rules can be found in WAC 292-110 and 390. Or the state statutes are RCW 41.04.300, 42.17A, 42.20, and 42.52.

Trustees and staff present watched a 22 minute video created by the Attorney General's Office called the Public Records Act Training. Those who participated signed a document indicating they have received the mandatory state training.

9. Possible Executive Session

The Board broke for executive Session at 11:45-12:00 PM.

10. Agenda Items for Future Meetings

Director Nelsen provided an overview of the Agenda Items calendar. The following agenda topics will be heard at the June meeting: DRS Benchmarking, Actuarial Audit presentation from Milliman, Demographic Experience study, Contribution Rate Setting Process and an Education Briefing on Alternate Revenue.

ADJOURNMENT

There being no further business, the meeting was adjourned at 1:35 PM.

NEXT MEETING	The next meeting of the LEOFF Plan 2 Retirement Board is scheduled for June 18, 2014 at 9:30 AM at the Washington State Investment Board located at 2100 Evergreen Park Drive S.W. Olympia, WA 98502

Actuarial Audit Presentation

Date Presented:
6/18/2014

Presenter Name and Title:
Mark Olleman, Consulting Actuary - Milliman

Summary:
The independent actuary conducting the audit of the Actuarial Valuation and the Demogrphic Experience Studty will be introduced and provide an update on the status of the audit.

Strategic Linkage:
This item supports the following Strategic Priority Goals:
Maintain the financial integrity of the plan.

ATTACHMENTS:

Description	Type
Milliman Actuarial Audit	Presentation

LEOFF Plan 2 Retirement Board Actuarial Audit

June 18, 2014 Board Meeting

Presented by:

Mark Olleman, FSA, EA, MAAA

Daniel R. Wade, FSA, EA, MAAA

Milliman

Agenda

- Your Milliman Team
- Our Approach
- Audit Process
- Interactions with OSA
- Preliminary Observations
- Summary

Your Milliman Team

- Proud to be working for one of Milliman's two oldest clients
  - When Wendell Milliman founded our firm in Seattle in 1947 the Washington State Employees Retirement System was a client.
- Mark, Nick, and Daniel
  - Have worked for public plans for many years
  - Serve many of the nation's largest public plans

Daniel Wade

Mark Olleman

Nick Collier

Milliman

How will Milliman approach the audit?

- Identify any concerns the LEOFF 2 Board may have
- Verify results independently
- Work cooperatively with OSA to improve work product
- Thorough analysis and evaluation of all material information:
  - Data
  - Processes
  - Reports
- Conformance with
  Actuarial Standards of Practice

How will Milliman approach the audit? *(continued)*

- Identify issues which may:
  - Cause a material difference in results
  - Result in improved communications
- Resolve issues
  - Discuss findings with State Actuary
  - Work with State Actuary to understand "why"
- Recognize that differences of opinion may exist in certain areas, particularly with respect to actuarial assumptions
- Communicate clearly to the Board any material areas in which our judgment differs from the State Actuary and explain "why"

Milliman

Audit Process

- Goals
  - Verify financial condition of Plan is accurately reported
  - Evaluate actuarial communication
- Replication audit
  - Most comprehensive approach
  - All calculations are independently replicated based on the same census data, assumptions, and methodology
    - actuarial value of assets
    - actuarial liabilities
    - recommended contribution rates

Milliman

Audit Process *(continued)*

- Preliminary discussions with OSA
- Gather Necessary Information
  - Reports, Methods and Assumptions
  - Member data and assets
  - Applicable Law
- Data
  - Assess accuracy and appropriateness
  - Salary, Service, Birthdates
  - Test for missing elements
  - Compare data provided by DRS to data used by OSA

Milliman

Audit Process *(continued)*

- Experience Study
  - Review assumptions and cost methods
  - Consistency with Actuarial Standards of Practice
  - Professional judgment
  - Economic assumptions consistent with reasonable capital market assumptions
  - Compare to other systems
  - Demographic assumptions
    - Review data associated with actual experience for retirement, termination, death, disability, salary increases, and many other assumptions
    - Review methodology, analysis, and calculations performed on the data
    - Review reasonableness of proposed assumptions to actual experience

Milliman

Audit Process *(continued)*

- Actuarial Assets - Independent Replication
- Valuation Liability Calculations
  - Check Individuals
  - Perform full parallel valuation
  - Compare results to OSA
  - Reconcile differences
- Valuation Funding Calculations
  - Cost methods applied properly
  - Parallel calculations
  - Independent reconciliation of contribution rates

Milliman

Audit Process *(continued)*

- Review of reports
  - Appropriate Information and scope?
  - Clarity: easy to understand?
  - Format: easy to find information?
  - Consistent with Actuarial Standards of Practice (ASOPs)?

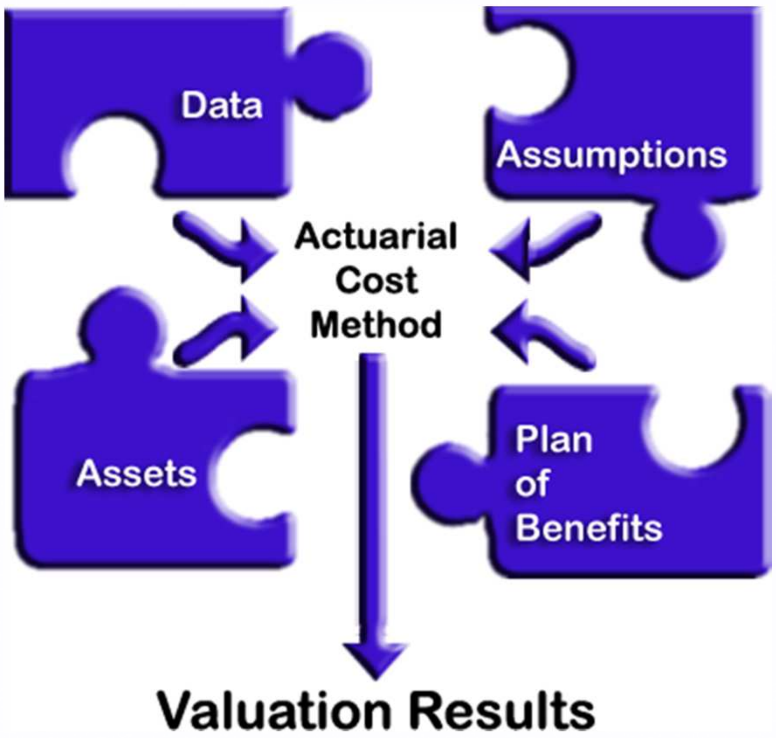
Where Differences May Occur

- Types of differences
  - Objective
    - Data
    - Benefits not reflected correctly
    - Assumptions not applied correctly
    - Application of cost method or smoothing method
  - Subjective
    - Based on actuary's judgment
    - Most often regarding assumptions
    - Discuss with State Actuary to understand "why?"
    - Explain "why" to Board and put it in perspective

Interactions with OSA so Far

- Very professional
  - Open discussion of issues
  - Receptive to different ideas
  - Schedule set up by OSA and used to track progress
  - Advance notice of any changes
  - All requested information provided in a timely manner

PRELIMINARY OBSERVATIONS



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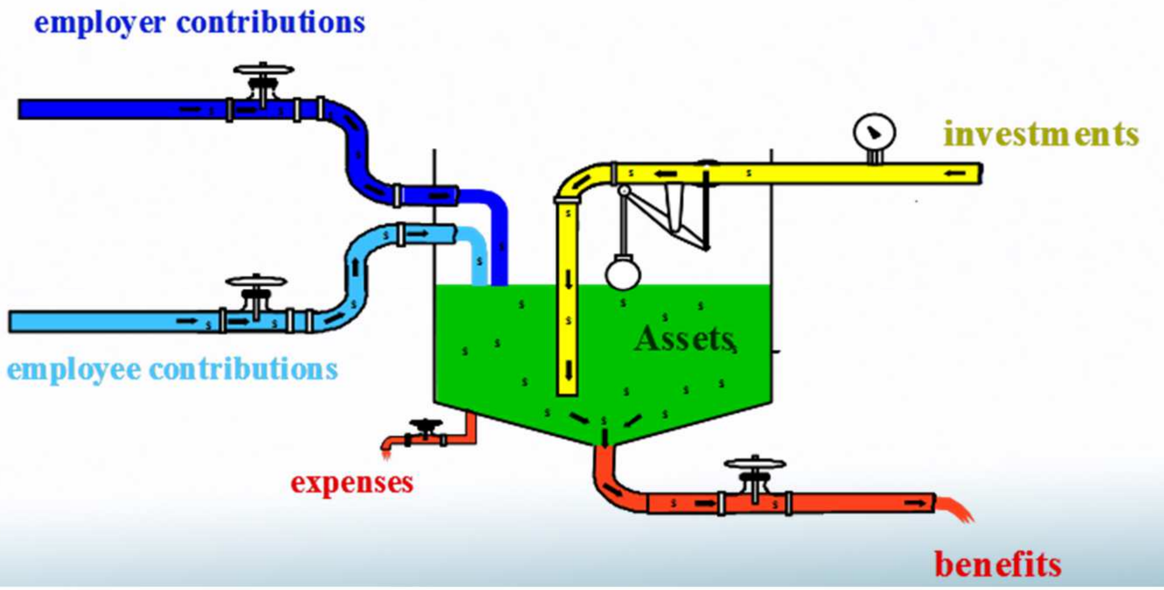
Aggregate Cost Method

- **<u>Aggregate Normal Cost</u>** equals the level % of projected pay to fund the difference between the present value of projected benefits and the actuarial value of assets.
  – All projected contributions go in one bucket, and are
  – spread evenly over the projected value of future salaries.
- Gains and losses cause the normal cost to go up and down.



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Aggregate Cost Method

- Does not calculate liability independent of the assets, however OSA uses Projected Unit Credit to accomplish that.
- All projected future contributions spread over projected salaries
  - Good for agency risk
  - Excellent for demographic matching
- High level of tail volatility management
  - Tail volatility occurs when bases used to amortize Unfunded Actuarial Accrued Liability (UAAL) expire. Since Aggregate does not calculate a UAAL this issue does not exist.
- Conference of Consulting Actuaries Draft White Paper classifies Aggregate as “Acceptable” if supplemental calculations disclose the Entry Age: Normal Cost, Liability and Amortization Period. If not, then “Acceptable with conditions.”

Milliman

Entry Age Normal Cost (EANC)

- Based on the “Entry Age” Cost Method
- **Entry Age Normal Cost** is the level % of pay that will fund a member’s benefit if paid over his or her entire career.
  - Equals **expected** annual cost
  - Very stable
- Expected cost assumes all actuarial assumptions come true.

Experience different than expected will develop a positive or negative Unfunded Actuarial Accrued Liability which for most Systems using the Entry Age cost method causes their contributions to be different than the Normal Cost.

Milliman

LEOFF Plan 2 Funding Policy

- Currently paying fixed rates equal to 100% of the Entry Age Normal Cost
- Temporary funding policy through June 30, 2017
- Considerations
  - Increases short term rate stability (and possibly long term)
  - Provides some margin for adverse experience
  - Avoids contributions less than expected long term cost of benefits
  - Requires consistent monitoring to maintain proper funding since contributions do not automatically adjust to:
    - Experience different than assumed
    - Assumption changes

Mortality

- Two parts
  - Base table: What is the probability today of living another year?
  - Improvement scale: People are living longer. How much longer?
- Base table
  - Milliman is reviewing OSA's work. Preliminary discussions.
  - OSA is testing whether members with larger benefits are living longer.
- Improvement scale
  - OSA is recommending Scale BB.
  - Scale BB is based on Social Security data from 1950 – 2007.
  - Scale BB was tested to be consistent with two large public plans.

Milliman

Membership Data

- Reviewed data supplied by DRS
  - Reviewed for reasonableness
  - Confirmed that all necessary information was included
- Reviewed data used in OSA's valuation
  - Performed independent data editing
    - Edits made for outliers and salary adjustments made for members with less than one year of service.
    - Compared to preliminary participant data summary posted on OSA's website.
  - Conclusion
    - Data used by OSA in valuation looks very good.

Milliman

Membership Data (continued)

LEOFF 2	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	16,687	16,687	100.0%
Total Salaries (millions)	$ 1,597	$ 1,597	100.0%
Average Age	43.5	43.5	100.0%
Average Service	14.6	14.6	100.0%
Average Projected Compensation	$ 95,694	$ 95,708	100.0%
Retirees and Survivors			
Total Number	2,782	2,782	100.0%
Average Monthly Pension	$ 3,151	$ 3,151	100.0%
Number of New Service Retirees	402	403	99.8%
Avg Monthly Pension for New Svc Retirees	$ 4,091	$ 4,082	100.2%
Terminated Members			
Total Number Vested	698	698	100.0%
Total Number Non-Vested	1,565	1,565	100.0%

Milliman

Actuarial Value of Assets

- Smoothing method
  - Layered recognition of gains and losses, with length of recognition based on deviation from expectation (maximum of eight years)
  - Data provided by WSIB and DRS
    - Totals and breakdown by Plan taken from DRS data
    - Monthly cash flows taken from WSIB data.
    - End of Year total market values do not perfectly match between the two sources
- Independent calculation by Milliman based on sources of data
  - Both Milliman and OSA calculated $7.862B for LEOFF Plan 2
- Asset method and calculations are reasonable

Milliman

Summary

- Audit is in progress, so far only preliminary observations.
- Approach
  - Independent verification of results
  - Work cooperatively with OSA to improve work product
  - If any material differences exist, communicate “why” to Board
- Positive interactions with OSA so far
- Does the Board have any specific issues Milliman should address?

Milliman

Your Questions?

Demographic Experience Study and Valuation Results

Date Presented:
6/18/2014

Presenter Name and Title:
Matt Smith, State Actuary
Lisa Won, Senior Actuary

Summary:
The Office of the Sate Actuary (OSA) will provide a preliminary review of the Demographic Experience Study and Actuarial Valuation results.

Strategic Linkage:
This item supports the following Strategic Priority Goals:
Maintain the financial integrity of the plan.

ATTACHMENTS:

Description	Type
Prelim Experience Study/AVR Presentation	Presentation
Prelim Experience Study/AVR Supplemental Handout	Appendix

LEOFF Plan 2 Preliminary Experience Study and Actuarial Valuation Results

Matt Smith, FCA, EA, MAAA,
State Actuary

Lisa Won, ASA, FCA, MAAA,
Senior Actuary

Office of the State Actuary
"Securing tomorrow's pensions today."

June 18, 2014

Today's Presentation

- Highlights from preliminary experience study and actuarial valuation report
- Budget impact of assumption changes and updated contribution rates
- Decisions for July meeting

What Is An Experience Study?

- Review of current assumptions
  - How do they compare with actual experience?
  - Do they need to change?
- Assumptions help us estimate
  - When benefits are paid
  - How much is paid
  - How long they're paid

Why Do We Perform Them?

- Things change
- Ensure assumptions remain reasonable
  - Reasonable assumptions contribute to reasonable funding
- Important part of systematic actuarial funding
- Risk management

How Do We Perform Them?

- They're data driven
  - Over 20 years of experience in some cases
- They also involve professional judgment
  - Past not always the best predictor of future
- Because they involve professional judgment and expertise
  - You hire an actuary to perform studies and certify work
  - You hire an outside actuary to review reasonableness

Why Are The Results Preliminary?

- Concurrent actuarial audit in progress
- The results may change
- Final results available in July

Summary Of Updates To Current Assumptions

- Mortality
  - Changes to reflect lower mortality rates since last study
  - Updates to projected increases in life spans
  - Increases short-term costs
  - Most significant assumption change in this experience study
- Retirement
  - Changes to reflect later retirement
  - Decreases short-term costs
- Termination
  - Changes to reflect fewer terminations
  - Decreases short-term costs

Summary Of Updates To Current Assumptions *(Continued)*

- Disability
  - Adjustments made to overall disability rates and percent duty disability
  - No changes made to percent total disability
  - Increases short-term costs
- Salary increases
  - Changes to “service based” salary increase assumptions
  - Lowered early career increases and extended salary scale
  - Increases short-term costs
- Miscellaneous assumptions
  - Increases short-term costs
- Supporting data provided in Attachments A-F

National Studies Show People Are Living Longer

- Life expectancy has increased about two years per decade since 1960

Year	Life Expectancy
1900	47.3
1920	54.1
1940	62.9
1960	69.7
1980	73.7
2000	76.8
2010	78.8

Life expectancy from birth. U.S. Census Bureau; all races, all genders.

Factors Affecting Future Mortality Trends

- According to Office of the Chief Actuary (OCACT) for SSA, factors contributing to generally rapid overall rate of improvement during past century
  - Access to primary medical care
  - Discovery of and general availability of antibiotics and immunizations
  - Clean water supply and waste removal
  - Rapid rate of growth in standard of living
- According to OCACT, each of these developments is expected to make a substantially smaller contribution to future improvement rates
- According to OCACT, future improvements will depend on
  - Medical technology and innovation
  - Treatment and evolution of existing disease; emergence of new disease
  - Changes in amount/type of physical activity; changes in nutrition
  - Prevalence of obesity and cigarette smoking
  - Other factors not summarized here

Long-Term Rates Of Mortality Improvement

- According to the Society of Actuaries (SOA), long-term averages of U.S. population mortality improvement rates generally hovered around 1.0 percent
- In 2011, life expectancies recommended by an outside Technical Panel to SSA for their intermediate cost projections equate to a long-term improvement rate of 1.26 percent
- In 2013, the CBO assumed a long-term improvement rate of 1.17 percent in their Long-Term Budget Outlook report
- According to SOA, there's a long-standing pattern of lower mortality rates among retirement program participants compared to the general U.S. population

- Between 1900 and 2009, the age-sex-adjusted death rate in U.S. declined at an average rate of 1.10 percent per year
- From 1982 to 2009, the same death rate declined at an average rate of 0.92 percent per year

Mortality Projection Scales

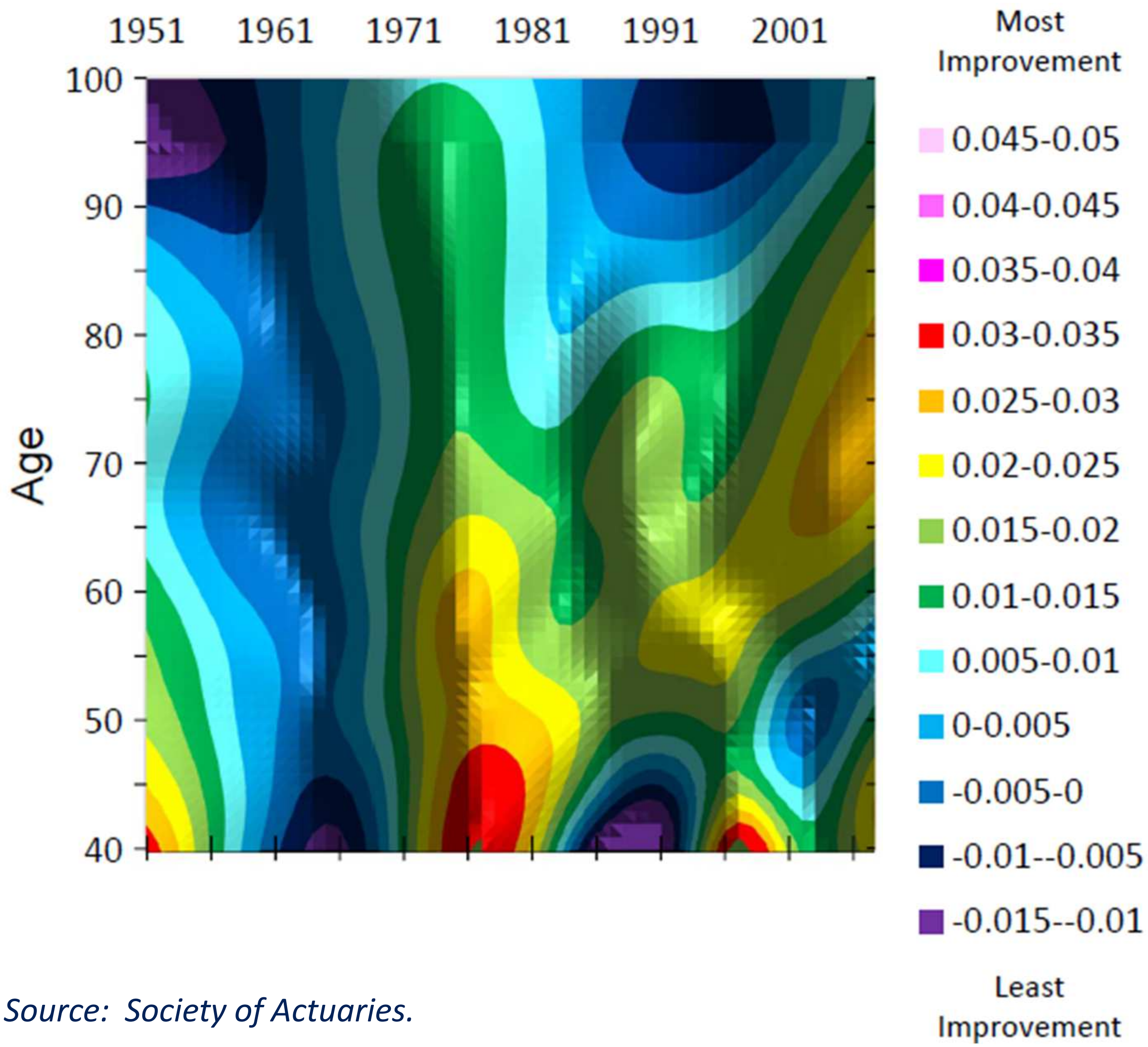
- Several projection scales available from SOA
  - Scale AA
  - Scale BB
  - MP-2014 (proposed; not final)
- Represent rates of improvement (decreases) in future mortality rates
  - Separate rates by gender
- Vary by dimension/format of scale and experience data used to develop scale
  - 1D — age only
  - 2D — age and year of birth
- Current assumption is 50 percent of Scale AA
- Updated assumption is 100 percent of Scale BB

Scale AA

- First projection scale released by SOA in 1995
- Developed using SSA and Civil Service Retirement System data from 1977 to 1993
- Assumed rates of improvement
  - Minimum rate of improvement of 0.5 percent for ages under 85
  - Graded down to 0.1 percent at age 100
  - No improvement at ages over 100
- In late 2009, Retirement Plans Experience Committee (RPEC) of SOA found

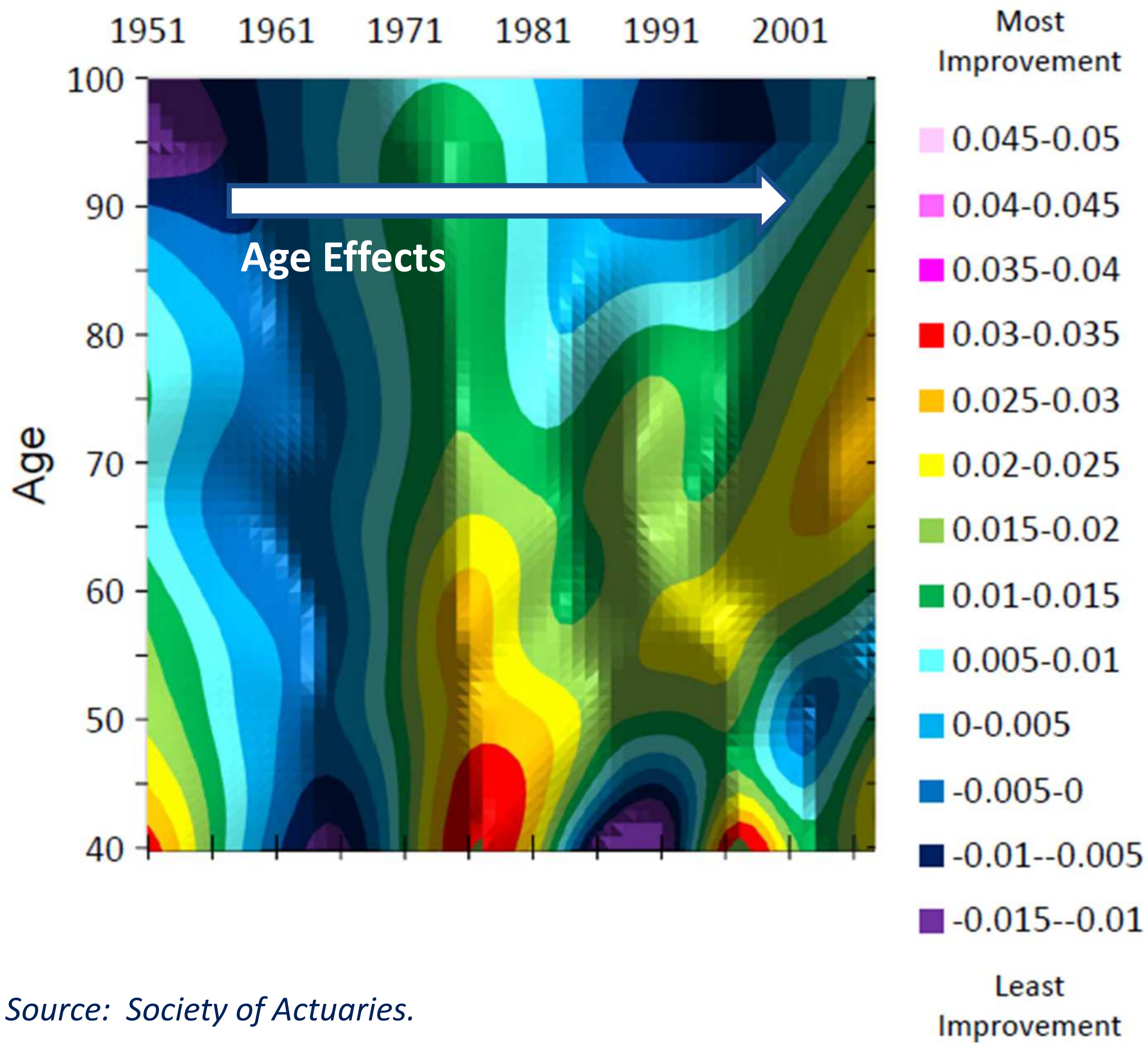
  "… a noticeable degree of mismatch between the Scale AA rates and actual mortality experience for ages under 50, and the Scale AA rates were lower than actual mortality improvement rates for most ages over 55."
- Analysis also showed cohort effects
  - Improvements varying by generations

Observed U.S. Mortality Improvement (Heat Map) - Males



Source: Society of Actuaries.

Observed U.S. Mortality Improvement (Heat Map) - Males



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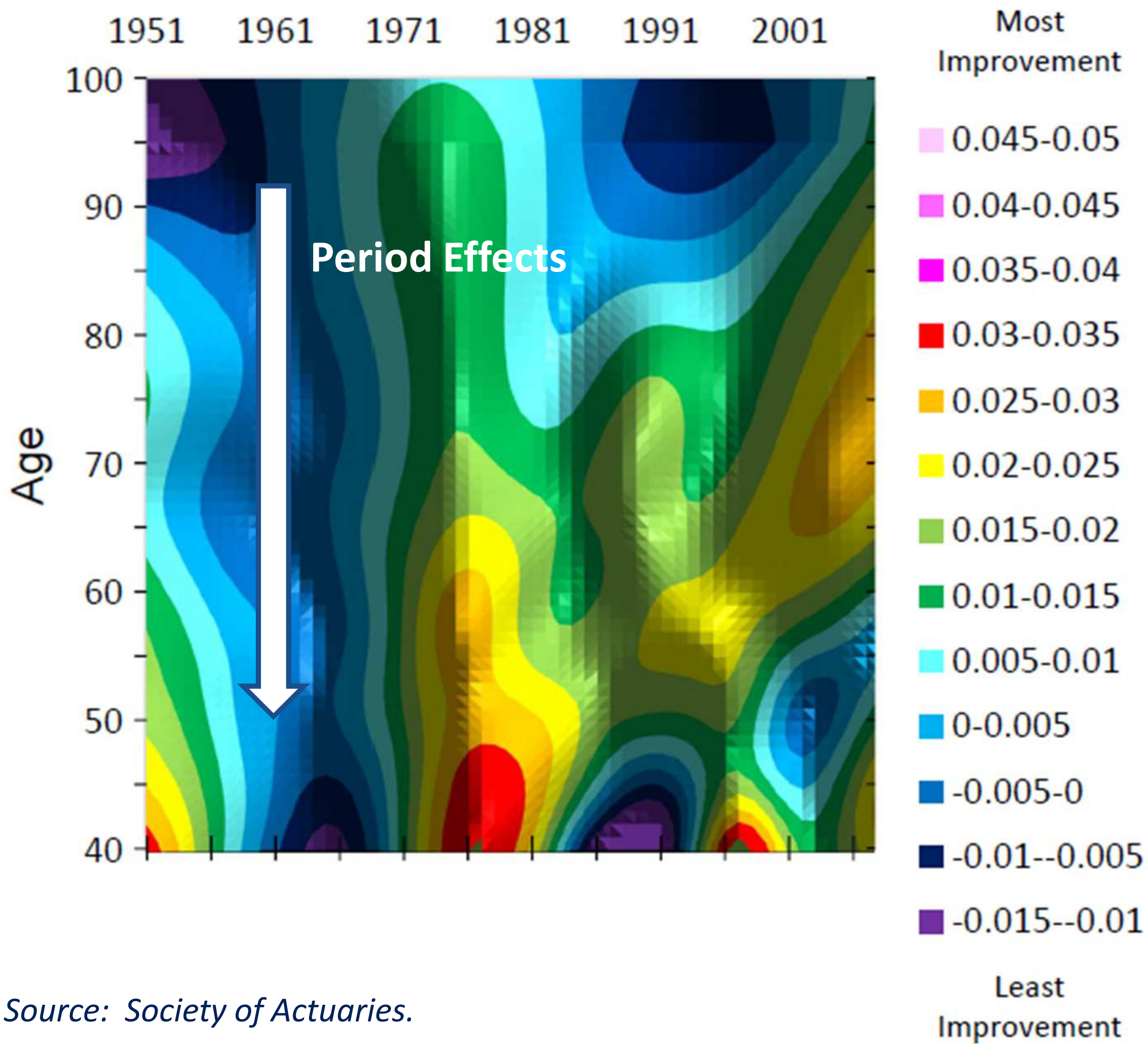
Observed U.S. Mortality Improvement (Heat Map) - Males



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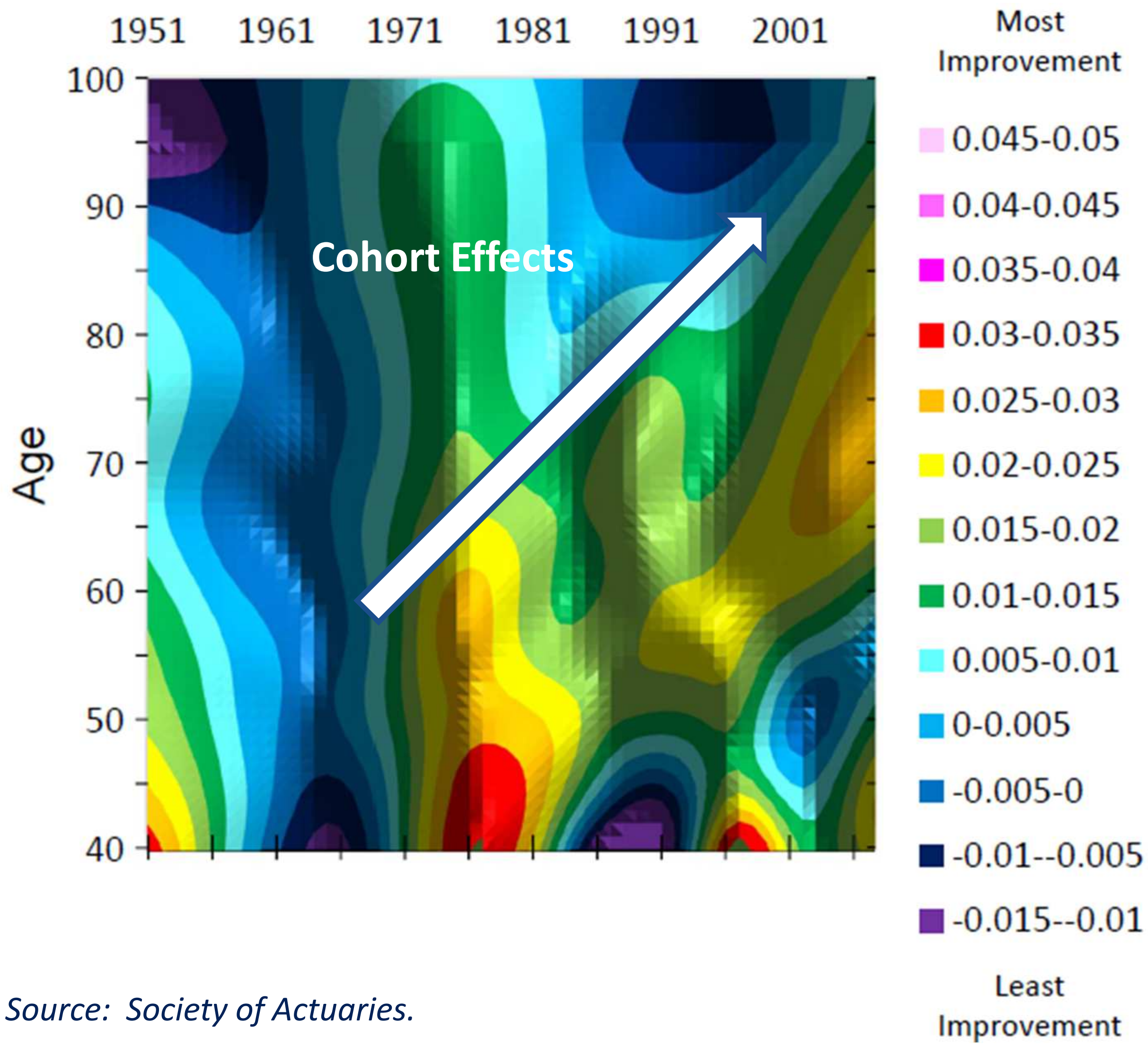
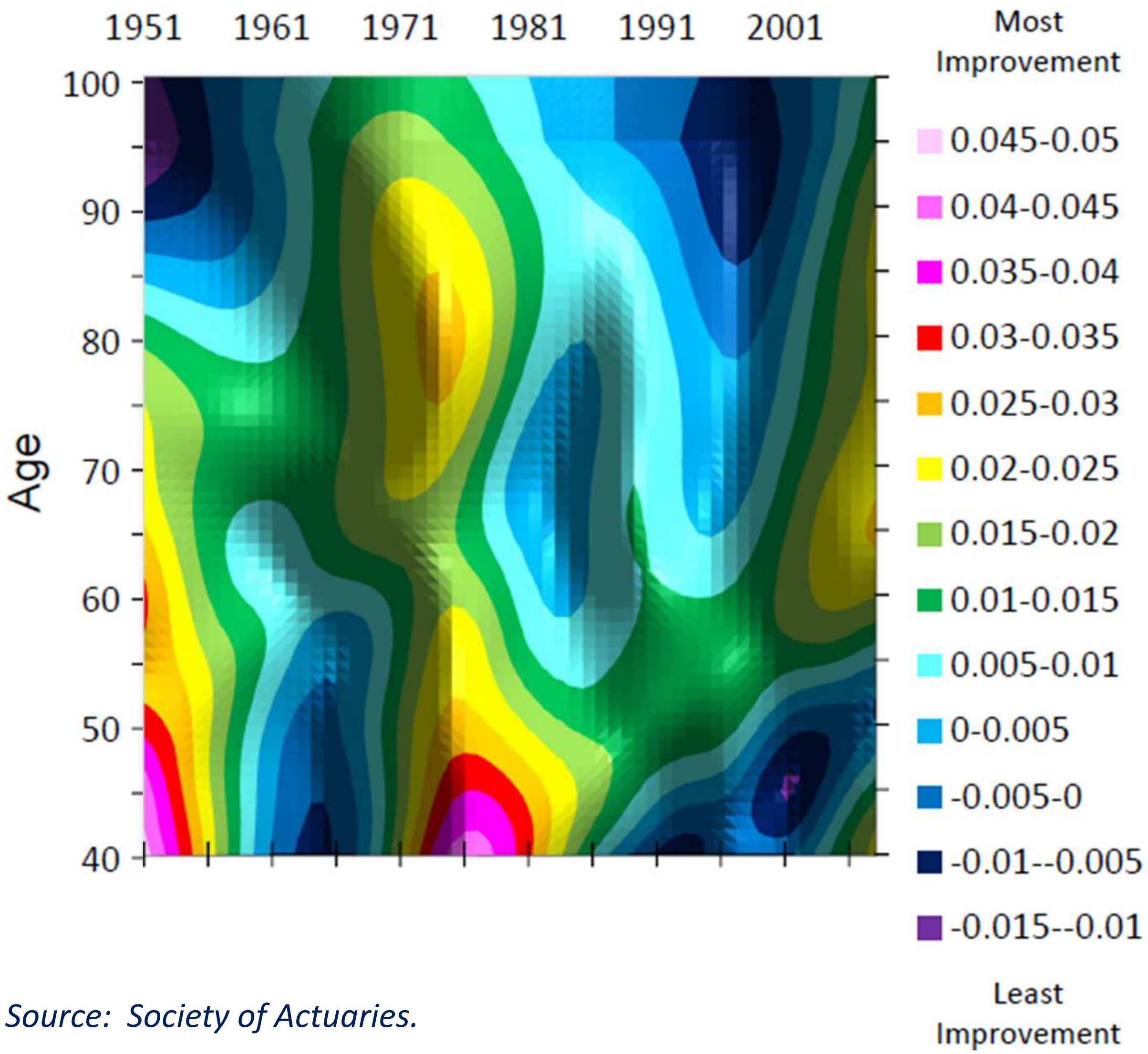
Observed U.S. Mortality Improvement (Heat Map) - Males



Source: Society of Actuaries.

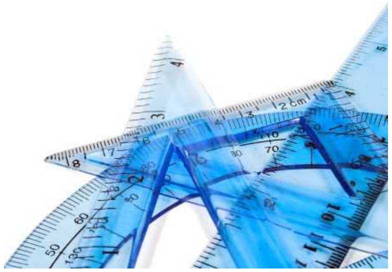
Observed U.S. Mortality Improvement (Heat Map) - Females



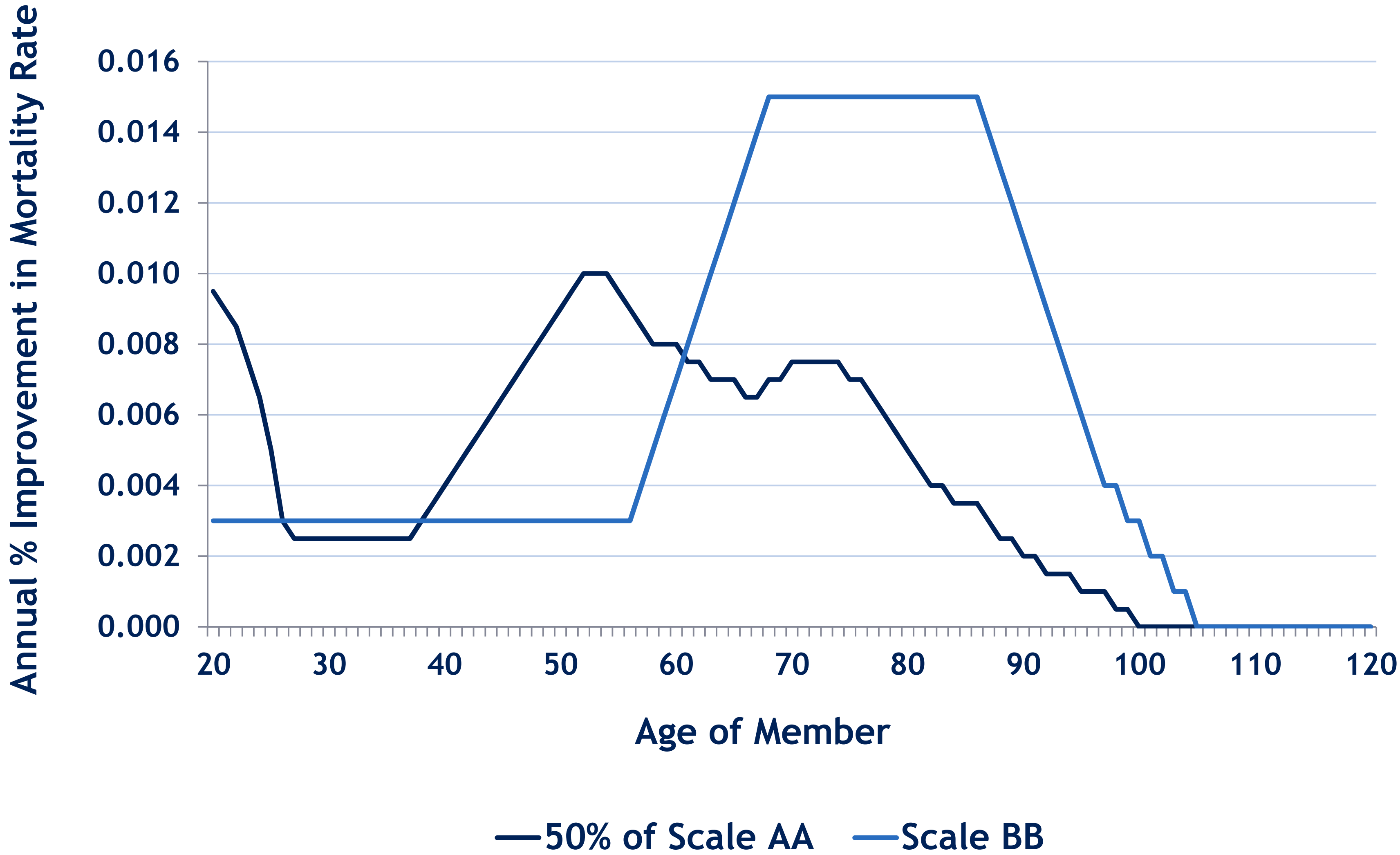
Source: Society of Actuaries.

Scale BB

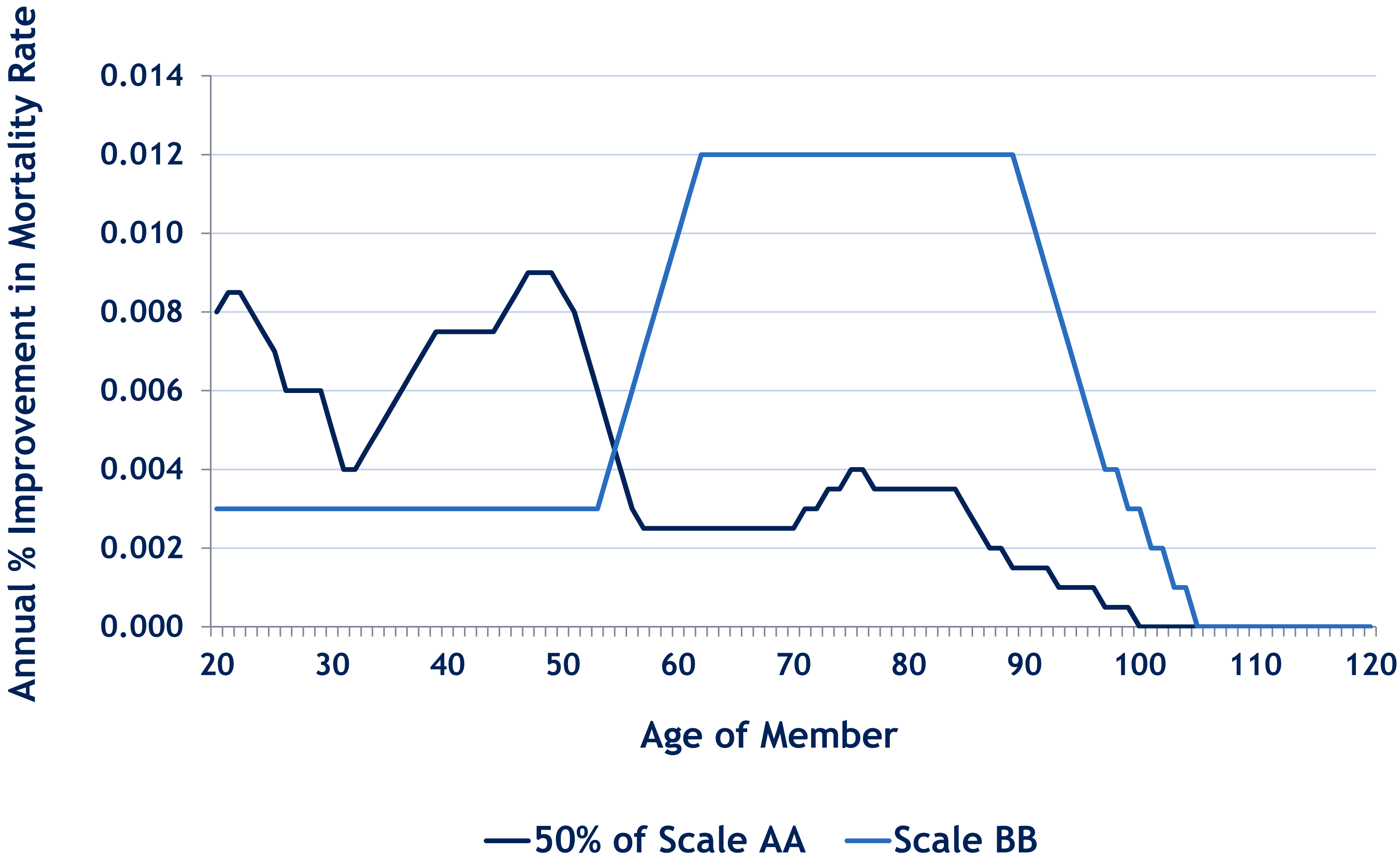
- Interim improvement scale released by SOA in 2012
- Created to replace Scale AA
- Prepare actuaries for upcoming 2D improvement scale
- Developed using SSA data from 1950 to 2007
- Assumed rates of improvement for 2D table
  - Long-term rate of 1 percent for all ages through 90
  - Decreasingly linearly from 90 to 120
  - Convergence periods of up to 20 years for age/period effects and ten years for cohort effects
- 2D table converted to an approximate 1D table



Comparison Of Current Assumption To Updated Assumption - Males



Comparison Of Current Assumption To Updated Assumption - Females



How Much Mortality Improvement Do We See In Washington?

	% of Scale AA	% of Scale BB
1984-2012	109%	78%
1990-2012	152%	97%
1996-2012	204%	127%
2001-2012	143%	136%

For PERS, TRS, SERS, PSERS, LEOFF, and WSPRS combined.

Comparison Of Life Expectancies – Age 65*

In 2014	50% of Scale AA (Current Assumption)	100% of Scale AA	100% of Scale BB (Updated Assumption)
Male	83.1	83.7	84.1
Female	85.4	85.7	86.4
In 2024			
Male	83.5	84.4	85.1
Female	85.6	86.1	87.3
In 2034			
Male	83.9	85.1	86.2
Female	85.8	86.6	88.2

**All based on RP-2000 combined mortality table with mortality projection to the year indicated above. No projection of mortality improvement beyond the year indicated above.*

Recap On Mortality

- Current improvement assumption is 50 percent of Scale AA
- U.S. and Washington state data shows observed mortality improvement rates exceed current assumption
- Lower mortality rates among retirement program participants compared to the general U.S. population
- RPEC of SOA recommends, subject to materiality and the actuary's specific knowledge of covered group, use of Scale MP-2014 [when final] for all retirement programs in the U.S.
  - Additional information on Scale MP-2014 in Appendix
- Until MP-2014 becomes final, Scale BB represents the interim 1D table that approximates the 2D Scale MP-2014
- Updated assumption is Scale BB for this experience study

Retirement Experience

- Changes to reflect later retirement
- Adjusted rates to closer model actual experience

LEOFF2 Retirement Experience by Age 1995-2012*					
	Males & Females				
Age	Actual	Old Expected	Old A/E	New Expected	New A/E
49-54	631	968	0.65	912	0.69
55-59	626	1,212	0.52	880	0.71
60-64	267	417	0.64	345	0.77
65-69	71	56	1.27	58	1.22
70+	5	10	0.50	10	0.50
Total	1,600	2,662	0.60	2205	0.73

**Omitted 2001 and 2007 due to odd-length valuation periods.*
Totals and ratios may not agree due to rounding.

rmination Experience

Changes to reflect fewer terminations

LEOFF2 Termination Experience 1995-2010*					
		Old		New	
Service	**Actual**	**Expected**	**Old A/E**	**Expected**	**New A/E**
0-4	1,752	1,846	0.95	1,804	0.97
5-9	796	879	0.91	788	1.01
10-14	512	544	0.94	501	1.02
15-19	267	277	0.96	304	0.88
20-24	123	148	0.83	131	0.94
25-29	23	40	0.57	26	0.88
30+	0	0	0	0	0
Total	3,473	3,734	**0.93**	3,556	**0.98**

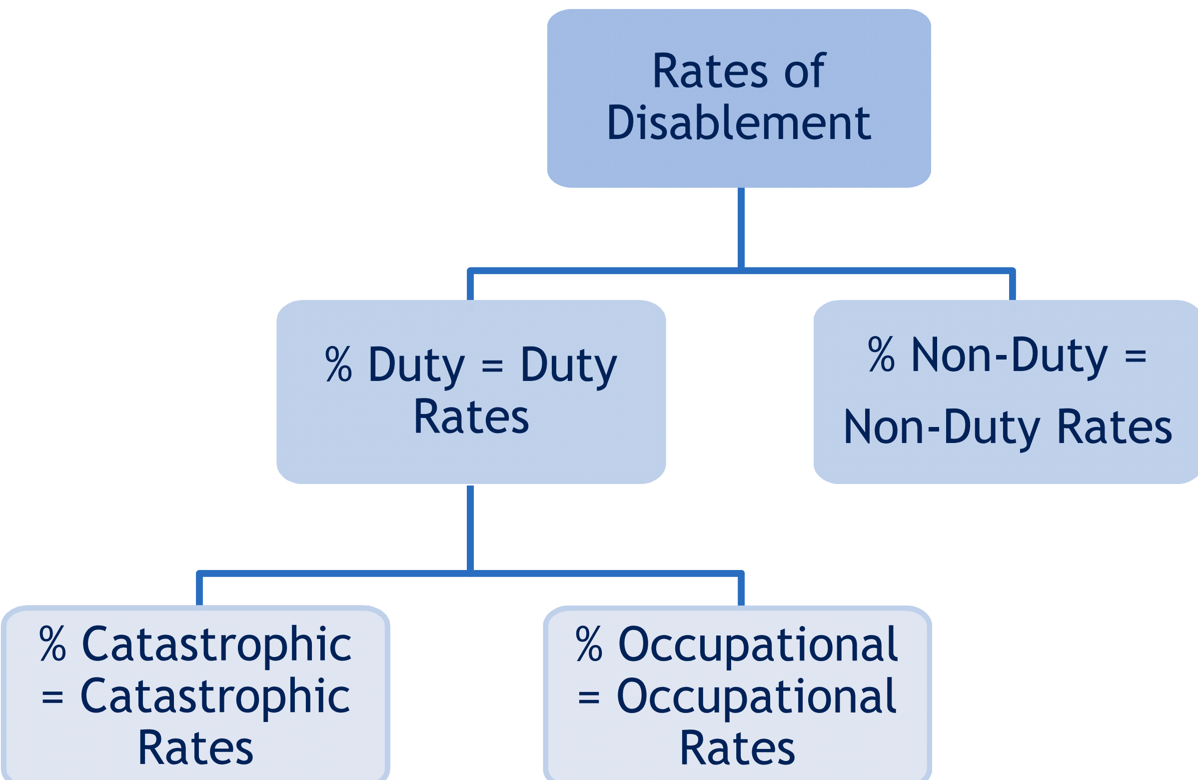
**Omitted 2001 and 2007 due to odd-length valuation periods.*
Totals and ratios may not agree due to rounding.

story Of Disability Plan Provisions

Office of the State Actuary

- Prior to 2004
  - No distinction between duty and non-duty disablements
- 2004 (C4, L04)
  - Choice of 150 percent refund or actuarially reduced benefit with 10 percent minimum for duty-related disablement
- 2005 (C451, L05)
  - Unreduced duty-disability benefit added (occupational)
- 2006 (C39, L06)
  - Catastrophic duty-disability benefit added
- 2007 (C490, L07)
  - Occupational disease expansion
- 2010 (C259, L10)
  - Medical premium reimbursement for catastrophic disability

tuarial Model For Disability Benefits



sability Experience

- Adjustments made to overall disability rates moving them closer to actual experience

LEOFF 2 Disability Experience 2005-2012*					
Age	Actual	Old Expected	Old A/E	New Expected	New A/E
20-24	0	0	0	0	0
25-29	1	5	0.22	3	0.37
30-34	2	16	0.12	10	0.21
35-39	11	39	0.28	24	0.47
40-44	16	57	0.28	34	0.47
45-49	22	74	0.3	44	0.5
50-54	56	95	0.59	58	0.96
55-59	41	58	0.71	44	0.93
60-64	16	17	0.94	18	0.9
65+	1	3	0.39	2	0.62
Total	**166**	**364**	**0.46**	**237**	**0.70**

**Omitted 2007 due to odd-length valuation period. Totals and ratios may not agree due to rounding.*

Duty Disability Experience

- Current assumption is good overall fit
- Minor adjustment made to reflect change in percent of fire fighters for the plan (percent fire fighters increased from 43 percent to 45 percent)
  - Assumes 100 percent of fire fighter disabilities are duty related
  - Assumes law enforcement officer duty-related disabilities are 95 percent at age 20 decreasing to 70 percent at age 55

Catastrophic Disability Experience

- Original assumption was 18 percent when the benefit was created
  - No experience was available
  - Future expectations only
- Assumption adjusted to 12 percent as a result of 2009 study
- Current study shows actual rate of 13 percent
  - Assumption remains unchanged at 12 percent

Service Based Salary Experience

- Actual experience was about 0.30 percent lower than assumed
- Assumption was lowered by 0.10 percent to 0.30 percent at most service levels
- We observed service based salary increases beyond 20 years of service so we extended the assumption to model that experience

LEOFF — All Plans			
Service Based Salary Increase Assumption			
Service	Actual	Old Assumption	New Assumption
1	10.74%	11.00%	10.70%
2	7.42%	7.70%	7.50%
3	5.58%	6.10%	5.90%
4	3.64%	4.00%	3.70%
5	2.52%	2.80%	2.60%
10	1.51%	1.70%	1.70%
15	1.18%	1.30%	1.20%
20	1.22%	1.10%	1.00%
25	0.47%	0.00%	0.50%
30	0.00%	0.00%	0.00%

Next Up

- Preliminary valuation results
  - June 30, 2013
  - Includes all updated demographic assumptions from experience study (ExpStudy)
- Budget impacts
  - Include results from latest actuarial valuation plus all updated assumptions

Measuring Plan Health

- Has everything happened as planned?
- Are we on track with our systematic actuarial funding plan?
- Funded status is one key measure

Funded Status

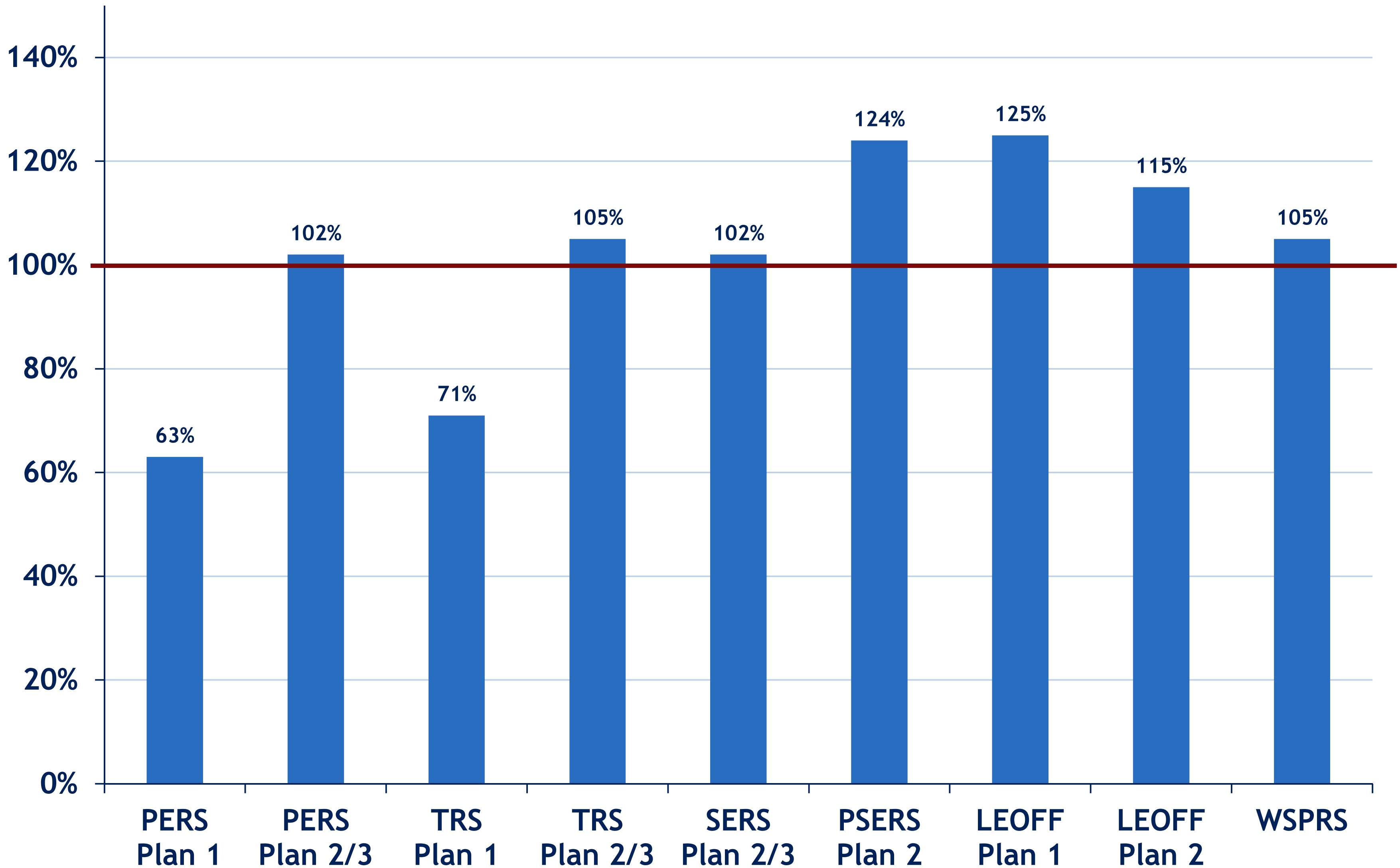
- Comparison of plan assets to today's value of earned pensions
  - Point-in-time measurement
- A funded status of at least 100 percent means a plan has at least $1 in assets for each $1 of earned pension liability
  - On track with systematic actuarial funding plan

LEOFF 2 Funded Status

Funded Status At June 30			
(Dollars in Millions)			
		2013	2012
a.	Present Value of "Earned" Benefits	$6,859	$6,071
b.	Market Value of Assets	7,637	6,640
c.	Deferred Gains/(Losses)	(225)	(581)
d.	Actuarial Value of Assets (b-c)	7,862	7,222
e.	Unfunded Liability (a-d)	($1,003)	($1,150)
f.	**Funded Ratio (d/a)**	115%	119%

Note: Totals may not agree due to rounding.

Funded Status By Plan At June 30, 2013



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LEOFF Funded Status At June 30, 2013

Funded Status on an Actuarial Value Basis		
(Dollars in Millions)	LEOFF	
	Plan 1	Plan 2
Accrued Liability	$4,410	$6,859
Valuation Assets	$5,516	$7,862
Unfunded Liability	($1,107)	($1,003)
Funded Ratio		
2013*	**125%**	**115%**
2012	135%	119%
2011*	135%	119%
2010*	127%	119%
2009*	125%	128%
2008*	128%	133%
2007*	123%	129%
2006*	117%	116%
2005*	114%	114%
2004	109%	117%
2003	112%	125%
2002	119%	137%
2001*	129%	154%
2000*	136%	161%

**Assumption or method change.*

LEOFF Funded Status With Different Interest Rate Assumption

Funded Status				
	At 1% Lower Interest Rate Assumption		At 1% Higher Interest Rate Assumption	
(Dollars in Millions)	Plan 1	Plan 2	Plan 1	Plan 2
Accrued Liability	$4,844	$8,212	$4,039	$5,808
Valuation Assets	$5,516	$7,862	$5,516	$7,862
Unfunded Liability	($673)	$349	($1,477)	($2,054)
Funded Ratio				
2013	**114%**	**96%**	**137%**	**135%**
2012	124%	100%	146%	140%

Up Next: Preliminary Budget Impacts

- Concurrent outside audit in progress
  - Results may change
- 2015-17 and 2017-19 budget impacts only
  - No long-term impacts provided
- Assumptions updated again in six years
- Actual costs based on actual benefits paid and actual investment returns on contributions made

Preliminary 2015-17 and 2017-19 Budget Impacts

Increase in Budget			
(Dollars in millions)	Before ExpStudy 100% EANC	After ExpStudy 90% EANC	After ExpStudy 100% EANC
2015-2017			
General Fund	$3	($10)	$13
Non-General Fund	$0	$0	$0
Total State	$3	($10)	$13
Local Government	$4	($15)	$20
Total Employer	$7	($24)	$34
Total Employee	$7	($24)	$34
2017-2019			
General Fund	$3	($11)	$15
Non-General Fund	$0	$0	$0
Total State	$3	($11)	$15
Local Government	$5	($16)	$22
Total Employer	$8	($27)	$37
Total Employee	$8	($27)	$37

Budget impacts reflect difference between current contribution rates and the rates from the preliminary 2013 AVR only.
Totals may not agree due to rounding.

Preliminary 2015-17 Contribution Rates

Employee and Employer/State Contribution Rates				
	Adopted	Before ExpStudy 100% EANC	After ExpStudy 90% EANC	After ExpStudy 100% EANC
Employee	8.41%	8.60%	7.97%	8.85%
Employer*	5.05%	5.16%	4.78%	5.31%
State	3.36%	3.44%	3.19%	3.54%

**Excludes current administrative expense rate of 0.18%.*

Decisions For The July Meeting

- Maintain current rates through 2015-17
  - 8.41% Employee
- 90% EANC rate from 2013 AVR
  - 7.97% Employee
- 100% EANC rate from 2013 AVR
  - 8.85% Employee

Additional References

- Supporting experience study data
  - Attachments A-F
- Staff at OSA
- Full experience study report and AVR available this fall

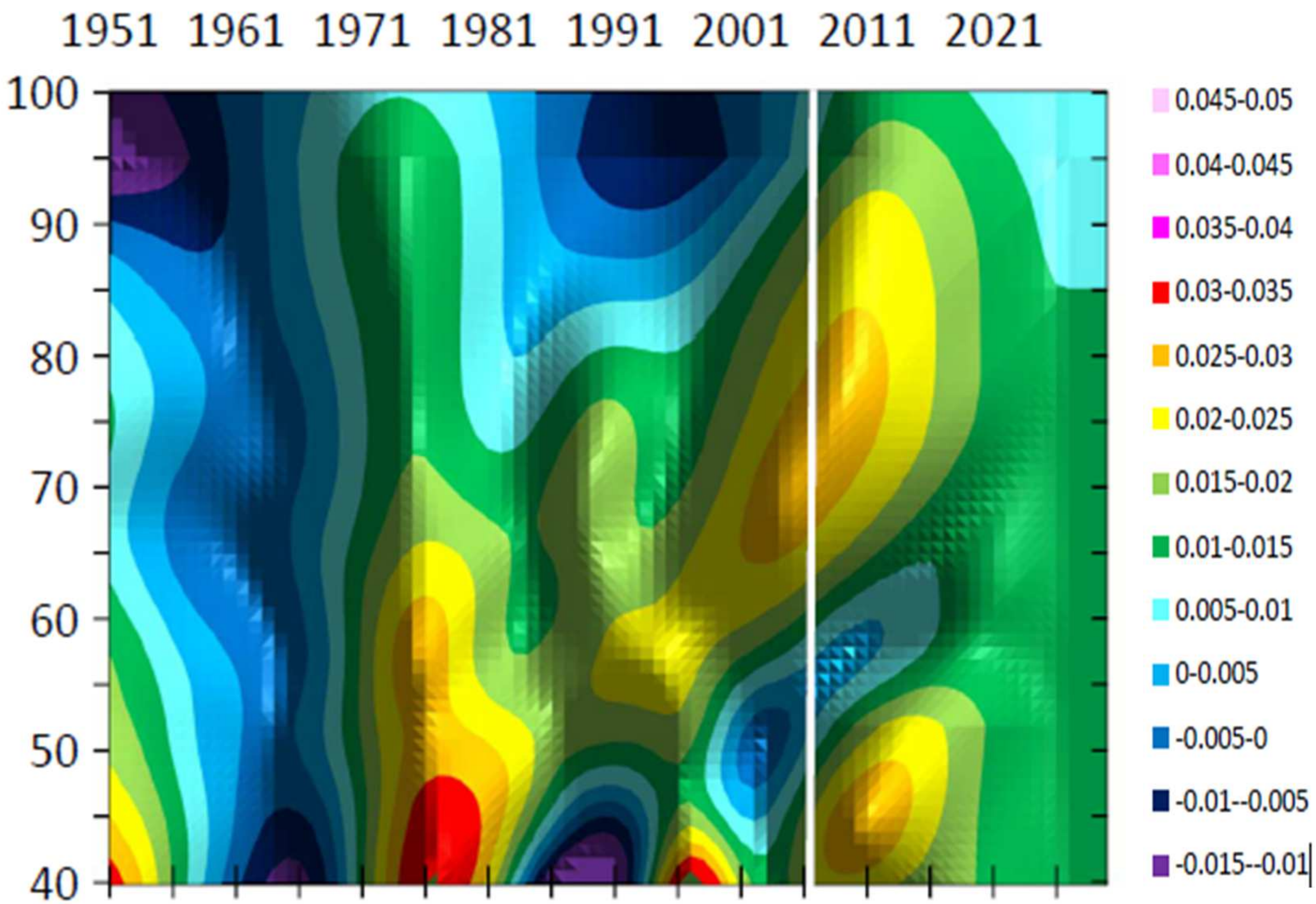
Appendix

- Information on mortality improvement scale MP-2014

Scale MP-2014

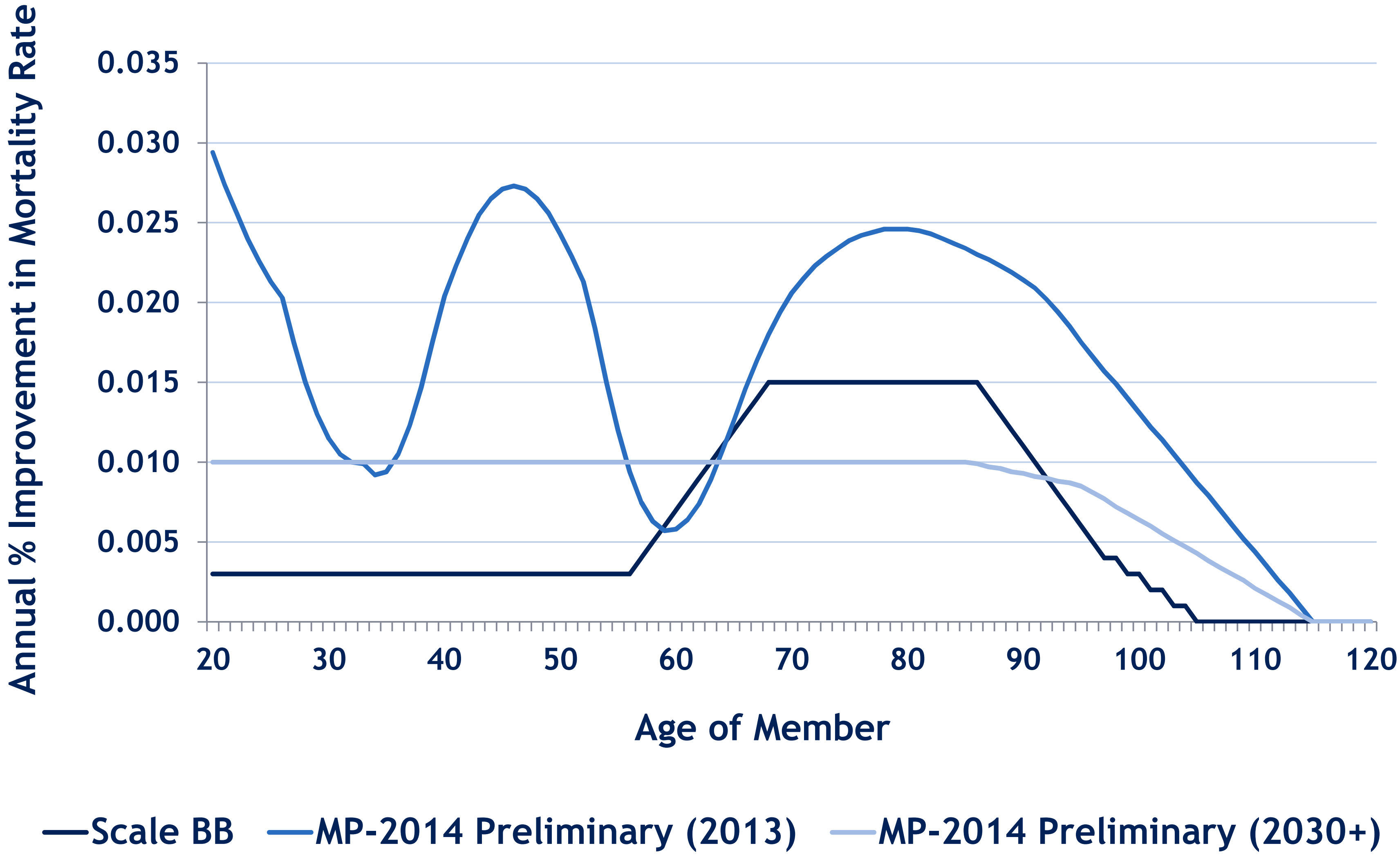
- Proposed 2D scale to replace Scale BB
  - Improvement rates by age and year of birth
- Not yet final; adoption expected later this year
- Theoretical framework patterned after the mortality projections used to develop Scale BB-2D
  - Short-term mortality improvement based on recent experience;
  - Long-term improvement rates based on expert opinion; and
  - Short-term improvement rates blend smoothly into long-term assumption rates over an appropriate transition period

MP-2014 Heat Map – Males



Source: Society of Actuaries.

Comparison Of Updated Assumption To Scale MP-2014 - Males



Attachment A

LEOFF 2 Mortality

Mortality Rates for Active Employees and Retirees Without Disabilities								
	New				Old			
Plan	Mortality Rates	Projection*	Male Age Offset	Female Age Offset	Mortality Rates	Projection**	Male Age Offset	Female Age Offset
LEOFF 2	RP 2000 H	Scale BB	(1)	1	RP 2000 H	2034	(1)	1

Mortality Rates for Retirees With Disabilities								
	New				Old			
Plan	Mortality Rates	Projection*	Male Age Offset	Female Age Offset	Mortality Rates	Projection**	Male Age Offset	Female Age Offset
LEOFF 2	RP 2000 D	Scale BB	0	0	RP 2000 D	2034	0	0

**Projection uses 100% of Scale BB on a generational basis.*
***Projection uses 50% of Scale AA to a static projection year.*
RP 2000 H is the Combined Healthy Mortality Table published by the Society of Actuaries (SOA) in the year 2000.
RP 2000 D is the Combined Disabled Mortality Table published by the SOA in the same year.

The following tables provide a sample of the New and Old mortality rates by system. The New mortality rates have been projected to the year 2034 using 100 percent of Scale BB, whereas the Old mortality rates have been projected to the year 2034 using 50 percent of Scale AA.

We chose the year 2034 for illustration purposes only. The 2013 Actuarial Valuation will use the New mortality rates on a generational basis. Comparatively, the prior valuations used the Old mortality rates projected to a specified static year that was unique to each retirement plan.

Healthy Mortality Rates (Projected to 2034)				
Plan	Male		Female	
Type	New	Old	New	Old
20	0.000311	0.000249	0.000173	0.000146
25	0.000339	0.000317	0.000193	0.000169
30	0.000372	0.000378	0.000277	0.000259
35	0.000634	0.000645	0.000464	0.000426
40	0.000922	0.000891	0.000699	0.000599
45	0.001261	0.001119	0.001104	0.000931
50	0.001801	0.001467	0.001672	0.001385
55	0.002886	0.002310	0.002606	0.002696
60	0.004682	0.004524	0.004131	0.005340
65	0.007482	0.008883	0.007266	0.010060
70	0.011845	0.015330	0.012324	0.017063
75	0.020278	0.026698	0.020541	0.027021
80	0.034651	0.048850	0.033684	0.045073
85	0.059686	0.088566	0.057297	0.077988
90	0.114256	0.155469	0.099278	0.137409
95	0.204305	0.242309	0.167376	0.198510
100	0.298141	0.330207	0.221058	0.244834
105	0.392003	0.392003	0.307811	0.307811
110	1.000000	1.000000	1.000000	1.000000

Disabled Mortality Rates (Projected to 2034)				
Plan	Male		Female	
Type	New	Old	New	Old
20	0.020379	0.016316	0.006727	0.005670
25	0.020379	0.019034	0.006727	0.005867
30	0.020379	0.020730	0.006727	0.006283
35	0.020379	0.020730	0.006727	0.006176
40	0.020379	0.019696	0.006727	0.005768
45	0.020379	0.018082	0.006727	0.005670
50	0.026161	0.021307	0.010415	0.008629
55	0.032000	0.025619	0.013952	0.014436
60	0.033110	0.031995	0.015518	0.020057
65	0.033282	0.039514	0.018591	0.025739
70	0.037436	0.048450	0.024965	0.034565
75	0.049091	0.064631	0.034646	0.045576
80	0.065424	0.092234	0.047967	0.064186
85	0.084704	0.125690	0.066469	0.090472
90	0.125919	0.171339	0.096151	0.133080
95	0.217995	0.258545	0.158517	0.188004
100	0.311097	0.344556	0.214407	0.237467
105	0.397886	0.397886	0.293116	0.293116
110	1.000000	1.000000	1.000000	1.000000

Description Of Approach To Analyzing Mortality

Setting A Mortality Improvement Assumption

Experience indicates that the use of 100 percent of Scale BB would be prudent. Primarily, we focused the analysis on PERS and TRS, noting that the remaining systems accounted for less than 10 percent of deaths across all timeframes studied, but all systems were reviewed as part of the analysis. Mortality improvement was studied by age. Certain ages were excluded if limited data led us to believe the results were unreliable. The table below summarizes the observed mortality improvement, as a percent of Scale AA and Scale BB, split into four data windows.

	% of Scale AA	% of Scale BB
1984-2012	109%	78%
1990-2012	152%	97%
1996-2012	204%	127%
2001-2012	143%	136%

For PERS, TRS, SERS, PSERS, LEOFF, and WSPRS Combined.

Use Of Standard Mortality Table

We believe we have sufficient data to develop our own mortality tables by fitting a standard table to the observed experience. The latest experience supports the continued use of the RP-2000 Combined Healthy Mortality (with age adjustments where warranted) for the healthy populations and projected improvements in mortality. We do not believe a separate table is required for actives and retirees. We believe the continued use of the combined table is appropriate because of the early retirement ages in our plans. Many early retirees (healthy) from these plans start collecting their plan benefit, but do not retire from the workforce. As such, we believe active mortality is a better predictor of future mortality for these early retirees than an annuitant-based mortality table.

Development Of Age Offsets

When age offsets are negative, it means people of a given age are expected to be generally healthier than others their age. In other words, their mortality experience is expected to be similar to younger people. Conversely, a positive age offset means mortality experience for a given age is expected to match that of a higher age in the general population. In terms of establishing age offsets, we extended the study period to 12 years of data (2001-2012) for purposes of minimizing the volatility in our analysis. Generally, the new age offset assumptions did not change by more than one year since the last experience study.

Analysis Of Disabled Mortality

Given the use of Scale BB with the Healthy mortality tables and the observed disabled mortality experience from our latest study, we decided to apply Scale BB for disabled mortality improvements. We also believe the same factors that improve mortality for populations without disabilities will apply to populations with disabilities. Otherwise, we did not make any changes to the disabled mortality assumptions since the last experience study. We will continue to use the RP-2000 Combined Disabled Mortality table for all plans (except LEOFF 1, which relies on the combined healthy table). We will also maintain the zero age offset assumption for males and females in all plans (except LEOFF 1, which uses a +2 age offset).

Application Of Mortality Assumptions In Valuation Software

Lastly, we simplified the approach to applying mortality improvement and age offset assumptions from the last study. Specifically, we applied age offsets directly to the RP-2000 tables and used generational mortality improvements to project mortality rates every year thereafter. The old methodology projected the RP-2000 table to the mid-point of the experience study period, applied the age offsets, then further projected the table to a static year in the future for purposes of approximating the liability impact of using generational mortality improvements. The projection to a future static year for this approximation is no longer necessary when we project improvements on a generational basis.

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Attachment B

LEOFF 2 Retirement Rates

High-Level Takeaways

In general, we continue to observe members retiring later than expected. When members work longer, we see fewer observed retirements per year. As a result, we lowered existing retirement rate assumptions (as developed in the prior study) toward the level of observed retirements.

We saw that the data during the Great Recession reduced the ratio of actual-to-expected retirements in some systems by approximately half. However, we chose not to exclude the Great Recession data for the Public Safety systems (LEOFF, PSERS, and WSPRS) since we observed that actual retirement rates appeared to return to pre-recession levels much faster. We suspect this is due to higher incomes and/or benefit adequacy.

Summary

In LEOFF 2, actual retirements have been consistently lower than expected. As a result, we made additional changes to the retirement assumptions this experience study, moving the actual-to-expected ratio from 0.60 to 0.73.

Observed Experience

Fewer LEOFF2 members retired during the study period than expected. The following table shows the actual and Expected retirements by age using the Old assumptions.

LEOFF Retirement Experience by Age			
Age	Plan 2 (Males & Females)		
	Observed	Expected	Ratio
49-54	631	968	0.652
55-59	626	1,212	0.517
60-64	267	417	0.641
65-69	71	56	1.270
70+	5	10	0.500
Total	**1,600**	**2,662**	**0.601**

Omitted 2001 and 2007 due to odd-length valuation periods. Totals and ratios may not agree due to rounding.

Old And New LEOFF Retirement Rates

The table below shows the actual (Observed) retirement rates over the experience study period (1995-2012), and the Old and New retirement assumptions.

LEOFF Retirement Rates			
	Plan 2		
Age	Old Rates	Observed	New Rates
50	0.045	0.015	0.030
51	0.045	0.020	0.040
52	0.044	0.046	0.050
53	0.094	0.066	0.100
54	0.114	0.070	0.100
55	0.143	0.074	0.100
56	0.143	0.069	0.100
57	0.143	0.073	0.100
58	0.192	0.101	0.150
59	0.192	0.107	0.150
60	0.192	0.107	0.150
61	0.241	0.131	0.190
62	0.241	0.206	0.230
63	0.241	0.179	0.200
64	0.241	0.142	0.200
65	0.240	0.269	0.250
66	0.240	0.317	0.250
67	0.240	0.385	0.250
68	0.239	0.250	0.250
69	0.239	0.429	0.250
70	1.000	1.000	1.000

The following table shows the actual and Expected retirements for LEOFF 2 by age using the New assumptions.

LEOFF Under New Assumptions			
Age	Plan 2 (Males & Females)		
	Observed	Expected	Ratio
49-54	631	912	0.692
55-59	626	880	0.711
60-64	267	345	0.773
65-69	71	58	1.219
70+	5	10	0.500
Total	**1,600**	**2,205**	**0.726**

Totals and ratios may not agree due to rounding.

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Attachment C

LEOFF 2 Termination Rates

Observed Experience

The following table shows the Actual and Expected terminations by years of service. There were fewer terminations than the Old assumptions predicted.

LEOFF Termination Experience 1995-2010*			
Service	**Actual**	**Expected**	**Ratio**
0-4	1,752	1,846	0.95
5-9	796	879	0.91
10-14	512	544	0.94
15-19	267	277	0.96
20-24	123	148	0.83
25-29	23	40	0.57
30+	0	0	0.00
Total	**3,473**	**3,734**	**0.93**

**Omitted 2001 and 2007 due to odd-length valuation periods.*

Totals and ratios may not agree due to rounding.

Actual termination counts are 93 percent of the number of terminations expected. Based on the experience, termination rates were adjusted slightly.

New Termination Rates

The table below shows the LEOFF Actual terminations over the study period compared to the numbers expected under the Old and New assumptions. The ratio shown compares Actual terminations to the number expected under the New assumptions.

LEOFF Termination Experience 1995-2010*				
Service	**Actual**	**Old Assumption**	**New Assumption**	**Ratio**
0-4	1,752	1,846	1,804	0.97
5-9	796	879	788	1.01
10-14	512	544	501	1.02
15-19	267	277	304	0.88
20-24	123	148	131	0.94
25-29	23	40	26	0.88
30+	0	0	0	0.00
Total	**3,473**	**3,734**	**3,556**	**0.98**

**Omitted 2001 and 2007 due to odd-length valuation periods.*

Totals and ratios may not agree due to rounding.

The table below presents a sampling of actual termination rates during the study period, along with the Old and New termination rates for LEOFF.

LEOFF Termination Experience 1995-2010			
Service	**Actual**	**Old Assumption**	**New Assumption**
0	0.1077	0.1070	0.1070
1	0.0466	0.0481	0.0481
2	0.0237	0.0245	0.0245
3	0.0193	0.0216	0.0194
4	0.0159	0.0204	0.0187
5	0.0180	0.0197	0.0181
6	0.0184	0.0193	0.0174
7	0.0170	0.0192	0.0168
8	0.0153	0.0179	0.0161
9	0.0158	0.0174	0.0155
10	0.0174	0.0170	0.0148
15	0.0120	0.0107	0.0116
20	0.0093	0.0087	0.0083
25	0.0051	0.0066	0.0051
30	0.0000	0.0015	0.0018

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Attachment D

LEOFF 2 Disability Rates

High-Level Takeaways

We set assumptions for disablements to model the payment of future disability benefits. These assumptions model both (a) the incidence of disability, and (b) the selection of the disability benefit. The future incidence of disability can be impacted by medical advancements and safety practices whereas the selection of a non-catastrophic disability benefit is a personal choice that can be impacted by economic factors. For example, significant economic downturns can reduce the affordability of certain disability benefits and reduce the number of members who select non-catastrophic disability benefits.

We observed fewer disabilities than expected during this experience study. As a result, existing disability assumptions were reduced toward a better Actual to expected fit.

We saw that the data during the Great Recession reduced the ratio of Actual-to-Expected disabilities in some systems. However, we chose not to exclude the Great Recession data for the Plans 1 (PERS 1 and TRS 1) or the Public Safety systems (LEOFF, PSERS, and WSPRS). In the public safety plans, we observed that Actual disability rates appeared to return to pre-recession levels much faster. We suspect this is due to higher incomes and/or benefit adequacy.

Observed Experience

The Actual number of LEOFF 2 members selecting disability benefits during the study period was lower than the number Expected under the current disability assumption. The following table shows the Actual and Expected disabilities, by age, over the experience study period.

LEOFF 2 — Disability Experience 2005-12*			
Age	**Actual**	**Expected**	**Ratio**
20-24	0	0	0.00
25-29	1	5	0.22
30-34	2	16	0.12
35-39	11	39	0.28
40-44	16	57	0.28
45-49	22	74	0.30
50-54	56	95	0.59
55-59	41	58	0.71
60-64	16	17	0.94
65+	1	3	0.39
Total	**166**	**364**	**0.46**

**Omitted 2007 due to odd-length valuation period.*

Totals and ratios may not agree due to rounding.

Actual disabilities for LEOFF 2 are 46 percent of the number of disabilities Expected under the old assumptions. The old assumptions were not a good fit to the experience data.

LEOFF 2 New Disability Rates

New disability rates were developed for LEOFF 2. The next table shows the Actual disabilities over the study period compared to the numbers expected under the Old and New assumptions. The ratio shown compares Actual disabilities to the number expected under the New assumptions.

LEOFF 2 — Disability Experience 2005-2012				
Age	Actual	Old Assumption	New Assumption	Ratio
20-24	0	0	0	0.00
25-29	1	5	3	0.37
30-34	2	16	10	0.21
35-39	11	39	24	0.47
40-44	16	57	34	0.47
45-49	22	74	44	0.50
50-54	56	95	58	0.96
55-59	41	58	44	0.93
60-64	16	17	18	0.90
65+	1	3	2	0.62
Total	**166**	**364**	**237**	**0.70**

Totals and ratios may not agree due to rounding.

The New assumptions show an Actual to Expected fit of 70 percent. The table below shows a sample of the LEOFF 2 Actual disability rates over the study period, along with the Old and New disability assumptions.

LEOFF 2 — Disability Rates 2005-2012			
Age	Actual Rate	Old Assumption	New Assumption
20	0.000000	0.000124	0.000074
25	0.000904	0.000319	0.000191
30	0.000361	0.000779	0.000467
35	0.000000	0.001345	0.000807
40	0.000210	0.002266	0.001360
45	0.000730	0.002994	0.001796
50	0.001461	0.005635	0.003236
55	0.002573	0.007955	0.005534
60	0.008696	0.010041	0.009462
65	0.000000	0.011769	0.016180
70	0.000000	0.000000	0.000000

Percent Duty Disabilities

Because members with duty-related disabilities receive different benefits than those with non-duty related disabilities, the percentage of future disabilities Expected to be duty-related must be estimated. The table on the next page shows a sample of the Actual percentage of duty disabilities observed over the study period, along with the Old and New assumptions.

LEOFF 2 – Percent of Disabilities that are Duty Related 2005-2012			
Age	Actual	Old Assumption	New Assumption
20	0.00%	97.15%	97.25%
25	100.00%	95.71%	95.86%
30	100.00%	94.30%	94.50%
35	0.00%	92.85%	93.11%
40	100.00%	91.45%	91.75%
45	100.00%	88.60%	89.00%
50	80.00%	85.75%	86.25%
55	40.00%	82.90%	83.50%
60	80.00%	82.90%	83.50%
65	0.00%	82.90%	83.50%
70	0.00%	82.90%	83.50%

Percent Total Disabilities

It is currently assumed that 12 percent of all duty disabilities are total, or catastrophic, disabilities. There are no recommended assumption changes for total disability as a result of this experience study.

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Attachment E

LEOFF 2 Service-Based Salary Increases

Observed Experience

The following table shows the actual and expected service-based salary increases by years of service for LEOFF. The actual service based salary increases were lower than expected for most service levels.

The Actual and Expected service-based salary growth reflects the salary growth beyond assumed general salary growth (currently assumed at 3.75 percent per year).

LEOFF Service Based Salary Increases 1984-2009			
Service	**Actual**	**Expected**	**Ratio**
1	10.75%	11.00%	0.98
2	7.44%	7.70%	0.97
3	5.60%	6.10%	0.92
4	3.66%	4.00%	0.91
5	2.53%	2.80%	0.91
6-10	1.33%	1.65%	0.80
11-15	1.04%	1.30%	0.80
16-20	0.95%	1.10%	0.86
21+	0.27%	0.00%	0.00
Total	2.08%	2.27%	0.92

Old, Observed, And New Salary Increases

In general, the New service-based salary increases move toward a better fit between observed and expected, but we give some credibility to the Old salary increases as well. Additionally, we give consideration to expectations of future salary increases

The Old service-based salary increase assumption was higher than the observed service-based salary increases for the first 20 service years. However, we observed higher than expected service-based salary increases after 20 years of service. For this reason, the New service-based salary increase assumption was extended by five steps.

The following tables present a sampling of our Old, Actual, and New service-based salary increases.

The Actual salary growth reflects the total salary increase beyond observed general salary growth over the period.

LEOFF — All Plans Service Based Salary Increase Assumption			
Service	**Old**	**Actual**	**New**
1	11.00%	10.74%	10.70%
2	7.70%	7.42%	7.50%
3	6.10%	5.58%	5.90%
4	4.00%	3.64%	3.70%
5	2.80%	2.52%	2.60%
10	1.70%	1.51%	1.70%
15	1.30%	1.18%	1.20%
20	1.10%	1.22%	1.00%
25	0.00%	0.47%	0.50%
30	0.00%	0.00%	0.00%

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Attachment F

LEOFF 2 Miscellaneous Assumptions

Age Difference

Our valuation model requires the age of the member's spouse in order to calculate the survivor benefits that are payable for the spouse's life. If this spousal data is missing from our valuation data file, we use an assumption for the age difference between the member and their spouse.

We used service and disability retiree records that elected joint and survivor benefits from our 2005 through 2012 experience study data. The Old and New Age Difference Assumptions are based on the gender of the member as follows.

LEOFF		
Member	Old Assumption	New Assumption
	Age Difference	
Male	3	3
Female	(2)	(1)

Certain And Life Annuity

The standard retirement option is a monthly benefit payable for the lifetime of the member. If the member dies in retirement before the total pension payments they've received exceed the value of their accumulated contributions, the difference is paid to their beneficiary. The value of this benefit is calculated using a Certain and Life Annuity — a life annuity with a certain, or guaranteed, payment period.

We used active records from the 2012 valuation data to study expected certain periods for LEOFF 2 members. The certain, or guaranteed, period for the standard life annuity retirement option is unchanged from the current assumption of five years.

Duty-Death Benefits

If a member dies while in the course of employment, special benefits are paid to their beneficiary. These include a one-time lump sum of $214,000 in 2008, increased by inflation each year, and subsidized survivor annuities that are not reduced for early retirement or for being paid over the survivor's lifetime.

Based on data collected from the Department of Retirement Systems, we revised the duty-death rate for LEOFF 2 as fewer than expected deaths occurred while in the course of employment.

LEOFF	
Current Assumption	Updated Assumption
0.0376%	0.0350%

If an inactive LEOFF 2 member dies from a disease or infection that was contracted while employed as an active LEOFF 2 member, their survivor will receive a one-time lump sum of $214,000 in 2008, increased by inflation each year. The survivor may also receive an unreduced annuity.

Since 1996, ten duty-death lump sum payments have been paid to survivors of LEOFF retirees who passed away from a duty related illness or infection. Based on the limited observations, we did not revise any of the valuation assumptions associated with duty-death benefits for inactive members. We will continue to monitor these assumptions. As a reference, the current valuation assumptions for duty death benefits to inactive members are summarized below.

Fire fighters that pass away within a certain extended period of time after they stop working are eligible for duty-death benefits. This extended period of time from termination is three months for each year of service to a maximum of 60 months.

These additional benefits are provided to the member at no cost. Our valuation model requires an assumption about the average length of service for active members who might be eligible for these benefits in the future. There is also an assumption that estimates the percentage of LEOFF Plan 2 members who are fire fighters.

Based on historical active and annuitant valuation data, the following table shows the average years of service for active members and the resulting extended period of time for eligibility of this benefit under the current assumption.

LEOFF Plan 2 Expected Average Length of Service		
Current Assumption		
Status	Years of Service (Unrounded)	Extended Period (In Years)
Disability	16.26	4
Termination	14.20	4
Retirement	27.78	5

For LEOFF 2 fire fighters going on disability, the valuation assumes a portion of those will die due to occupational disease.

LEOFF Plan 2 Occupational Disease Death Rates for Fire Fighters	
Age	Rate
Less Than 50	0.147415
At least 50	0.273934

The updated percent fire fighter assumption is 45 percent, compared to the current assumption of 43 percent.

Member Salaries

Each year we review the salaries reported in the valuation data for reasonableness and make salary adjustments when necessary. We also set default salaries for data that is not reported or is considered unreliable.

We used active records from the 2012 valuation data to study member salaries.

Maximum Salaries were capped at $500,000 for all systems and plans in our prior experience study. Since our valuation software limits benefits using projected Internal Revenue Service maximum salaries (the maximum salary for 2013 was $255,000), we have removed this salary cap from our data processing checks.

Minimum Salaries are determined by plan and reflect full time employment. For LEOFF 2, the minimum salary for 2013 is $47,000. This is determined as the salary level that 99 percent of all plan salaries will exceed.

Low-Service Salary assumption is used to adjust salaries for members that have less than two months of service in the current valuation year. This adjustment is necessary because our valuation model assumes all active members become full-time in the future and salary data for low-service members is not reliable.

We use the average salary for actives with one year of service and adjust the salary with one year of the general salary increase assumption to bring it forward to the current valuation year. Then, to reflect that not all members with low service are new members, we adjust this entry salary by our step salary increase scale. There is not a set salary amount for this assumption, but rather a process that takes place to assign a default salary for any given set of circumstances.

Terminated Vested Salary is used to estimate the average final salary for terminated and vested members when the actual salary data is missing. We estimate this amount by average pay, by system, in various service groups. The salary is adjusted by the general salary increase assumption to reflect the number of years between the date of termination and the date the average salary is determined. The following table shows the 2013 base salaries for LEOFF by service group.

Terminated Vested Base Salaries as of 2013	
Years of Service	LEOFF
Less Than 5	$75,000
At least 5, Less Than 10	87,000
At least 10, Less Than 15	94,000
At least 15, Less Than 20	99,000
At least 20, Less Than 25	105,000
At Least 25	$113,000

Percent Male/Female

Our valuation data requires a gender code for each plan member in order to calculate and project benefits accurately. Some assumptions used in the actuarial valuation are gender-based, such as mortality and disability, and occasionally the data we receive is missing gender information. As a result, we make assumptions as to the percent male/female in order to assign a missing gender code.

We used active records from the 1983 through 2012 valuation data to study percent male/female. The assumptions for LEOFF are 90 percent male and 10 percent female.

Percent of Final Average Salary for Catastrophic Disability Benefit

LEOFF 2 pays 70 percent of final average salary if a member is totally disabled; however the member may be eligible to receive benefits from other sources besides the plan, like Social Security and the Department of Labor and Industries (L&I). The maximum amount of benefits received from all sources cannot exceed 100 percent of a member's final average salary. We estimate the expected amount of offsets from Social Security and L&I to determine the expected percent of final average salary that will be paid from the plan when a catastrophic disability occurs. Twelve percent of all disabilities in LEOFF are assumed to be catastrophic.

Percent of Final Average Salary Paid By Plan After Catastrophic Disability	
Prior Assumption	Updated Assumption
34%	44%

This assumption relies on the following variables that were estimated based on data provided by LEOFF 2, current valuation data, and additional research.

- Percent of members that are fire fighters versus law enforcement.
- Percent eligible for Social Security.
- Percent eligible for L&I.
- Washington State Average Wage.

The increase is largely due to reviewing the plan benefits of the current 29 members that are in receipt of catastrophic disability benefits. Seven of the 29 are not receiving any compensation from L&I, therefore their plan benefit was higher than previously assumed.

Percent Vested

Members who leave eligible positions, but are not annuitants in the system, are generally considered inactive, or terminated. Some of these members may be vested in their plan and entitled to a future annual benefit. Still other members are not vested, but may return to active employment at some time in the future. Any member who terminates has the right to withdraw their contributions, with interest. Members of LEOFF 2 who make such withdrawals lose their membership service and forfeit their rights to future benefits.

The Percent Vested assumption models the likelihood that terminated vested members will leave their savings intact and be entitled to deferred retirement benefits.

We used experience study records from 1995-2010 to count terminations, and among those, members who withdraw their savings. The following table shows a sample of the actual percent vested rates, the Old assumptions, and the New assumptions by service.

LEOFF 2 Percent Vested			
Male & Female			
Service Years	Actual Rates	Old Assumption	New Assumption
0	0.6500	0.0000	0.0000
5	0.3756	0.2400	0.3250
10	0.3765	0.2400	0.3750
15	0.4024	0.2700	0.4000
20	0.6957	0.6900	0.6000
25	0.7778	0.9100	0.9000
30+	0.0000	0.9100	0.9500

Ratio Of Survivors Of Active Deaths Selecting Annuities

This assumption models the ratio of active deaths whose survivors select annuities.

We used experience study records from 1995-2012 to count members who die and leave a beneficiary who collects a survivor annuity benefit. To determine the ratio, we set a trend line to the observed rates of survivors selecting annuities. The following table shows a sample of the actual ratio of survivors selecting annuities, the Old assumptions, and the New assumptions, by age and by gender.

LEOFF 2 Ratio of Survivors of Active Deaths Selecting Annuities			
Male & Female			
Age	Actual Rates	Old Assumptions	New Assumptions
35	0.5000	0.0728	0.2837
40	0.4000	0.1714	0.4310
45	0.5000	0.2701	0.5220
50	0.7143	0.3030	0.5881
55	1.0000	0.4017	0.6400
60	0.7500	0.5332	0.6827
65	0.0000	0.5662	0.7521
70	0.0000	0.5662	0.7521
75	0.0000	0.5662	0.7521
80	0.0000	0.5662	0.7521

Terminated Vested Indexed Benefit

Any LEOFF 2 member that terminates from employment with 20 or more years of service will receive a pre-retirement COLA of 3 percent per year. The COLA is paid on their accrued benefit amount until the date they retire. Our valuation model requires an assumption for the number of years that the member will receive pre-retirement COLAs.

Members with 20 or more years of service have subsidized early retirement reduction factors starting at age 50. As a result, LEOFF 2 members are assumed to retire at age 50.

We chose not to make any adjustments to this assumption as a result of this experience study.

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Contribution Rate Setting Process

Report Type:
Comprehensive Report

Date Presented:
6/18/2014

Presenter Name and Title:
Ryan Frost, Research Analyst

Summary:

The Board is required by law to adopt member, employer, and state LEOFF Plan 2 contribution rates for the 2015-17 biennium no later than July 31, 2014. The Board has previously adopted rates through June 30, 2017 but may consider changes.

Board must determine whether or not the existing fixed contribution rates should remain in effect or be adjusted to reflect the *2013 Actuarial Valuation Report*.

The current adopted contribution rates are 8.41% member, 5.05% employer and 3.36% state and are effective through June 30, 2017.

Strategic Linkage:
This item supports the following Strategic Priority Goals:
Maintain the financial integrity of the plan.

ATTACHMENTS:

Description	Type
Contribution Rate Setting Report	Report
Contribution Rate Setting Presentation	Presentation

June 18th, 2014

CONTRIBUTION RATE SETTING

COMPREHENSIVE REPORT
By Ryan Frost
Research Analyst
360-586-2325
ryan.frost@leoff.wa.gov

ISSUE STATEMENT

The short-term policy issue to be addressed by the Board is to determine whether or not the existing fixed contribution rates should remain in effect or should they be adjusted to reflect the Preliminary Results of the *2013 Actuarial Valuation Report*.

OVERVIEW

The Board is required by law to adopt member, employer, and state LEOFF Plan 2 contribution rates for the 2015-17 biennium no later than July 31, 2014. The Board has previously adopted rates through June 30, 2017 but may consider changes.

The current adopted contribution rates are 8.41% member, 5.05% employer and 3.36% state and are effective through June 30, 2017. The contribution rate is calculated at one hundred percent of the entry age normal cost (EANC) of the plan based on the Actuary's *2011 Actuarial Valuation Report*.

BACKGROUND & POLICY ISSUES

The Board has a statutory duty to set contribution rates for LEOFF Plan 2 in even-numbered years. 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. 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.

In 2004 the Board, as part of its strategic plan, identified financial integrity and contribution rate stability as two of its top four goals. The first step in achieving financial integrity was to increase contribution rates to meet the levels needed to fund current benefits. The Board realized the contribution rates which had been artificially low could not be raised to the full extent needed without creating financial hardships for the members, employers and state. Instead the Board adopted a four-year plan of annual increases to raise rates through June 30, 2009 (see appendix A).

In order to achieve the second goal, the Board adopted two policies to help stabilize long-term contribution rates. One was the adoption of a minimum contribution rate of 90% of the EANC of the plan. The second was to establish a funding corridor. Under the funding corridor policy a 30%

maximum and minimum ratio of actuarial to market asset value was established. This helps ensure rates do not remain artificially too high or low. In addition to these policies the Legislature passed a statutory funding policy in 2003 that allows gains and losses to be “smoothed” over a period of up to eight years, depending on the magnitude of the deviation between actual investment return and the current return assumption.

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 allows the Board to maintain rate stability and 100% funded status through June 2017. The Board’s policy will allow 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 will have significant pressure to increase rates in the next biennia as they recognize the same loses from 2008 and 2009.

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 Entry Age Normal Cost (EANC) from the *2011 Actuarial Valuation Report,* rather than continuing to use the rates from the *2007 Actuarial Valuation Report.*

POLICY OPTIONS

Option 1: Maintain Existing Fixed Contribution Rate through June 30, 2017

Under this option the Board is not required to do anything. The contribution rates will continue at 100% of the EANC based on the *2011 Actuarial Valuation Report*.

Option 2a: Adjust Contribution Rates to New EANC <u>without</u> Updated Assumptions

Under this option the Board would adopt a contribution rate of 100% of the EANC, with no updated assumptions, based on the Preliminary Results of the *2013 Actuarial Valuation Report.*

Option 2b: Adjust Contribution Rates to New EANC <u>with</u> Updated Assumptions

Under this option the Board would adopt a contribution rate of 100% of the EANC including the updated assumptions, based on the Preliminary Results of the *2013 Actuarial Valuation Report.*

Option 3: Switch to Aggregate Rate with a 90% Floor <u>with</u> Updated Assumptions

Under this option the contribution rate would be based on the aggregate actuarial cost of the plan as of the *2013 Actuarial Valuation Report* with updated assumptions; and with adjustments, as needed, for the rate floor and the 30% maximum/minimum asset corridor.

SUPPORTING INFORMATION

Appendix A: 2005 – 2009 Weighted Annual Contribution Rate Increase Schedule
Appendix B: Historical Contribution Rates
Appendix C: Rate-Setting Statutes
Appendix D: Funding Methods Defined

APPENDIX A

2005-2009 WEIGHTED ANNUAL CONTRIBUTION RATE INCREASE SCHEDULE

YEAR	MEMBER	EMPLOYER	STATE
July 1, 2005	6.75%	4.05%	2.70%
July 1, 2006	7.55%	4.53%	3.02%
July 1, 2007	8.30%	4.98%	3.32%
July 1, 2008	8.49%	5.09%	3.39%

APPENDIX B
HISTORICAL CONTRIBUTION RATES

EFFECTIVE DATE	MEMBER	EMPLOYER	STATE
10/1/77	8.14%	4.88%	3.26%
7/1/79	8.08%	4.85%	3.23%
7/1/81	7.74%	4.65%	3.09%
7/1/83	7.90%	4.74%	3.16%
7/1/85	7.00%	4.70%	3.13%
7/1/87	8.09%	4.85%	3.24%
7/1/89	7.60%	4.56%	3.04%
1/1/92	7.01%	4.21%	2.80%
9/1/93	8.41%	5.05%	3.36%
9/1/96	8.43%	5.06%	3.37%
9/1/97	8.48%	5.09%	3.39%
7/1/99	5.87%	3.52%	2.35%
5/1/00	5.41%	3.25%	2.16%
9/1/00	6.78%	4.07%	2.71%
7/1/01	4.50%	2.70%	1.80%
4/1/02	4.39%	2.64%	1.75%
7/1/03	5.05%	3.03%	2.02%
2/1/04	5.07%	3.04%	2.03%
9/1/04	5.09%	3.06%	2.03%
7/1/05	6.75%	4.05%	2.70%
9/1/05	6.99%	4.20%	2.79%
7/1/06	7.79%	4.68%	3.11%
9/1/06	7.85%	4.72%	3.13%
7/1/07	8.60%	5.17%	3.43%
9/1/07	8.64%	5.19%	3.45%
7/1/08	8.83%	5.30%	3.53%
7/1/09	8.45%	5.07%	3.38%
9/1/09	8.46%	5.08%	3.38%
7/1/13	8.41%	5.21%	3.20%
9/1/13	8.41%	5.05%	3.36%

APPENDIX C
RATE-SETTING STATUTES

RCW 41.26.725
Board of trustees — Contributions — Minimum and increased benefits

(1) The board of trustees shall establish contributions as set forth in this section. The cost of the minimum benefits as defined in this plan shall be funded on the following ratio:

Employee contributions	50%
Employer contributions	30%
State contributions	20%

(2) The minimum benefits shall constitute a contractual obligation of the state and the contributing employers and may not be reduced below the levels in effect on July 1, 2003. The state and the contributing employers shall maintain the minimum benefits on a sound actuarial basis in accordance with the actuarial standards adopted by the board.

(3) Increased benefits created as provided for in RCW 41.26.720 are granted on a basis not to exceed the contributions provided for in this section. In addition to the contributions necessary to maintain the minimum benefits, for any increased benefits provided for by the board, the employee contribution shall not exceed fifty percent of the actuarial cost of the benefit. In no instance shall the employee cost exceed ten percent of covered payroll without the consent of a majority of the affected employees. Employer contributions shall not exceed thirty percent of the cost, but in no instance shall the employer contribution exceed six percent of covered payroll. State contributions shall not exceed twenty percent of the cost, but in no instance shall the state contribution exceed four percent of covered payroll. Employer contributions may not be increased above the maximum under this section without the consent of the governing body of the employer. State contributions may not be increased above the maximum provided for in this section without the consent of the legislature. In the event that the cost of maintaining the increased benefits on a sound actuarial basis exceeds the aggregate contributions provided for in this section, the board shall submit to the affected members of the plan the option of

paying the increased costs or of having the increased benefits reduced to a level sufficient to be maintained by the aggregate contributions. The reduction of benefits in accordance with this section shall not be deemed a violation of the contractual rights of the members, provided that no reduction may result in benefits being lower than the level of the minimum benefits.

(4) The board shall manage the trust in a manner that maintains reasonable contributions and administrative costs. Providing additional benefits to members and beneficiaries is the board's priority.

[2003 c 93 § 1; 2003 c 2 § 6 (Initiative Measure No. 790, approved November 5, 2002)].

RCW 41.45.0604
Contribution rates — Law enforcement officers' and firefighters' retirement system plan 2.

(1) Not later than July 31, 2008, 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. Thereafter, the director shall collect those rates adopted by the board. The rates shall be effective for the ensuing biennial period, subject to any legislative modifications.

[2007 c 280 § 3; 2003 c 92 § 4.]

APPENDIX D
FUNDING METHODS DEFINED

Aggregate Funding Method[1]

The aggregate funding method is a standard actuarial funding method. The annual cost of benefits under the aggregate method is equal to the normal cost. The method does not produce an unfunded actuarial accrued liability. The normal cost is determined for the entire group rather than on an individual basis.

Entry Age Normal Cost Method (EANC)[2]

The EANC 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 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.

Fixed Normal Cost Method: Variation of Entry Age Normal Cost Method

Under the Entry Age Normal Cost (EANC) method, there are two components: the normal cost, and the UAAL (surplus or deficit) which is amortized over time. Under the fixed normal cost (FNC) method, the amortization of the unfunded liability is eliminated. Instead, rates are tied to the normal cost and the UAAL will fluctuate up and down (within the corridor) depending on investment performance. This method provides more stable rates than the EANC

[1] "Glossary of Actuarial and Pension Terms". Office of the State Actuary. 13 Jan 2012. Web. 3 July 2012.
[2] "Glossary of Actuarial and Pension Terms". Office of the State Actuary. 13 Jan 2012. Web. 3 July 2012.

LEOFF Plan 2 Retirement Board

Contribution Rate Setting

Comprehensive Report
June 18, 2014

Discussion Points

- Statutory Duty to Set Rates
- Goal and Achievements
- Contribution Rate History
- Options

LEOFF
Plan 2 Retirement Board

Statutory Duty

- Board Authorized to Set Rates
  - RCW 41.26.725
- Set Rates in Even-numbered Years
  - RCW 41.45.0604

LEOFF Plan 2 Retirement Board

Goals and Achievements

- Fully-funded Status
  - Maintain 100% or Better Funded Status
  - Projection of Fully-funded Status through 6/30/2017
- Stable Contribution Rates
  - Predictable Increases
  - Level Rates through 6/30/2017

LEOFF Plan 2 Retirement Board

Contribution Rate History

- 2004-2012
  - Policy Decisions
  - Rate Adoptions

Options

1. Maintain Existing Contribution Rates

- 100% of EANC based on 2011 Valuation Report
  - 8.41% Member, 5.05% Employer, 3.36% State

LEOFF Plan 2 Retirement Board

Options

2. Adjust Contribution Rates to New EANC

a. 100% of EANC Before Updated Assumptions

- 8.60% Member, 5.16% Employer, 3.44% State

b. 100% of EANC After Updated Assumptions

- 8.85% Member, 5.31% Employer, 3.54% State

Options

3. Switch to an Aggregate Funding Method with a 90% Floor
   - Aggregate <u>After</u> Updated Assumptions
     - 7.97% Member, 4.78% Employer, 3.19% State

Comparison

- *Option 1*: 8.41% Member, 5.05% Employer, 3.36% State
  - Maintain Existing Rates
- *Option 2a*: 8.60% Member, 5.16% Employer, 3.44% State
  - 100% of EANC <u>Before</u> Updated Assumptions
- *Option 2b*: 8.85% Member, 5.31% Employer, 3.54% State
  - 100% of EANC <u>After</u> Updated Assumptions
- *Option 3*: 7.97% Member, 4.78% Employer, 3.19% State
  - Aggregate <u>After</u> Updated Assumptions

Any Questions?

- **Contact:**

Ryan Frost

Research Analyst

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SCPP Update

ATTACHMENTS:

Description	Type
SCPP Agenda	Report

P.O. Box 40914
Olympia, WA 98504-0914
actuary.state@leg.wa.gov

Select Committee on Pension Policy

Regular Committee Meeting

June 17, 2014
10:00 a.m. – 12:00 p.m.*
Senate Hearing Room 4
Olympia

DRAFT AGENDA

10:00 a.m.	**1.**	**Approval of Minutes**
10:05 a.m.	**2.**	**LEOFF 2 Board Update** – Steve Nelsen, Executive Director, LEOFF 2 Board
10:25 a.m.	**3.**	**DRS CEM Benchmarking Update** – Mark Feldhausen, Budget and Benchmarking Director, DRS and Jan Hartford, Principal, CEM Benchmarking
10:55 a.m.	**4.**	**Contribution Rate Setting Overview** – Devon Nichols, Policy Analyst
11:15 a.m.	**5.**	**Preliminary Valuation Results** – Matt Smith, State Actuary and Lisa Won, Senior Actuary
12:00 p.m.	**6.**	**Adjourn**

**These times are estimates and are subject to change depending on the needs of the Committee.*

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(360) 786-6140
Fax: (360) 586-8135
TDD: 711
leg.wa.gov/SCPP.htm

Budget Update

Date Presented:
6/18/2014

Presenter Name and Title:
Steve Nelsen, Executive Director

Summary:
A review of the current status of the Agency Operating Budget.

Strategic Linkage:
This item supports the following Strategic Priority Goals:
Maintain the financial integrity of the plan.

ATTACHMENTS:

	Description	Type
	Budget Report	Report

341-LEOFF Plan 2, Monthly Fiscal Budget Report, 2015 Biennium-To-Date Through May 2014

Category	Bien Allotment	BTD Allotment	BTD Expenditures	BTD Variance	Bien Remaining
Salaries and Wages	1,170,787	548,225	492,893	55,332	677,894
Employee Benefits	320,584	150,605	142,404	8,201	178,180
Professional Service Contracts	95,605	43,960	0	43,960	95,605
Goods and Other Services	597,083	278,976	262,027	16,949	335,056
Travel	109,662	56,242	51,253	4,989	58,409
Capital Outlays	16,500	13,200	10,792	2,408	5,708
Interagency Reimbursements	(53,221)	(53,221)	(53,221)	0	0
Total Dollars	**2,257,000**	**1,037,987**	**906,148**	**131,839**	**1,350,852**

Category			Bien Allotment	BTD Allotment	BTD Expenditures	BTD Variance	Bien Remaining
Salaries and Wages			**1,170,787**	**548,225**	**492,893**	**55,332**	**677,894**
A	AA	State Classified	803,287	375,859	323,812	52,047	479,475
	AC	State Exempt	367,500	172,366	166,788	5,578	200,712
	AS	Sick Leave Buy-Out	0	0	2,293	(2,293)	(2,293)
Employee Benefits			**320,584**	**150,605**	**142,404**	**8,201**	**178,180**
	BA	Old Age and Survivors Insurance	73,305	33,405	30,011	3,394	43,294
	BB	Retirement and Pensions	99,785	46,198	44,837	1,361	54,948
	BC	Medical Aid & Industrial Insurance	9,370	3,996	2,934	1,062	6,436
	BD	Health, Life & Disability Insurance	119,470	58,686	57,122	1,564	62,348
	BE	Allowances	1,600	600	431	169	1,169
	BH	Hospital Insurance (Medicare)	17,054	7,720	7,044	676	10,010
	BZ	Other Employee Benefits	25	25	25	0	0
Professional Service Contracts			**95,605**	**43,960**	**0**	**43,960**	**95,605**
C	CA	Management and Organizational Services	29,984	18,126	0	18,126	29,984
	CC	Financial Services	17,764	8,586	0	8,586	17,764
	CJ	Training Services	36,436	11,448	0	11,448	36,436
	CZ	Other Professional Services	11,421	5,800	0	5,800	11,421
Goods and Other Services			**597,083**	**278,976**	**262,027**	**16,949**	**335,056**
E	EA	Supplies and Materials	8,400	3,850	1,812	2,038	6,588
	EB	Communications/Telecommunications	27,000	12,375	10,871	1,504	16,129
	EC	Utilities	12,000	5,500	4,620	880	7,380
	ED	Rentals and Leases - Land & Buildings	93,840	43,010	42,125	886	51,716
	EE	Repairs, Alterations & Maintenance	1,992	913	157	756	1,835
	EF	Printing and Reproduction	50,160	23,790	17,397	6,393	32,763
	EG	Employee Prof Dev & Training	36,000	16,500	27,340	(10,840)	8,660
	EH	Rental & Leases - Furn & Equipment	9,960	4,565	4,243	322	5,717
	EJ	Subscriptions	2,236	1,372	2,054	(682)	182
	EK	Facilities and Services	15,000	6,875	5,399	1,476	9,601
	EL	Data Processing Services (Interagency)	12,900	3,650	3,795	(145)	9,105
	EM	Attorney General Services	45,000	20,625	12,171	8,454	32,829
	EN	Personnel Services	3,008	2,462	7,339	(4,877)	(4,331)
	EP	Insurance	2,100	1,100	25	1,075	2,075
	ER	Other Contractual Services	263,073	121,940	115,736	6,204	147,337

ET	Audit Services	7,019	7,019	7,019	(0)	(0)
EW	Archives & Records Management Svcs	120	55	60	(5)	60
EY	Software Licenses and Maintenance	6,000	2,750	95	2,656	5,906
EZ	Other Goods and Services	1,275	625	(231)	856	1,506
Travel		**109,662**	**56,242**	**51,253**	**4,989**	**58,409**
GA	In-State Subsistence & Lodging	27,222	16,052	14,359	1,693	12,863
GB	In-State Air Transportation	3,671	2,371	2,537	(166)	1,134
GC	Private Automobile Mileage	21,476	10,361	9,872	489	11,604
GD	Other Travel Expenses	9,424	5,524	4,501	1,023	4,923
GF	Out-Of-State Subsistence & Lodging	33,042	15,327	13,066	2,261	19,976
GG	Out-Of-State Air Transportation	14,827	6,607	6,918	(311)	7,909
Capital Outlays		**16,500**	**13,200**	**10,792**	**2,408**	**5,708**
JA	Noncapitalized Assets	15,540	12,240	10,265	1,975	5,275
JB	Noncapitalized Software	960	960	527	433	433
Interagency Reimbursements		**(53,221)**	**(53,221)**	**(53,221)**	**0**	**0**
SA	Salaries and Wages	(47,621)	(47,621)	(47,621)	0	0
SB	Employee Benefits	(5,600)	(5,600)	(5,600)	0	0
Total Dollars		**2,257,000**	**1,037,987**	**906,148**	**131,839**	**1,350,852**

Alternate Revenue - Educational Briefing

Report Type:
Educational Briefing

Date Presented:
6/18/2014

Presenter Name and Title:
Ryan Frost, Research Analyst

Summary:
This presentation provides a review of Alternate Revenue and recent Legislative actions.

Strategic Linkage:
This item supports the following Strategic Priority Goals:
Enhance the benefits for the members., Maintain the financial integrity of the plan.

ATTACHMENTS:

	Description	Type
	Alternate Revenue Report	Report
	Alternate Revenue Presentation	Presentation

June 18th, 2014

ALTERNATE REVENUE

EDUCATIONAL BRIEFING
By Ryan Frost
Research Analyst
360-586-2325
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ISSUE STATEMENT

Board members and Legislators may not have a full understanding of Alternate Revenue. Several current Board members were not on the Board at the time Alternate Revenue was studied and passed. Many current Legislators were also not in office when the legislature passed Alternate Revenue.

OVERVIEW

LEOFF Plan 2 historically had two sources of revenue to fund plan benefits; contributions and investment earnings. Any benefit improvement must be paid for by an increase in contributions by plan members, employers, and the State.

During a three year period[1], the Board researched other public safety retirement plans around the country that had developed alternate revenue sources as a means of funding improved plan benefits without raising contribution rates.

The 2008 Legislature passed a bill providing additional revenue to LEOFF Plan 2 for benefit improvements and to local government for defined public safety purposes.

BACKGROUND

Alternate Revenue Legislation

The 2008 Legislature passed Engrossed Substitute Senate Bill 6573 providing local government public safety employers and the law enforcement officers' and firefighters' plan 2 pension plan with additional shared revenues.

> ***Legislative Intent***
>
> The intent of the legislation recognized the need for additional revenue to provide for public safety and protection. The legislature also recognized the physical and challenging demands of fire fighters and law enforcement officers, effect on the length of working careers, and impact on earning adequate pension benefits. Section 1 of the legislation reads, in part:
>
> > *"The legislature finds that local governments need additional revenues to provide public safety resources in order to protect the citizens of Washington*

[1] 2006, 2007, 2008

from fire and crime. The legislature finds that the current benefit formula and contributions for the law enforcement officers' and firefighters' plan 2 are inadequate to modify that formula in recognition of the shorter working careers for firefighters and police officers. The legislature recognizes that although some officers and firefighters are able to work comfortably beyond twenty-five years, the combat nature of fire suppression and law enforcement generally require earlier retirement ages. In recognition of the physical demands of the professions and the inherent risks faced by law enforcement officers and firefighters, eligibility for retirement in the law enforcement officers' and firefighters' plan 2 system has been set at age fifty-three. However, the benefit formula is designed for careers of thirty-five to forty years, making retirement at age fifty-three an unrealistic option for many."

Vote Count

The Alternate Revenue bill was strongly supported by the 2008 Legislature. The bill was amended in the Senate Ways and Means Committee and passed by the full Senate by a vote of 48-1. The legislation was further amended on the House floor and then passed by a vote of 82-12, with 4 excused. Then Senate concurred in the House amendments and passed the legislation on final passage by a vote of 45-2, with 2 excused.

Alternate Revenue Trigger and Payment Schedule

Beginning in 2011, and by September 30 of odd-numbered years in each subsequent fiscal biennium in which general state revenue collections increase by more than 5 percent from the prior fiscal biennium, the State Treasurer is required to transfer, subject to appropriation, prescribed funds to the Local Public Safety Enhancement Account (LPSEA). The amounts that would be transferred to the LPSEA if the Alternate Revenue trigger is met are shown in the following schedule:

- $5 million for 2011
- $10 million in 2013
- $20 million in 2015
- $50 million in 2017

In subsequent fiscal biennia's after 2017, the amount eligible for transfer is the lesser of one-third of the general revenue increase amount or $50 million. General state revenues mean total revenues to the General Fund-State less state revenues from property taxes.

Benefits Improvement Account

After a transfer to the LPSEA, one-half of the funds transferred into the LPSEA would then be transferred to the Law Enforcement Officers' and Fire Fighters' Retirement System Benefits Improvement Account (Benefits Improvement Account) created within the LEOFF Plan 2 Retirement Fund. The remaining funds in the LPSEA are distributed to local governments for public safety purposes.

Money transferred to the Benefits Improvement Account can only be used to fund benefits adopted by the Legislature. Benefits may be funded from the Benefits Improvement Account if the State Actuary determines that the actuarial present value of the proposed and existing benefit obligations is met or exceeded by the actuarial present value of the projected revenues to the account. The Washington State Investment Board (WSIB) is authorized to adopt investment policies and invest the money in the Benefits Improvement Account.

The Board has the sole authority to authorize disbursements from the Benefits Improvement Account, and to establish all other policies relating to the Benefits Improvement Account, which must be administered in an actuarially sound manner. Funds in the Benefits Improvement Account may not be considered assets of the plan and are not included in contribution rate calculations by the State Actuary until directed by the Board for purposes of financing benefits adopted by the Board. The LEOFF Plan 2 Board is required to include sufficient funds from the account in the LEOFF Plan 2 Fund to meet benefit obligations within 90 days of the fund's transfer into the account.

Local Public Safety Enhancement Account (LPSEA)

The State Treasurer is responsible for the distribution of the funds in the LPSEA to local governments. Each jurisdiction's allocation is proportionate to the share of LEOFF Plan 2 membership that it employs, as determined by the Department of Retirement Systems. In the event that two jurisdictions have a contract for the provision of law enforcement or fire protection services, the two parties must agree on a revenue sharing arrangement before funds will be distributed. The LPSEA funds may only be used for the purposes of enhancement of criminal justice services, information and assistance programs for families of at risk or runaway youth, or other public safety purposes, and may not replace existing expenditures by local jurisdictions for those purposes.

Disbursement History

The 5% required revenue growth necessary to trigger the 2011 alternate revenue payment of $5 million was not met. The 5% revenue growth trigger was met for the 2013 alternate revenue payment. However, the $10 million transfer was not appropriated by the legislature in the budget so there was no transfer to the LPSEA nor the Benefit Improvement Account. The table below shows the alternate revenue trigger calculations for 2011 and 2013.

Fiscal Year	Annual General State Revenues[2]	Biennial General State Revenues	Difference from Previous Biennium	% Change from previous biennium	Statutory Transfer Date	Transfer Amount
2010	11,795,190,922					
2011	12,828,012,979	24,623,203,901	(110,068,281)	(0.45%)	9/30/2011	none
2012	12,995,711,687					
2013	13,742,785,039	26,738,496,726	2,115,292,825	8.59%	9/30/2013 (FY 14)	$10 million[3]

[2] The definition in RCW 41.26.802 is general state revenues; Amounts determined by the capital budget, not the operating budget.
[3] The 2011 scheduled payment was not appropriated in the Legislature's budget and not transferred to the LPSEA.

LEOFF Plan 2 Retirement Board

Alternate Revenue

Educational Briefing

June 18th, 2014

Presentation Overview

- Background
- Alternate Revenue Legislation
  - Intent
- Components
  - Trigger and Payment Schedule
  - Local Public Safety Enhancement Account
  - Benefit Improvement Account
- Disbursement History

Background

- Two sources to fund benefits
- Board studied for 3 years (2006-2008)
- Legislation Proposed in 2008

Legislation

- Intent
  - Provide revenue for public safety and protection
  - Recognize risk and physical/challenging demands
  - Negative impacts on career and accrual on adequate pension benefits
- Purpose
  - Provide local government public safety employers and the LEOFF Plan 2 with additional shared revenues when general state revenues exceed by more than five percent the previous fiscal biennium's revenue.

Components

- Trigger
  - 5% Biennial growth in general state revenue
- Payment Schedule
  - 2011 - $5 Million
  - 2013 - $10 Million
  - 2015 - $20 Million
  - 2017 - $50 Million
  - Subsequent Biennia – lesser of 1/3 of biennial revenue increase or $50 Million

LEOFF Plan 2 Retirement Board

How it works

1. Revenue growth trigger met
2. Payment appropriated by Legislature

$10 million transferred to LPSEA

Local Public Safety Enhancement Account (LPSEA)

$5 million distributed to local government

$5 Million (50%) transferred from LPSEA to BIA

Benefit Improvement Account

LEOFF Plan 2 Retirement Board

Disbursement History

- 2011 – Trigger not met
- 2013 – Trigger met, funds not appropriated

Fiscal Year	Annual General State Revenues	Biennial General State Revenues	Difference from Previous Biennium	% Change from previous	Statutory Transfer Date	Transfer Amount
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2013	13,742,785,039	26,738,496,726	2,115,292,825	8.59%	9/30/2013 (FY 14)	$10 million*

LEOFF Plan 2 Retirement Board

Questions?

Contact:

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Agenda Items for Future Meetings

Date Presented:
6/18/2014

Presenter Name and Title:
Steve Nelsen, Executive Director

Summary:
Board members will review the schedule and agenda items for upcoming meetings.

ATTACHMENTS:

	Description	Type
🗋	Agenda Items Calendar	Report

LEOFF Plan 2 Retirement Board

2014
AGENDA ITEMS CALENDAR

MEETING DATE	AGENDA ITEMS
January 22, 2014	2014 Legislative Update
February 26, 2014	2014 Legislative Update
March 26, 2014	2014 Legislative Update 2014 Interim Planning
April 16, 2014	Meeting Cancelled
May 28, 2014	Local Government DCP Participation, Initial Consideration Final Average Salary Protection, Initial Consideration Alternate Revenue Update SCPP Coordination Demographic Experience Study Education – OSA Annual Attorney General Training – Dawn Cortez, AAG Parliamentary Procedure Review – Dawn Cortez, AAG
June 18, 2014	Contribution Rate Setting Process Demographic Experience Study and Valuation Results – OSA DRS Benchmarking – Mark Feldhausen, Budget and Benchmarking Director Actuarial Audit Presentation – Mark Olleman, Milliman Alternate Revenue, Educational Briefing
July 23, 2014	Contribution Rate Adoption Assumption Adoption Actuarial Audit Presentation – Mark Olleman, Milliman
August 27, 2014	Washington State Investment Board Annual Update Comparing Deferred Benefit and Defined Benefit Contribution Plans Local Government DCP Participation, Work Session Final Average Salary Protection, Comprehensive Report
September 24, 2014	Demographic Experience Study, Final Report – OSA LEOFF 2 Actuarial Valuation – OSA FY14 Independent Audit Results, Steve Davis DRS Annual Administrative Update
October 22, 2014	2015 Proposed Meeting Calendar
November 19, 2014	2015 Meeting Calendar Adoption
December 17, 2014	