

BOARD MEETING AGENDA

July 27, 2016 - 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 | 9:35 AM |
| 2. Valuation Audit Results | 9:40 AM |
| Nick Collier, Milliman | |
| 3. Contribution Rate Adoption | 10:10 AM |
| Ryan Frost, Research and Policy Manager | |
| 4. DRS Annual Update | 11:00 AM |
| Marcie Frost, Director, Department of Retirement Systems | |
| Jacob White, Legal and Legislative Services Manager, Department of Retirement Systems | |
| 5. Administrative Update | |
| • Outreach Activities | |
| • SCPP Update | 12:00 PM |
| 6. Agenda Items for Future Meetings | 12:30 PM |
| 7. LEOFF 1/ LEOFF 2 Merger Study | 1:00 PM |
| Steve Nelsen, Executive Director | |
| 8. Public Testimony | 2:00 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.



Valuation Audit Results

Date Presented:

7/27/2016

Presenter Name and Title:

Nick Collier, Milliman

Strategic Linkage:

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

ATTACHMENTS:

Description	Type
▣ Actuarial Audit Report	Report
▣ LEOFF 2 Board Actuarial Audit	Presentation

Note: At your request, we have provided this DRAFT Report prior to completion of our work. Because this is a draft Report, Milliman does not make any representation or warranty regarding the contents of the Report. Milliman advises any reader not to take any action in reliance on anything contained in the draft Report. All parts of this Report are subject to revision or correction prior to the release of the final Report, and such changes or corrections may be material. No distribution of this draft Report may be made without our express prior written consent.

State of Washington Pension Funding Council LEOFF 2 Board

Actuarial Audit of June 30, 2015 Actuarial Valuation

Prepared by:

Mark C. Olleman, FSA, EA, MAAA
Consulting Actuary

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Daniel R. Wade, FSA, EA, MAAA
Consulting Actuary

Milliman, Inc.
1301 Fifth Avenue, Suite 3800
Seattle, WA 98101-2605
Tel +1 1 206 624 7940
milliman.com



1301 Fifth Avenue
Suite 3800
Seattle, WA 98101-2605
USA

Tel +1 206 624 7940
Fax +1 206 623 3485

milliman.com

Note: At your request, we have provided this DRAFT Report prior to completion of our work. Because this is a draft Report, Milliman does not make any representation or warranty regarding the contents of the Report. Milliman advises any reader not to take any action in reliance on anything contained in the draft Report. All parts of this Report are subject to revision or correction prior to the release of the final Report, and such changes or corrections may be material. No distribution of this draft Report may be made without our express prior written consent.

July 19, 2016

Mr. Jacob White
Legal and Legislative Services Manager
Department of Retirement Services

Mr. Steve Nelsen
Executive Director
LEOFF Plan 2 Retirement Board

Re: Actuarial Audit Report

Dear Jacob and Steve,

The enclosed report presents the findings and comments resulting from a detailed review of the June 30, 2015 actuarial valuation performed by the Office of the State Actuary (OSA) for the Pension Funding Council (PFC) and the LEOFF 2 Board. An overview of our major findings is included in the Executive Summary section of the report. More detailed commentary on our review process is included in the latter sections.

All calculations for the actuarial valuation are based on Revised Code of Washington (RCW) and the actuarial assumptions proposed by the OSA based on its 2007 – 2012 experience study for use in the June 30, 2015 actuarial valuation. Note that for the 2015-2017 biennium, the actual contribution rates were calculated based on a phasing-in of the mortality improvement assumption for all plans but LEOFF 2. In this report, we have calculated contribution rates based on two sets of mortality assumptions, both the full mortality improvement assumption recommended in the experience study, and a version with the 2nd step of a phase-in of that assumption. For LEOFF 2, only the full assumptions were considered.

As discussed in our report, we believe the package of actuarial assumptions and methods is reasonable (taking into account the experience of Washington State Public Retirement Systems and reasonable expectations). Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following:

- Plan experience differing from the actuarial assumptions,
- Future changes in the actuarial assumptions,
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as potential additional contribution requirements due to changes in the plan's funded status), and
- Changes in the plan provisions or accounting standards.

Due to the scope of this assignment, we did not perform an analysis of the potential range of such measurements.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the OSA's staff. This information includes information supplied to the OSA by the Department of Retirement Systems (DRS) and the Washington State Investment Board (WSIB). This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data, we have found

This work product was prepared solely for the PFC and the LEOFF 2 Retirement Board for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

them to be reasonably consistent and comparable with data used for other purposes. Since the audit results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

Milliman's work product was prepared exclusively for the Pension Funding Council and the LEOFF 2 Board for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the operations of the Washington State Public Retirement Systems, and uses DRS's census data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

We would like to express our appreciation to the OSA's staff for their assistance in supplying the data and information on which this report is based.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

Mark C. Olleman, FSA, EA, MAAA
Consulting Actuary

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Daniel R. Wade, FSA, EA, MAAA
Consulting Actuary
MCO/NJC/DRW/nlo

This work product was prepared solely for the PFC and the LEOFF 2 Retirement Board for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Table of Contents

	Page
Certification Letter	
Section 1 Summary of the Findings	1
Section 2 Membership Data.....	9
Exhibit 2-1 Member Statistics as of June 30, 2015	10
Section 3 Actuarial Value of Assets	19
Exhibit 3-1 Comparison of Actuarial Value of Assets by Plan	20
Section 4 Actuarial Liabilities.....	23
Exhibit 4-1 Present Value of Future Benefits by Benefit Type	24
Exhibit 4-2 Present Value of Future Benefits by System.....	25
Exhibit 4-3 Comparison of Entry Age Normal Accrued Liability	27
Exhibit 4-4 Present Value of Future Salaries and EANC Rate.....	27
Section 5 Funding.....	28
Section 6 Review of Preliminary Report and Recommendations from Prior Audit.....	37

Section 1 Summary of the Findings



Purpose and Scope of the Actuarial Audit

This actuarial audit reviews the June 30, 2015 actuarial valuation performed by the Office of the State Actuary (OSA). The purpose of this audit is to verify that the results of the valuation are accurate and that the assumptions the valuation is based upon are reasonable. The following tasks were performed in this audit:

- Evaluation of the data used in the valuation
- Full independent replication of the key valuation results
- Evaluation of the reasonableness of the assumptions used in the valuation
- Analysis of valuation results and reconciliation of material differences (if any)
- Analysis of the written work product

Audit Conclusion

Overall

The results of this audit are very positive. Specifically, we want to highlight the following:

- **Reasonable Assumptions:** We believe that all of the recommended assumptions used to value liabilities are reasonable. The recommended use of Scale BB for projecting future mortality improvements puts the state ahead of most other states when it comes to anticipating the impact of future mortality improvement. However, note that for the 2015-2017 biennium, the actual contribution rates were calculated based on a phasing-in of the mortality improvement assumption for all plans but LEOFF 2, so the full Scale BB projection scale was not the assumption used.
- **Contributions toward Funding:** Washington State has funding that is superior to that of most statewide systems. The use of the aggregate actuarial cost method, along with relatively short amortization periods for the Plans 1 limit the contributions deferred to future generations in comparison to what is done in most other states.
- **Accurate Calculations:** Our independent calculations matched OSA's closely in all material aspects of the valuation.

Actuarial Valuation

Based upon our review of the June 30, 2015 actuarial valuation, we found the actuarial work performed by OSA was reasonable, appropriate, and accurate. We matched the assets, liabilities and contribution rates calculated by OSA closely.

Statement of Key Findings

Membership Data

We performed tests on both the raw data supplied by the Department of Retirement Systems (DRS) and the processed data used by the OSA in the June 30, 2015 actuarial valuation. We feel that there is an excellent match between the data supplied by DRS and the data used by OSA. Based on this review, we feel the individual member data used is complete. A summary is shown in the chart below:

All Plans in Aggregate			
	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	301,260	301,260	100.0%
Total Salaries (millions)	\$ 17,823	\$ 17,825	100.0%
Average Age	47.3	47.3	100.0%
Average Service	12.0	12.0	100.0%
Average Projected Compensation	\$ 59,160	\$ 59,168	100.0%
Retirees and Survivors			
Total Number	163,788	163,788	100.0%
Average Monthly Pension	\$ 1,849	\$ 1,848	100.1%
Terminated Members			
Total Number Vested	57,981	57,981	100.0%
Total Number Non-Vested	125,114	125,114	100.0%

Actuarial Value of Assets

We have reviewed the calculations for the actuarial value of assets used for each plan in the June 30, 2015 valuation. We found the calculations to be reasonable and the methodology to be appropriate and in compliance with Actuarial Standards of Practice. The actuarial value of assets is discussed in more detail in Section 3 of this report.

Statement of Key Findings

Actuarial Liabilities

We independently calculated the Present Value of Benefits, Normal Cost, and Actuarial Accrued Liability under the Entry Age Normal actuarial cost method for all systems. We found that all significant benefit provisions were accounted for in an accurate manner, the actuarial assumptions and methods are being applied as reported, and that our total liabilities matched those calculated by OSA closely. This was true both in aggregate and by individual plan.

A summary of the results for each system is shown in the chart below. Further breakdowns are shown in Section 4.

	OSA	Milliman	Ratio OSA/Milliman
Present Value All Future Benefits (in \$Millions)			
PERS 1	\$ 12,654.5	\$ 12,619.7	100.3%
PERS 2/3	39,236.0	38,948.1	100.7%
TRS 1	9,144.2	9,168.4	99.7%
TRS 2/3	14,508.8	14,587.3	99.5%
SERS 2/3	5,410.5	5,404.0	100.1%
PSERS 2	779.8	775.4	100.6%
LEOFF 1	4,313.2	4,325.3	99.7%
LEOFF 2	12,151.9	12,167.6	99.9%
WSPRS	1,240.2	1,241.4	99.9%
Total PVB	\$ 99,439.1	\$ 99,237.2	100.2%

In the process of comparing liability calculations with the OSA, we noted a minor difference regarding the death benefit for those projected to terminate employment with deferred benefits. The difference was clearly immaterial to the calculations, although it is our understanding that the OSA may make a revision to its methodology, which would result in a very small change from the calculations above.

Funding

We reviewed the funding methods and their application. We find them reasonable and consistent with the Actuarial Standards of Practice and the objectives stated in RCW 41.45.010. Based on the Systems' funding methods and assumptions, we believe the employer contribution rates for each membership class are appropriately calculated.

Statement of Key Findings

Funding (continued)

When we used the liabilities, present value of future salaries, and actuarial assets calculated by OSA, we matched OSA's contribution rate calculations. When we used the liabilities, present value of future salaries, and actuarial assets calculated by Milliman, the results were close to OSA's calculated contribution rates as shown below.

We matched the contribution rates based on the full mortality improvement assumption (100% scale BB) as presented in the OSA's preliminary valuation report. We also matched the contribution rates based on the second step of the phased-in mortality improvement assumption (80% scale BB) as OSA presented to the Pension Funding Council at its June 15, 2016 meeting. Note that we only calculated the LEOFF 2 rates based on the full mortality improvement assumption.

Employer Contribution Rates Full Mortality Improvement Assumption (100% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Employer Contribution Rates (Percent of Member Pay)			
PERS 1	5.22%	5.19%	0.03%
PERS 2/3	8.03%	7.92%	0.11%
TRS 1	7.60%	7.67%	-0.07%
TRS 2/3	8.25%	8.41%	-0.16%
SERS 2/3	8.80%	8.75%	0.05%
PSERS 2	6.98%	6.97%	0.01%
WSPRS	14.90%	14.84%	0.06%
LEOFF 2*	5.25%	5.23%	0.02%

Employee Contribution Rates Full Mortality Improvement Assumption (100% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Member Contribution Rates (Percent of Member Pay)			
PERS 1	6.00%	6.00%	0.00%
PERS 2	7.92%	7.81%	0.11%
TRS 1	6.00%	6.00%	0.00%
TRS 2	7.48%	7.64%	-0.16%
SERS 2	7.80%	7.75%	0.05%
PSERS 2	6.98%	6.97%	0.01%
WSPRS	7.34%	7.34%	0.00%
LEOFF 2*	8.75%	8.71%	0.04%

* Based on a potential LEOFF 2 contribution rate calculation structure of 100% of EANC and the employers' 30% share.

Statement of Key Findings

Funding (continued)

Employer Contribution Rates Phased-In Mortality Improvement Assumption (80% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Employer Contribution Rates (Percent of Member Pay)			
PERS 1	5.03%	5.00%	0.03%
PERS 2/3	7.49%	7.39%	0.10%
TRS 1	7.32%	7.40%	-0.08%
TRS 2/3	7.83%	7.99%	-0.16%
SERS 2/3	8.27%	8.24%	0.03%
PSERS 2	6.73%	6.71%	0.02%
WSPRS	12.81%	12.77%	0.04%
LEOFF 2*	N/A	N/A	N/A

Employee Contribution Rates Phased-In Mortality Improvement Assumption (80% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Member Contribution Rates (Percent of Member Pay)			
PERS 1	6.00%	6.00%	0.00%
PERS 2	7.38%	7.28%	0.10%
TRS 1	6.00%	6.00%	0.00%
TRS 2	7.06%	7.22%	-0.16%
SERS 2	7.27%	7.24%	0.03%
PSERS 2	6.73%	6.71%	0.02%
WSPRS	7.34%	7.34%	0.00%
LEOFF 2	N/A	N/A	N/A

Funding is discussed in more detail in Section 5.

Statement of Key Findings

Actuarial Assumptions

We reviewed the assumptions used in the valuation and found them to be reasonable. A complete analysis of the demographic assumptions was done with the previous actuarial audit, which also included an audit of the 2007 – 2012 Demographic Experience Study. For this audit, we did a brief review of the assumption for future mortality improvement, as the Retirement Plans Experience Committee (RPEC) of the Society of Actuaries (SoA) has issued two more recent tables, which feature two-dimensional assumption to allow for disparate improvements by age and calendar year. We continue to believe that 100% of Scale BB is a good assumption to use. We do not believe that the additional complexity of the new tables leads to a materially better prediction of life expectancies in the context of pension funding.

The economic assumptions used were based on the OSA's 2015 Report on Financial Condition and Economic Experience Study completed in August 2015. While a full audit of that report is beyond the scope of our assignment, we feel an actuarial audit would be incomplete without a review of the important economic assumptions used in the actuarial valuation.

We have the following comments regarding the economic assumptions:

- Our analysis supports the expected rate of return of 7.50% recommended by the OSA, after consideration of the inflation assumption. While the current assumption of 7.70% used for non-LEOFF 2 plans is also reasonable, we believe that 7.50% is a more realistic assumption and recommend that the investment return assumption continue to decrease. 7.50% (or lower) is consistent with the recommendations we are currently making to our retained clients.
- It should be noted that there are recent revisions to Actuarial Standard of Practice No. 27 (ASOP No. 27) that are effective for the June 30, 2015 valuation. These revisions impact how an actuary determines a reasonable assumption. In particular, the new standard narrows an assumption to be considered reasonable only if it has no significant bias (i.e., it is neither significantly optimistic nor pessimistic). The standard does allow for a provision for adverse deviation. When viewed in the context of the new standard, we still believe the investment return assumption is reasonable.
- The inflation assumption of 3.00% is reasonable, as is the real wage growth assumption of 0.75% for productivity. The general salary increase assumption of 3.75% is the sum of these two assumptions. Note that current expectations for inflation implied by financial markets are significantly lower than the 3.00% assumption. Also, the intermediate projection from the Social Security Administration was recently decreased from 2.70% to 2.60%. Consideration could be given to lowering the inflation assumption in future valuations. If that assumption is lowered, it could also impact the investment return assumption.

Statement of Key Findings

Actuarial Assumptions (continued)

- As prescribed, OSA assumes annual growth in active membership varying by plan from 0.80% to 1.25%. Most public sector pension plans assume no future growth in system membership. Please note that this assumption only impacts the amortization of the Plan 1 Unfunded Actuarial Accrued Liability (UAAL) over 10 years. The small membership growth assumption over the 10-year amortization period has a modest impact on the calculated contribution rates.

Review of Preliminary Report

Because the final 2015 Actuarial Valuation reports have not been completed at this time, we base the comments on the preliminary report. Overall, we found OSA's reports to be very thorough. We have made a few comments for consideration for the upcoming reports that may enhance an outside reader's understanding. All of these comments are related to additional disclosure or alterations in the written communication. If implemented, none would have an impact on any of the actuarial calculations. Please see Section 6 of this report for more information about our comments.

Recommendations from Prior Audit

We have also reviewed the comments from our prior actuarial audit and reported on the incorporation of those comments. All of the recommendations pertaining to the valuation calculations were implemented.

Recommendations and Other Considerations

We are not recommending any changes to the current actuarial valuation. We have provided some recommendations for OSA, PFC, and the LEOFF 2 Board to consider in the future, as listed below and discussed in further detail in the body of this report.

Recommended Changes to the 2015 Valuation

None

Recommended Changes for Future Valuations with a Material Financial Impact

None

Recommended Changes for Future Valuations and Experience Studies with a Non-Material Financial Impact

We recommend that the following changes be considered.

- In the process of comparing liability calculations with the OSA, we noted a minor difference regarding the death benefit for those projected to terminate employment with deferred benefits. The difference was clearly immaterial to the calculations, although it is our understanding that the OSA may make a revision to its methodology, which would result in a very small change in the calculations shown in this report.
- **Recommendations from Prior Audit (see end of Section 6):** All of the recommendations pertaining to the valuation calculations were implemented. There are recommendations for the next experience study which should be considered at that time.

Recommended Changes for Future Valuations and Experience Studies with No Direct Financial Impact

We recommend that OSA consider the following actions for future valuations and the experience studies they are based on:

- **Information in Report (see Comments Regarding OSA's Reports in Section 6).**

Section 2 Membership Data

Audit Conclusion



We performed tests on both the raw data supplied by the Department of Retirement Systems (DRS) and the processed data used by the Office of the State Actuary (OSA) in the June 30, 2015 actuarial valuation. We found that the data used by OSA was consistent with the data supplied by DRS.

Based on this review, we feel the individual member data used is appropriate and complete.

Comments

Overall, the data process appears to be thorough and accurate. We would add the following comments:

- **Raw Data:** OSA provided us with the same files that were given to them by DRS for use in the actuarial valuation.

Completeness: The data contained all the necessary fields to perform the actuarial valuation.

Quality: Although we did not audit the data at the source, we performed some independent checks to confirm the overall reasonableness of the data. We compared the total retiree and beneficiary benefit amounts with the actual benefit payments made, as reported in the asset statements.

We also compared the total active member compensation on the DRS data with the estimated active payroll for 2014-2015. The actual member contribution amounts in the asset statements provided by DRS were divided by the applicable contribution rates for the prior year for each plan. This results in an estimated payroll for each plan. Based on this analysis, we found the compensation data to be reasonable.

- **Parallel Data Processing:** We performed independent edits on the raw data provided by DRS and then compared our results with the valuation data used by OSA, as summarized in the preliminary participant data summary on the OSA's website. We found our results to be consistent.

Our results do not match exactly. This is understandable, as some adjustments were made to annualize salary for those with less than one year of service during the valuation period and other adjustments were made for a few data elements outside of the expected range. Overall, each key data component matched well within an acceptable level and we believe the individual member data used by the OSA was appropriate for valuation purposes.

Comments
(continued)

A summary of the data for each plan is shown in Exhibit 2-1. In all cases, the summarized totals for our edited data matched those for OSA's valuation data closely. The "Milliman" column reflects the DRS data after adjustments by Milliman. The "OSA" column reflects the actual data used in the OSA's valuation as summarized in the preliminary participant data summary on the OSA's website.

Exhibit 2-1
Member Statistics as of June 30, 2015

All Plans			
	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	301,260	301,260	100.0%
Total Salaries (millions)	\$ 17,823	\$ 17,825	100.0%
Average Age	47.3	47.3	100.0%
Average Service	12.0	12.0	100.0%
Average Projected Compensation	\$ 59,160	\$ 59,168	100.0%
Retirees and Survivors			
Total Number	163,788	163,788	100.0%
Average Monthly Pension	\$ 1,849	\$ 1,848	100.1%
Terminated Members			
Total Number Vested	57,981	57,981	100.0%
Total Number Non-Vested	125,114	125,114	100.0%

Comments
(continued)

Exhibit 2-1 (continued)
Member Statistics as of June 30, 2015

PERS 1			
	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	3,927	3,927	100.0%
Total Salaries (millions)	\$ 231	\$ 231	100.0%
Average Age	63.6	63.6	100.0%
Average Service	25.3	25.3	100.0%
Average Projected Compensation	\$ 58,748	\$ 58,738	100.0%
Retirees and Survivors			
Total Number	50,270	50,270	100.0%
Average Monthly Pension	\$ 1,968	\$ 1,965	100.2%
Terminated Members			
Total Number Vested	999	999	100.0%
Total Number Non-Vested	3,373	3,376	99.9%

PERS 2			
	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	117,768	117,768	100.0%
Total Salaries (millions)	\$ 7,205	\$ 7,205	100.0%
Average Age	48.3	48.3	100.0%
Average Service	12.5	12.5	100.0%
Average Projected Compensation	\$ 61,176	\$ 61,184	100.0%
Retirees and Survivors			
Total Number	38,693	38,693	100.0%
Average Monthly Pension	\$ 1,435	\$ 1,436	99.9%
Terminated Members			
Total Number Vested	26,830	26,830	100.0%
Total Number Non-Vested	101,538	101,535	100.0%

Comments
(continued)

Exhibit 2-1 (continued)
Member Statistics as of June 30, 2015

PERS 3				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	31,602	31,602	100.0%	
Total Salaries (millions)	\$ 1,780	\$ 1,780	100.0%	
Average Age	43.4	43.4	100.0%	
Average Service	8.6	8.6	100.0%	
Average Projected Compensation	\$ 56,320	\$ 56,333	100.0%	
Retirees and Survivors				
Total Number	3,186	3,186	100.0%	
Average Monthly Pension	\$ 823	\$ 822	100.1%	
Terminated Members				
Total Number Vested	4,961	4,961	100.0%	
Total Number Non-Vested	N/A	N/A	100.0%	

TRS 1

	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	1,353	1,353	100.0%
Total Salaries (millions)	\$ 108	\$ 108	100.0%
Average Age	64.5	64.5	100.0%
Average Service	31.3	31.3	100.0%
Average Projected Compensation	\$ 79,603	\$ 79,574	100.0%
Retirees and Survivors			
Total Number	35,239	35,239	100.0%
Average Monthly Pension	\$ 2,122	\$ 2,120	100.1%
Terminated Members			
Total Number Vested	267	267	100.0%
Total Number Non-Vested	381	381	100.0%

Comments
(continued)

Exhibit 2-1 (continued)
Member Statistics as of June 30, 2015

TRS 2				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	15,342	15,342	100.0%	
Total Salaries (millions)	\$ 945	\$ 945	100.0%	
Average Age	42.4	42.4	100.0%	
Average Service	8.4	8.4	100.0%	
Average Projected Compensation	\$ 61,610	\$ 61,610	100.0%	
Retirees and Survivors				
Total Number	4,305	4,305	100.0%	
Average Monthly Pension	\$ 1,787	\$ 1,787	100.0%	
Terminated Members				
Total Number Vested	2,428	2,428	100.0%	
Total Number Non-Vested	5,413	5,413	100.0%	

TRS 3				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	52,125	52,125	100.0%	
Total Salaries (millions)	\$ 3,722	\$ 3,721	100.0%	
Average Age	46.2	46.2	100.0%	
Average Service	14.0	14.0	100.0%	
Average Projected Compensation	\$ 71,403	\$ 71,395	100.0%	
Retirees and Survivors				
Total Number	7,453	7,453	100.0%	
Average Monthly Pension	\$ 1,041	\$ 1,040	100.1%	
Terminated Members				
Total Number Vested	8,259	8,259	100.0%	
Total Number Non-Vested	N/A	N/A	100.0%	

Comments
(continued)

Exhibit 2-1 (continued)
Member Statistics as of June 30, 2015

SERS 2				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	24,479	24,479	100.0%	
Total Salaries (millions)	\$ 734	\$ 735	99.9%	
Average Age	50.2	50.2	100.0%	
Average Service	9.7	9.7	100.0%	
Average Projected Compensation	\$ 29,998	\$ 30,021	99.9%	
Retirees and Survivors				
Total Number	6,562	6,562	100.0%	
Average Monthly Pension	\$ 836	\$ 836	100.0%	
Terminated Members				
Total Number Vested	5,572	5,572	100.0%	
Total Number Non-Vested	10,940	10,940	100.0%	

SERS 3				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	31,326	31,326	100.0%	
Total Salaries (millions)	\$ 962	\$ 963	100.0%	
Average Age	50.4	50.4	100.0%	
Average Service	10.6	10.6	100.0%	
Average Projected Compensation	\$ 30,725	\$ 30,740	100.0%	
Retirees and Survivors				
Total Number	5,750	5,750	100.0%	
Average Monthly Pension	\$ 454	\$ 454	100.0%	
Terminated Members				
Total Number Vested	7,491	7,491	100.0%	
Total Number Non-Vested	N/A	N/A	100.0%	

Comments
(continued)

Exhibit 2-1 (continued)
Member Statistics as of June 30, 2015

PSERS 2				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	5,202	5,202	100.0%	
Total Salaries (millions)	\$ 302	\$ 302	100.0%	
Average Age	40.3	40.3	100.0%	
Average Service	5.4	5.4	100.0%	
Average Projected Compensation	\$ 58,115	\$ 58,130	100.0%	
Retirees and Survivors				
Total Number	80	80	100.0%	
Average Monthly Pension	\$ 486	\$ 486	100.0%	
Terminated Members				
Total Number Vested	294	294	100.0%	
Total Number Non-Vested	1,694	1,694	100.0%	

LEOFF 1				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	82	82	100.0%	
Total Salaries (millions)	\$ 9	\$ 9	100.0%	
Average Age	63.6	63.6	100.0%	
Average Service	39.6	39.6	100.0%	
Average Projected Compensation	\$ 106,683	\$ 106,683	100.0%	
Retirees and Survivors				
Total Number	7,507	7,507	100.0%	
Average Monthly Pension	\$ 4,008	\$ 4,008	100.0%	
Terminated Members				
Total Number Vested	-	-	-	
Total Number Non-Vested	32	32	100.0%	

Comments
(continued)

Exhibit 2-1 (continued)
Member Statistics as of June 30, 2015

LEOFF 2			
	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	17,019	17,019	100.0%
Total Salaries (millions)	\$ 1,743	\$ 1,743	100.0%
Average Age	43.6	43.7	99.8%
Average Service	14.7	14.7	100.0%
Average Projected Compensation	\$ 102,411	\$ 102,434	100.0%
Retirees and Survivors			
Total Number	3,710	3,710	100.0%
Average Monthly Pension	\$ 3,529	\$ 3,529	100.0%
Terminated Members			
Total Number Vested	785	785	100.0%
Total Number Non-Vested	1,693	1,693	100.0%

WSPRS 1			
	OSA	Milliman	Ratio OSA/Milliman
Active Members			
Total Number	560	560	100.0%
Total Salaries (millions)	\$ 48	\$ 48	100.0%
Average Age	47.0	47.0	100.0%
Average Service	20.1	20.1	100.0%
Average Projected Compensation	\$ 86,535	\$ 86,530	100.0%
Retirees and Survivors			
Total Number	1,033	1,033	100.0%
Average Monthly Pension	\$ 4,088	\$ 4,088	100.0%
Terminated Members			
Total Number Vested	75	75	100.0%
Total Number Non-Vested	17	17	100.0%

Comments
(continued)

Exhibit 2-1 (continued)
Member Statistics as of June 30, 2015

WSPRS 2				
	OSA	Milliman	Ratio OSA/Milliman	
Active Members				
Total Number	475	475	100.0%	
Total Salaries (millions)	\$ 33	\$ 33	100.0%	
Average Age	33.2	33.2	100.0%	
Average Service	6.5	6.5	100.0%	
Average Projected Compensation	\$ 70,238	\$ 70,238	100.0%	
Retirees and Survivors				
Total Number	-	-	100.0%	
Average Monthly Pension	\$ -	\$ -	100.0%	
Terminated Members				
Total Number Vested	20	20	100.0%	
Total Number Non-Vested	33	33	100.0%	

This page intentionally left blank.

DRAFT

Section 3 Actuarial Value of Assets

Audit Conclusion



We have reviewed the calculations for the actuarial value of assets used for each plan in the June 30, 2015 valuation. We found the calculations to be reasonable and the methodology to be appropriate and in compliance with Actuarial Standards of Practice.

Comments

The method used to determine the actuarial value of assets smoothes investment gains and losses by reflecting a portion of the difference between the actual market value of assets and the expected market value for every fiscal year. For each year and each plan, a base for smoothed recognition over time is established equal to that difference.

The larger the deviation from expectation, the longer the recognition period for that base, with a level dollar amount recognized for each year of that period. For the largest deviations (more than 7% above or below the assumption), the gains or losses are recognized over eight years, whereas when the actual return is within 1% of the assumption, the gain or loss is recognized immediately. Additionally, a “corridor” is applied to make sure that the smoothed actuarial value of assets stays within 30% of the market value of assets.

Although it is unusual to recognize investment gains and losses over different periods, we believe it is a reasonable approach since the maximum smoothing period is reasonable and the method allows the actuarial value of assets to converge to market more rapidly if gains and losses are small.

We independently calculated the actuarial value of assets for each plan based on financial information provided by the Department of Retirement Systems (DRS) and the Washington State Investment Board (WSIB). DRS and WSIB both provide market values of assets by plan. Note that there are small differences between the values provided by DRS and WSIB. Per our conversation with OSA, the DRS values are used for the market value of assets. The WSIB data is only used to determine the monthly cash flows (contributions minus benefit payments) needed to calculate the expected value of assets.

Comments
(continued)

We used the information from DRS, WSIB, along with the outstanding gain/loss bases as published in the 2014 Actuarial Valuation Report. With this information and the asset methodology, our independent calculations were within 0.05% of the OSA's calculation for every plan.

Please see the following exhibit for a comparison.

Exhibit 3-1
Comparison of Actuarial Value of Assets by Plan

AVA (millions)					
	OSA		Milliman		Ratio OSA/Milliman
PERS					
Plan 1	\$	7,315	\$	7,313	100.0%
Plan 2/3 (DB)	\$	28,292	\$	28,287	100.0%
TRS					
Plan 1	\$	5,870	\$	5,869	100.0%
Plan 2/3 (DB)	\$	9,953	\$	9,951	100.0%
SERS					
Plan 2/3 (DB)	\$	3,901	\$	3,900	100.0%
PSERS					
Plan 2	\$	338	\$	338	100.0%
LEOFF					
Plan 1	\$	5,404	\$	5,403	100.0%
Plan 2	\$	9,320	\$	9,319	100.0%
WSPRS					
Plan 1 & 2	\$	1,067	\$	1,067	100.0%

As discussed above, OSA uses an asset smoothing method to reduce volatility. A five-year smoothing method is the most commonly used method among large public retirement systems. OSA uses a variable length of smoothing period, with eight years as the longest possible period. We believe the use of an asset smoothing method is appropriate, and we generally recommend this to our clients, particularly in systems where contribution rates change annually or biennially.

When a smoothing method is used, the actuarial value of assets will deviate from the market value of assets. Many public retirement systems apply a corridor so that the actuarial value of assets is not allowed to deviate from the market value by more than a certain percentage. The potential downside of using a corridor is that it can cause significant contribution rate volatility when the assets are outside the corridor. OSA applies a corridor of 30%.

Comments (continued)

Typically, the longer the recognition period, the more important it is seen to have a corridor. We believe that the eight-year smoothing period, coupled with the application of the corridor, is in compliance with ASOP No. 44, the actuarial standard of practice for the selection and use of asset valuation methods for pension valuations.

In October 2014, the Conference of Consulting Actuaries (CCA) issued a white paper entitled *Actuarial Funding Policies and Practices for Public Pension Plans* which includes guidelines for asset smoothing methodologies. This paper was drafted in part as a response to the void left by the fact that the soon to be applicable statements of the Governmental Accounting Standards Board (GASB) no longer specify the parameters for an Annual Required Contribution (ARC). The CCA was comprised of a group of public plan actuaries from the major firms in public plan practice who met more than 24 times over two years.

OSA's method of smoothing with recognition periods eight years or less, along with a 30% corridor, falls in the "Acceptable Practices" category under these guidelines (categories described below for reference). OSA's method is almost inside of the CCA "Model Practices" category. That could be achieved with a smoothing period of five years or fewer with a 50% corridor or a smoothing period of seven years or fewer with a 40% corridor. Note that the "Model Practices" are not intended to be "best practices," but are the ones considered to be most consistent with the Level Cost Allocation Model. Therefore, this is not a recommendation to change, just an observation.

OSA's method is consistent with all of the CCA specific policy objectives and considerations for an asset smoothing method. Its consistency with the primary objectives is shown by the following:

- All components of the asset method are specified: return subject to smoothing, smoothing period, corridor, and method of recognizing deferred amounts.
- It is unbiased compared to market value.
- It does not selectively reset to market when market value is greater than actuarial value.
- Realized and unrealized gains and losses are treated the same.
- It is consistent with the Actuarial Standard of Practice No. 44 concept of being likely to return to market in a reasonable period and likely to stay within a reasonable range of market value.

We feel that the OSA's method is reasonable and consistent with the policy objectives of the State which are described in RCW 41.45.010 as being "to provide a dependable and systematic process for funding the benefits provided to members and retirees" of the Washington State Retirement Systems.

Comments
(continued)

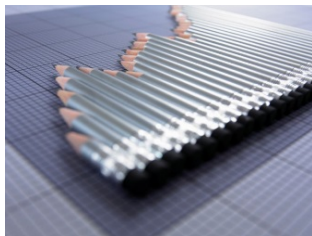
For reference, the categories in the CCA guidelines are shown below.

Categories Under CCA Guidelines	
Model Practices	Those practices most consistent with the Level Cost Allocation Model (LCAM).
Acceptable Practices	Generally those which, while not consistent with the LCAM, are well established in practice and typically do not require additional analysis.
Acceptable Practices with Conditions	May be acceptable in some circumstances either to reflect different policy objectives or on the basis of additional analysis.
Non-Recommended Practices	Systems using these practices should acknowledge the policy concerns identified in the CCA Guidelines or acknowledge they reflect different policy objectives.
Unacceptable Practices	No description provided by CCA, but implication is that these should not be used.

DRAFT

Section 4 Actuarial Liabilities

Audit Conclusion



We independently calculated the present value of future benefits and future salaries and the entry age normal costs for the Washington State Public Retirement Systems. We found that all significant benefit provisions were accounted for in an accurate manner and the actuarial assumptions and methods are being applied correctly. Our total liabilities closely matched those calculated by OSA. This was true both in aggregate and by System.

Note that there will always be differences in the calculated liabilities when different software is used by different actuaries; however, the results should not deviate significantly. The level of consistency we found in this audit provides a high level of assurance that the results of the valuation accurately reflect the liabilities of the Washington State Public Retirement Systems based on the plan provisions, assumptions, methods, and census and financial data.

Comments

We incorporated the following information into our valuation system:

- **Data** – We used the data provided by DRS. As discussed in Section 2, we confirmed that this data was consistent with the valuation data used by OSA.
- **Assumptions and Methods** – We used the assumptions and methods recommended by OSA for the June 30, 2015 actuarial valuation. This was supplemented by discussions between OSA and Milliman on the technical application of these methods.
- **Benefit Provisions** – We obtained this information from the Revised Code of Washington and various member handbooks.

We then performed an independent parallel valuation as of June 30, 2015. Based on this valuation, we completed a detailed comparison of the Present Value of Future Benefits (PVFB) computed in our independent valuation and the amounts calculated by OSA. Exhibit 4-1 shows a summary of this analysis broken down by benefit type. Exhibit 4-2 shows a summary of this analysis broken down by System. The results were reasonable, and our calculated PVFB values match closely with those calculated by OSA.

Comments
(continued)

Exhibit 4-1
Present Value of Future Benefits by Benefit Type

(in \$Millions)	OSA	All Systems in Aggregate	
		Milliman	O / M Ratio
Present Value All Future Benefits			
Retirement	\$51,291.2	51,010.0	100.6%
Termination	\$2,095.6	2,113.7	99.1%
Death	\$999.7	981.9	101.8%
Disability	<u>\$572.9</u>	<u>559.2</u>	<u>102.4%</u>
Total Actives*	\$54,959.3	\$54,664.9	100.5%
Terminated Vested	\$4,321.9	\$4,310.9	100.3%
Terminated Not Vested	<u>307.8</u>	<u>308.2</u>	<u>99.9%</u>
Total Inactive, not in Payment	\$4,629.7	\$4,619.1	100.2%
Retired	\$35,295.2	\$35,393.5	99.7%
Disabled	\$2,258.1	2,258.4	100.0%
Survivor	\$2,193.1	2,197.4	99.8%
LOP Liability	<u>\$103.8</u>	<u>103.9</u>	<u>99.9%</u>
Total Annuitants*	\$39,850.1	\$39,953.2	99.7%
Total Members	\$99,439.1	\$99,237.2	100.2%

Comments
(continued)

Exhibit 4-2
Present Value of Future Benefits by System

	OSA	Milliman	Ratio OSA/Milliman
Present Value All Future Benefits (in \$Millions)			
PERS 1			
Active Members	\$ 1,214.6	\$ 1,185.6	102.4%
Inactive Members	<u>11,439.9</u>	<u>11,434.1</u>	<u>100.1%</u>
Total	\$ 12,654.5	\$ 12,619.7	100.3%
PERS 2/3			
Active Members	\$ 27,694.2	\$ 27,366.0	101.2%
Inactive Members	<u>11,541.9</u>	<u>11,582.1</u>	<u>99.7%</u>
Total	\$ 39,236.0	\$ 38,948.1	100.7%
TRS 1			
Active Members	\$ 581.6	\$ 585.3	99.4%
Inactive Members	<u>8,562.6</u>	<u>8,583.1</u>	<u>99.8%</u>
Total	\$ 9,144.2	\$ 9,168.4	99.7%
TRS 2/3			
Active Members	\$ 11,065.0	\$ 11,125.4	99.5%
Inactive Members	<u>3,443.8</u>	<u>3,461.9</u>	<u>99.5%</u>
Total	\$ 14,508.8	\$ 14,587.3	99.5%

Comments
(continued)

Exhibit 4-2 (continued)
Present Value of Future Benefits by System

	OSA	Milliman	Ratio OSA/Milliman
Present Value All Future Benefits (in \$Millions)			
SERS 2/3			
Active Members	\$ 3,659.1	\$ 3,645.0	100.4%
Inactive Members	<u>1,751.4</u>	<u>1,759.0</u>	<u>99.6%</u>
Total	\$ 5,410.5	\$ 5,404.0	100.1%
PSERS 2			
Active Members	\$ 750.4	\$ 746.0	100.6%
Inactive Members	<u>29.5</u>	<u>29.3</u>	<u>100.5%</u>
Total	\$ 779.8	\$ 775.4	100.6%
LEOFF 1			
Active Members	\$ 101.1	\$ 100.2	100.9%
Inactive Members	<u>4,212.1</u>	<u>4,225.1</u>	<u>99.7%</u>
Total	\$ 4,313.2	\$ 4,325.3	99.7%
LEOFF 2			
Active Members	\$ 9,405.1	\$ 9,420.1	99.8%
Inactive Members	<u>2,746.8</u>	<u>2,747.6</u>	<u>100.0%</u>
Total	\$ 12,151.9	\$ 12,167.6	99.9%
WSPRS			
Active Members	\$ 488.2	\$ 491.2	99.4%
Inactive Members	<u>752.0</u>	<u>750.2</u>	<u>100.2%</u>
Total	\$ 1,240.2	\$ 1,241.4	99.9%

Comments
(continued)

We also looked at the Entry Age Normal Accrued Liability (EAN AL). EAN AL is used by OSA to measure the funded ratios and is described in Section 5. Exhibit 4.3 shows the audit had a good match of EAN AL. The EAN AL is consistent with the requirements of the recently revised accounting standards, GASB No. 67 and GASB No. 68.

Exhibit 4-3
Comparison of Entry Age Normal Accrued Liability

	OSA	Milliman	Ratio OSA/Milliman
Entry Age Normal Accrued Liability (EAN AL) (in \$Millions)			
PERS 1	\$ 12,553.5	\$ 12,535.3	100.1%
PERS 2/3	32,007.6	31,742.9	100.8%
TRS 1	9,107.5	9,134.1	99.7%
TRS 2/3	10,830.0	10,824.3	100.1%
SERS 2/3	4,381.5	4,367.5	100.3%
PSERS 2	356.9	352.6	101.2%
LEOFF 1	4,307.1	4,324.6	99.6%
LEOFF 2	8,838.5	8,876.9	99.6%
WSPRS	1,093.0	1,088.5	100.4%
Total EAN AL	\$ 83,475.5	\$ 83,246.6	100.3%

Lastly, we looked at both the present value of future salaries and the entry age normal cost (EANC) rates, which are used in the determination of the minimum contribution rates.

Exhibit 4-4
Present Value of Future Salaries and EANC Rate

(in \$Millions)	All Systems in Aggregate		
	OSA	Milliman	O / M Ratio
Present Value of Future Salaries	\$162,133.4	\$160,700.3	100.9%
Entry Age Normal Cost Rate	10.03%	10.06%	99.7%

Recommendations

In the process of comparing liability calculations with the OSA, we noted a minor difference regarding the death benefit for those projected to terminate employment with deferred benefits. The difference was clearly immaterial to the calculations, although it is our understanding that the OSA may make a revision to its methodology, which would result in a very small change from the calculations above.

Section 5 Funding

Audit Conclusion



Comments

We reviewed the funding methods and their application. We find them reasonable and consistent with the Actuarial Standards of Practice and the objectives stated in RCW 41.45.010. Based on the Systems' funding methods and assumptions, we believe the employer contribution rates for each membership class are appropriately calculated.

When we used the liabilities, present value of future salaries, and actuarial assets calculated by OSA, we matched OSA's contribution rate calculations. When we used the liabilities, present value of future salaries, and actuarial assets calculated by Milliman, the results were close to OSA's calculated contribution rates as shown below.

We matched the contribution rates based on the full mortality improvement assumption (100% scale BB) as presented in the OSA's preliminary valuation report. We also matched the contribution rates based on the second step of the phased-in mortality improvement assumption (80% scale BB) as OSA presented to the Pension Funding Council at its June 15, 2016 meeting. Note that we only calculated the LEOFF 2 rates based on the full mortality improvement assumption.

Employer Contribution Rates Full Mortality Improvement Assumption (100% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Employer Contribution Rates (Percent of Member Pay)			
PERS 1	5.22%	5.19%	0.03%
PERS 2/3	8.03%	7.92%	0.11%
TRS 1	7.60%	7.67%	-0.07%
TRS 2/3	8.25%	8.41%	-0.16%
SERS 2/3	8.80%	8.75%	0.05%
PSERS 2	6.98%	6.97%	0.01%
WSPRS	14.90%	14.84%	0.06%
LEOFF 2*	5.25%	5.23%	0.02%

Employee Contribution Rates Full Mortality Improvement Assumption (100% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Member Contribution Rates (Percent of Member Pay)			
PERS 1	6.00%	6.00%	0.00%
PERS 2	7.92%	7.81%	0.11%
TRS 1	6.00%	6.00%	0.00%
TRS 2	7.48%	7.64%	-0.16%
SERS 2	7.80%	7.75%	0.05%
PSERS 2	6.98%	6.97%	0.01%
WSPRS	7.34%	7.34%	0.00%
LEOFF 2*	8.75%	8.71%	0.04%

* Based on a potential LEOFF 2 contribution rate calculation structure of 100% of EANC and the employers' 30% share.

Comments
(continued)

Employer Contribution Rates
Phased-In Mortality Improvement Assumption (80% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Employer Contribution Rates (Percent of Member Pay)			
PERS 1	5.03%	5.00%	0.03%
PERS 2/3	7.49%	7.39%	0.10%
TRS 1	7.32%	7.40%	-0.08%
TRS 2/3	7.83%	7.99%	-0.16%
SERS 2/3	8.27%	8.24%	0.03%
PSERS 2	6.73%	6.71%	0.02%
WSPRS	12.81%	12.77%	0.04%
LEOFF 2*	N/A	N/A	N/A

Employee Contribution Rates
Phased-In Mortality Improvement Assumption (80% Scale BB)

	OSA	Milliman	Difference OSA - Milliman
Member Contribution Rates (Percent of Member Pay)			
PERS 1	6.00%	6.00%	0.00%
PERS 2	7.38%	7.28%	0.10%
TRS 1	6.00%	6.00%	0.00%
TRS 2	7.06%	7.22%	-0.16%
SERS 2	7.27%	7.24%	0.03%
PSERS 2	6.73%	6.71%	0.02%
WSPRS	7.34%	7.34%	0.00%
LEOFF 2	N/A	N/A	N/A

Comments (continued)

The remainder of this section describes in detail why we believe the funding policies used to calculate contribution rates are reasonable and consistent with the objectives described in the RCW.

Policy Objectives

The contribution rate calculations for the Washington State retirement systems are complex. Much of this complexity is due to efforts to conform with articulated policy objectives. RCW 41.45.010 states that it is the intent of the legislature to provide a dependable and systematic process for funding the benefits provided to members and retirees of the State's retirement systems and sets out five specific goals:

1. To fully fund the Plans 2 and 3 as provided by law;
2. To fully amortize LEOFF Plan 1 costs not later than June 30, 2024;
3. To fully amortize the unfunded actuarial accrued liability for PERS and TRS Plans 1 within a rolling 10-year period, using methods and assumptions that balance needs for increased benefit security, decreased contribution rate volatility, and affordability of pension contribution rates;
4. To establish long-term employer contribution rates which will remain a relatively predictable proportion of the future state budgets; and
5. To fund, to the extent feasible, all benefits for plan 2 and 3 members over the working lives of those members so that the cost of those benefits are paid by the taxpayers who receive the benefit of those members' service.

Although not specifically stated in RCW 41.45.010, the funding policies also achieve the following goals:

1. The same employer contribution rate is maintained for all members in the same class regardless of Plan. For example: employers make the same contribution for all TRS members regardless of whether they are in Plan 1, 2 or 3.
2. Funding risk is shared by both employers and members. In Plan 2, both employer and member contribution rates vary based on plan experience. In Plan 3, members take the risk associated with their contributions since they are deposited in the defined contribution plan.

Actuarial Cost Methods

The funding policies of the Washington State Retirement Systems are based on two actuarial cost methods: the Aggregate cost method and the Entry Age cost method. The Funded Ratios are measured based on the Entry Age cost method. The following text describes these methods.

Purpose of a Cost Method and Normal Cost

The purpose of any actuarial cost method is to allocate the cost of future benefits to specific time periods, typically during a member's projected working career. This is clearly stated in *Pension Mathematics for Actuaries*, A.W. Anderson, second edition, 1990, p. 5.

"The painful lesson which has been learned over and over again in the last century by various types of employers – first private employers, and later public employers – is that the cost of a pension plan must be recognized during the *working lifetimes* of the employees who are ultimately going to receive pensions, preferably by actually funding amounts sufficient to provide completely for each employee's life annuity at the time of retirement." The text goes on to state on p. 6: "This is where actuaries come into the picture, ... The actuary can ... assign to each fiscal year a portion of the present value of future benefit payments in such a way as generally to accrue costs over the working lifetimes of employees. Any scheme for making such an assignment of costs is called an *actuarial cost method* – which we shall henceforth refer to simply as a "cost method."

The cost assigned to a specific year is called the Normal Cost.

Aggregate Cost Method

Under the Aggregate cost method, the Normal Cost rate is equal to the level percentage of pay necessary to fund the difference between the present value of all future benefits for current members (PVFB) and the actuarial value of assets (AVA). The difference between PVFB and AVA is funded by future contributions. Each year, the Normal Cost spreads all required future contributions evenly over the present value of future salaries for current members. When actual experience is better or worse than expected experience, the Normal Cost in subsequent years will go down or up, respectively. The contribution calculated by the Aggregate cost method is therefore equal to the Aggregate Normal Cost.

Note that while appropriate for funding, this method does not result in a calculation of the liability independent of assets and therefore does not provide a meaningful "Funded Ratio." OSA currently addresses this by use of the Entry Age actuarial cost method. That method is used to calculate the Funded Ratio and is used for GASB accounting and financial reporting.

Plans 2 and 3 employer and member contribution rates are primarily set using the Aggregate cost method.

Entry Age Actuarial Cost Method

The Entry Age cost method is the most common method used by public plans. The goal of the Entry Age method is the theoretical allocation of projected benefit costs as a level percent of pay over the members' entire working lifetimes. The Entry Age Normal Cost (EANC) is the theoretical level percent of pay which, if contributed from the members' dates of hire to their dates of projected retirement, would exactly fund their benefits if all experience exactly matched the actuarial assumptions. Actual experience better or worse than expected will not change the EANC. The EANC is not anticipated to increase or decrease from year to year. Experience better or worse than expected creates a positive or negative Unfunded Actuarial Accrued Liability (UAAL), which is funded separately from the EANC.

Entry Age Actuarial Cost Method (continued)

Therefore, systems using the Entry Age cost method have two components to their calculated costs: (1) the EANC, which is meant to be a level % of pay, and (2) the UAAL amortization contribution, which is the balancing item that makes sure all future benefits are financed if future experience follows the assumptions, and contributions are made according to schedule.

For the purposes of the Washington State plans, the Entry Age method is only used to set minimum contribution rates based on the EANC. This is a logical use of EANC and should increase contribution stability since it represents the theoretical level percentage of pay contribution required to fund benefits if future experience follows the actuarial assumptions. Specifically, RCW sets minimum contribution rates as follows:

- PERS, TRS, SERS and PSERS Plan 2/3 employers and Plan 2 members have a minimum contribution rate based on sharing 80% of EANC. [RCW 41.45.155 and RCW 41.45.158]
- WSPRS employers and members have a minimum contribution rate based on sharing 70% of EANC [RCW 41.45.0631].
- The LEOFF Plan 2 Board has established a policy that considers contribution rates equal to both 90% and 100% of the EANC and has recently established contribution rates based on 100% of the EANC.

Plans 2 and 3 Funding Policy

In general, the Plans 2 and 3 funding policies for PERS, TRS, SERS, PSERS and WSPRS are based on the Aggregate Cost method and work as described below. Note that where the following text makes references to “Plans 2 and 3” the references should be substituted with “Plans 1 and 2” for WSPRS. Also, please note that PSERS has no Plan 3. RCW 41.45 describes the actuarial funding of state retirement systems. The primary references for Plans 1, 2 and 3 funding are [RCW 41.45.060 Basic State and Employer Contribution Rates], [RCW 41.45.061 Required Contribution Rates for Plan 2 Members] and [RCW 41.45.0631 Washington State Patrol Retirement System].

1. First, the remaining Plans 2 and 3 “past liability balances,” which are financed entirely by employer contributions, are determined. Currently for PERS, TRS and SERS, these are due to gain sharing, and for WSPRS these are due to distributions under RCW 43.43.270(2) for survivors of members who became disabled under RCW 43.43.040(2) prior to July 1, 2006. The remaining past liability balances are determined by taking the prior year’s balance, adding interest, and subtracting employer contributions based on the corresponding supplemental employer percent of pay contribution rates: PERS 0.11%, TRS 0.77%, SERS 1.00% and WSPRS 1.32%.
2. The Plans 2 and 3 Present Value of Future Contributions shared by employers and members is calculated as:

	Present Value All Future Benefits
minus	Actuarial Value of Assets
minus	Past Liability Balance
	<hr/> Present Value of Future Contributions

**Plans 2 and 3 Funding
Policy
(continued)**

3. The Plans 2 and 3 Aggregate Normal Cost Rate is determined by spreading the present value of future contributions shared by employers and members over the present value of future Plans 2 and 3 member salaries. The calculation takes into account that Plan 3 members do not contribute to the defined benefit plans.
4. Plans 2 and 3 minimum employer and member contribution rates are applied based on the EANC. The minimum rate for PERS, TRS, SERS and PSERS is 80% of EANC. The minimum rate for WSPRS is 70% of EANC. LEOFF 2 contributions for the 2015-2017 biennium are currently based on 100% of the EANC based on the 2013 actuarial valuation. This is currently larger than the Aggregate Normal Cost Rate.
5. Plans 2 maximum member contribution rates are applied to TRS [RCW 41.45.061] and WSPRS [RCW 41.45.0631]. This results in the Plan 2 member contribution rates. Note that the maximum for WSPRS was recently increased by 0.15% due a change in the duty-related death benefits upon remarriage under SHB 1194.
6. The Plans 2 and 3 employer rates are increased by the supplemental contributions rates used to finance past liability balances. As described above these are: PERS 0.11%, TRS 0.77%, SERS 1.00% and WSPRS 1.32%.
7. Plans 2 and 3 employer rates are also increased to account for any maximums applied to member contribution rates resulting in the final Plans 2 and 3 employer contribution rates.

**LEOFF 2 Funding
Policy**

The LEOFF 2 funding policy follows the same general pattern as the other Plans 2 and 3 with fewer details. As stated above, LEOFF 2 contributions are currently based on 100% of the EANC, which works like a minimum since it is currently larger than the Aggregate Normal Cost Rate. The total contribution is paid 50% by employees, 30% by employers, and 20% by the State [RCW 41.26.725]. In addition, RCW 41.26.720 states that the actuary shall “utilize the aggregate actuarial cost method, or other recognized actuarial cost method based on a level percentage of payroll.” Since (a) 100% of EANC is the theoretical contribution that will finance benefits if paid as a level percent of pay over the members’ full working careers, and (b) 100% of EANC is larger than the Aggregate Normal Cost, the method currently employed is consistent with the RCW.

The current LEOFF 2 funding policy might be interpreted as: paying the greater of 100% of EANC or the Aggregate Normal Cost. This works well to establish a stable contribution rate (100% EANC) while ensuring liabilities are financed over a responsible period (Aggregate Normal Cost). However, the current funding policy does not address how stable contribution rates will be maintained if the Plan’s funding ratio continues to increase. Specifically, the Board may wish to proactively consider: (a) If the funding ratio continues to increase, at what point action should be taken (b) What that action would be. For instance, two potential actions consistent with stable contribution rates would be to de-risk retiree liability, or to adopt more conservative assumptions.

Plans 1 Funding Policy (PERS, TRS, SERS and PSERS)

PERS and TRS Plans 1 are both closed to new members. The PERS and TRS Plans 1 funding policies have been designed to produce equal total contribution rates for PERS and TRS employers regardless of whether their employees are in Plans 1, 2 or 3, and to share the responsibility of PERS Plan 1 benefits with SERS and PSERS employers. It works as follows.

1. All PERS and TRS Plan 1 members have fixed contribution rates equal to 6.00% of pay.
2. The remaining balances for any liability from Plan 1 benefit improvements effective after June 30, 2009 are determined. These liabilities are financed based on rates that were calculated to amortize them over a fixed 10-year period using combined Plans 1, 2 and 3 salaries. The remaining balances are determined by taking the prior year's balance, adding interest, and subtracting employer contributions based on the corresponding employer percent of pay contribution rates: PERS 0.14% and TRS 0.15%.
3. The Present Value of Future Normal Costs (PVFNC) is determined. The Plan 1 funding policy defines this to be the present value of future contributions made by Plan 1 employees plus the present value of future employer contributions made as a percent of Plan 1 member pay based on the Plans 2 and 3 employer contribution rates calculated above. This must be taken into account to keep the contribution rates equal for Plans 1, 2 and 3.
4. The Plan 1 UAAL is calculated as:

	Present Value All Future Benefits
minus	PVFNC
minus	Actuarial Value of Assets
minus	Balance Post 2009 Improvements
	<hr/> Unfunded Actuarial Accrued Liability

5. The Unfunded Actuarial Accrued Liability Rate (UAAL Rate) is calculated as the percent of Plans 1, 2, and 3 member pay to amortize the Plan 1 UAAL over 10 years as a level percentage of projected payroll. This is based on a rolling 10-year period which means every year the UAAL is amortized over a new 10-year period. This helps to keep rates stable while amortizing a material portion of the remaining UAAL each year.
6. Minimum contribution rates of 3.50% of pay for PERS 1 UAAL and 5.75% of pay for TRS 1 UAAL are applied. When combined with the rolling 10-year period, these will help to get the UAAL for the Plans 1 completely financed over a reasonable period instead of indefinitely re-amortizing it over 10 years.

Conference of Consulting Actuaries White Paper

As mentioned in Section 3, in October 2014, the Conference of Consulting Actuaries (CCA) issued a white paper titled *Actuarial Funding Policies and Practices for Public Pension Plans*. The white paper was composed by a group of public plan actuaries from the major consulting firms that work with public plans and was the result of an extensive series of meetings which lasted for over two years. The white paper focuses on a Level Cost Allocation Model (LCAM) and provides detailed analysis for classifying each of the three major components of LCAM funding policies: (a) cost methods, (b) asset methods and (c) amortization methods. The classification system uses the following terms:

Categories Under CCA Guidelines	
Model Practices	Those practices most consistent with the Level Cost Allocation Model (LCAM).
Acceptable Practices	Generally those which, while not consistent with the LCAM, are well established in practice and typically do not require additional analysis.
Acceptable Practices with Conditions	May be acceptable in some circumstances either to reflect different policy objectives or on the basis of additional analysis.
Non-Recommended Practices	Systems using these practices should acknowledge the policy concerns identified in the CCA Guidelines or acknowledge they reflect different policy objectives.
Unacceptable Practices	No description provided by CCA, but implication is that these should not be used.

We will make reference to the CCA white paper in our discussion below.

Evaluation of Funding Policy

As stated earlier, we believe the funding policies are consistent with Actuarial Standards of Practice and with the intended policy objectives. Additional specific comments follow below.

The Aggregate cost method is used as the foundation for the funding policies. The Aggregate cost method is classified as “Acceptable” by the CCA white paper, is well established in practice, and is consistent with the objectives in that document.

The Aggregate cost method is specifically designed to fully fund all future benefits for current members (that are not financed by accumulated assets) over the remaining projected working lifetimes of those members. This represents excellent “demographic matching,” which is to say benefits are funded over the working lifetimes of the members receiving them. It is also excellent at avoiding “agency risk” issues, which means use of the Aggregate method makes it very difficult to push the cost of benefits for current members onto future generations.

The Aggregate method is also consistent with the policy objectives identified in RCW 41.45.010, which is particularly evidenced by how well the fifth policy objective is satisfied: to fund, to the extent feasible, all benefits for Plan 2 and 3 members over the working lives of those members so that the cost of those benefits are paid by the taxpayers who receive the benefit of those members' service.

**Evaluation of Funding
Policy
(continued)**

The Aggregate method's primary shortcoming is that it passes all gains and losses through to the Normal Cost, which pays for them over the comparatively short, although very responsible, period of the active members' projected remaining working lifetimes. The downside of this is that it can decrease the stability of short-term costs. This shortcoming is addressed in the funding policy by smoothing asset gains and losses over as much as eight years, as well as by applying the minimum contribution rates. Eight-year asset smoothing is longer than five years, which is the most common length of asset smoothing. The comparatively longer asset smoothing period helps partially offset the comparatively shorter financing period for gains and losses under the Aggregate cost method. The minimum contribution rates equal to 70% or 80% of the EANC help avoid temporary large decreases in contributions due to good investment experience at the peak of a market cycle.

The Plans 1 policy of contributing at a level which finances the Unfunded Actuarial Accrued Liability (UAAL) over a rolling 10-year period based on the pay of Plans 1, 2 and 3 is a rough equivalent of the Aggregate Cost Method. The 10-year rolling period bears a very general similarity to financing UAAL over the members' projected remaining working lifetimes. When the minimum contribution rates of 3.50% for PERS 1 and 5.75% for TRS are added, the policy also has an element that will help to get the UAAL for the Plans 1 completely financed over a reasonable period instead of indefinitely re-amortizing it over a rolling 10-year period. The funding policy is very consistent with the third policy objective listed in RCW 41.45.010, which is to fully amortize the UAAL for PERS and TRS Plans 1 within a rolling 10-year period, using methods and assumptions that balance needs for increased benefit security, decreased contribution rate volatility, and affordability of pension contribution rates.

As stated above the 100% of EANC currently contributed for LEOFF 2, which is larger than the Aggregate Normal Cost, is consistent with the RCW and shares the advantages discussed for the other Plans 2 and 3. Paying 100% of EANC also avoids making contributions which are less than the expected long-term cost of benefits. Short-term rate stability is increased since rates will not fluctuate every year due to gains and losses, particularly investment gains and losses, being reflected in the Aggregate Normal Cost. Some margin is provided for adverse experience since the rates are higher than the Aggregate Normal Cost. A contribution policy of 100% EANC does require consistent monitoring. However, this monitoring occurs automatically under the policy as long as the contribution is not allowed to be less than the Aggregate Normal Cost.

Section 6 Review of Preliminary Report and Recommendations from Prior Audit

Audit Conclusion



Because the final 2015 Actuarial Valuation report has not been completed at this time, we base the comments in this section on the preliminary report. We have made a few comments for consideration for the upcoming reports that may enhance an outside reader's understanding. All of these comments are related to additional disclosure, and, if implemented, none would have an impact on the contribution rates.

We have also reviewed the comments from our prior actuarial audit and reported on the incorporation of those comments. All of the recommendations pertaining to the valuation calculations were implemented.

Comments Regarding OSA's Reports

- In the preliminary valuation report, all of the calculations are based on the full mortality improvement assumption (100% scale BB). Because the Pension Funding Council and LEOFF 2 Board had not taken any action regarding the 2017-2019 contribution rates at the time that the preliminary report was published, there is no information regarding the actual contribution rates set for 2017-2019.

For the final valuation report, it is our recommendation that it be made clear what the actual contribution rates are and what assumptions were used to develop those rates. We also think it would be good to have a comparison to the actual contribution rates used for the 2015-2017 biennium.

- The term Present Value of Accrued (Earned) Benefits is sometimes used in the preliminary report to identify the portion of the present value of future benefits that has been "earned" as of the valuation date based on the Entry Age Normal (EAN) actuarial cost method. As an example, on page 7 the term Present Value of Accrued (Earned) Benefits is used in the table describing Actuarial Liabilities. However, in the Funded Status table on page 8 the same numbers are labeled as "Accrued Liability." We have not seen the term Present Value of Accrued (Earned) Benefits applied to this measure of liability before. However, the term Present Value of Accrued (Earned) Benefits is often used for a different purpose.

Actuarial literature uses the term Entry Age Actuarial Accrued Liability, or simply the Actuarial Accrued Liability. This is because under the Entry Age method, liabilities are determined by allocating costs not benefits. Although the term "Present Value of Accrued (Earned) Benefits" may be easier for the general reader to accept, we recommend the report be changed to uniformly use the term "Accrued Liability" as is used in the Funded Status table on page 8, or the longer term "Actuarial Accrued Liability." We base this recommendation on the need for a consistent set of terminology to be used across actuarial practice.

- Some of the labels in the chart on page 25 of the preliminary valuation report were displayed incorrectly. We brought this to the attention of OSA, and OSA stated that the issue will be corrected for the final report.
- We had a handful of additional suggestions for the text in the report. OSA indicated that those suggestions will be considered for the final valuation report.

Recommendations from Prior Audit

Recommendations Addressed

- **Calculation of Entry Age.** OSA now calculates entry age based on service rounded to the nearest year
- **Salary used in Plan 1 Amortization.** OSA now excludes merit increases from the projection of the first year salary used in the Plan 1 amortization calculation.
- **Weighting of Entry Age Normal Cost (EANC).** OSA now weights the EANC rate for Plans 2 and 3 based on current membership.
- **Non-Duty Disability Benefit in Year before Retirement Eligibility for LEOFF 2.** OSA revised the calculation of the end-of-year portion of the age 49 non-duty disability benefit.
- **Additional Information in the Report.** The preliminary valuation report did reflect many of the suggestions made in the prior audit.

Considerations for Next Experience Study. The prior actuarial audit had some suggestions for changes to be implemented with the experience study. It is our understanding that OSA will consider implementing those suggestions with the next experience study. Those suggestions include mortality analysis by benefit amount, immediate commencement for members with 30 years of service, exclusion of people eligible for early retirement from the termination analysis, consideration of adding a portability assumption, and reflecting increases in medical costs that can occur after retirement.



LEOFF 2 Board Actuarial Audit

Nick Collier and Daniel Wade
July 27, 2016

Purpose & Scope

- **Purpose:** Review OSA's work and confirm that the results of the valuation are reasonable.
- **Scope:**
 - Full independent replication of June 30, 2015 Actuarial Valuation
 - Match contribution rates.



Bottom Line

- What you need to know
 - OSA's actuarial work is reasonable and appropriate
 - Good match on liabilities and contribution rates
 - Package of assumptions is reasonable
 - Recommendation
 - No changes needed to 2015 valuation.
 - Suggestions from prior audit Incorporated
 - All addressed appropriately. Some items will wait for experience study.



Parallel Valuation Results

Actuarial Liabilities

- Good match by Benefit Type
- Match both PVB and EAN AL

(in \$Millions)	LEOFF 2 Results		
	OSA	Milliman	O / M Ratio
Present Value All Future Benefits			
Retirement	\$8,499.5	\$8,518.1	99.8%
Termination	246.4	244.9	100.6%
Death	268.1	275.7	97.2%
Disability	391.0	381.3	102.5%
Total Actives	\$9,405.0	\$9,420.0	99.8%
Terminated Vested	\$178.3	\$180.1	99.0%
Terminated Not Vested	11.0	11.0	100.0%
Total Inactive, not in Payment	\$189.3	\$191.1	99.0%
Retired	\$2,238.1	\$2,243.6	99.8%
Disabled	160.4	156.8	102.3%
Survivor	107.9	104.9	102.9%
LOP Liability	51.1	51.0	100.2%
Total Annuitants	\$2,557.5	\$2,556.3	100.0%
Total Members	\$12,151.8	\$12,167.4	99.9%
Entry Age Normal Accrued Liability			
Total Members	\$8,838.5	\$8,876.9	99.6%

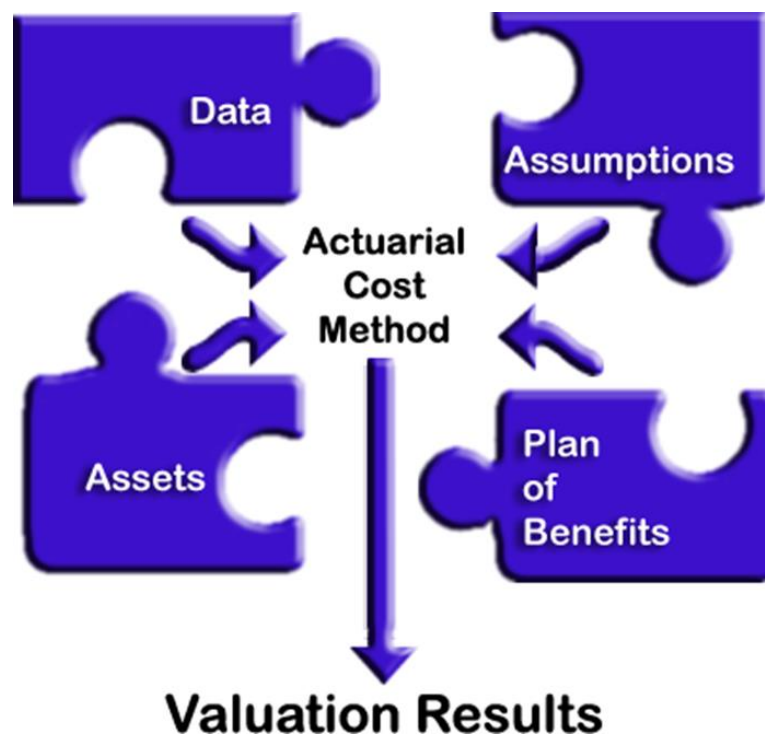
Calculated Contribution Rates

- Good match

Contribution Rates OSA				
	2015-17 Adopted Rates	2017-19 Preliminary Contribution Rates Aggregate	90% EANC	100% EANC
Member	8.41%	7.46%	7.88%	8.75%
Employer	5.05%	4.48%	4.73%	5.25%
State	3.36%	2.98%	3.15%	3.50%

Contribution Rates Milliman				
	2015-17 Adopted Rates	2017-19 Preliminary Contribution Rates Aggregate	90% EANC	100% EANC
Member	8.41%	7.50%	7.84%	8.71%
Employer	5.05%	4.50%	4.70%	5.23%
State	3.36%	3.00%	3.14%	3.48%

Actuarial Valuation



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.

Membership Data (continued)

LEOFF 2			
	OSA	Milliman	Ratio OSA/Milliman
<i>Active Members</i>			
Total Number	17,019	17,019	100.0%
Total Salaries (millions)	\$ 1,743	\$ 1,743	100.0%
Average Age	43.6	43.7	99.8%
Average Service	14.7	14.7	100.0%
Average Projected Compensation	\$ 102,411	\$ 102,434	100.0%
<i>Retirees and Survivors</i>			
Total Number	3,710	3,710	100.0%
Average Monthly Pension	\$ 3,529	\$ 3,529	100.0%
<i>Terminated Members</i>			
Total Number Vested	785	785	100.0%
Total Number Non-Vested	1,693	1,693	100.0%

Benefits, Assumptions and Methods

- Benefits
 - Benefits valued are consistent with RCW and member handbooks
- Methods and assumptions used in valuation are reasonable

Actuarial Value of Assets

- Data provided by WSIB and DRS
 - Totals and breakdown by Plan taken from DRS data
 - Monthly cash flows taken from WSIB data.
- Independent calculation by Milliman based on sources of data
- Asset method and calculations are reasonable



Conclusion

- No changes recommended to 2015 valuation



Questions?

Caveats and Disclaimers

This presentation is based on the data, methods, assumptions and plan provisions described in our actuarial audit report. The statements of reliance and limitations on the use of this material is reflected in the actuarial audit report and apply to this presentation.

These statements include reliance on data provided, on actuarial certification, and the purpose of the report.

Milliman's work product was prepared exclusively for the PFC for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning OSA and DRS operations, and uses DRS data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.



Contribution Rate Adoption

Report Type:

Final Proposal

Date Presented:

7/27/2016

Presenter Name and Title:

Ryan Frost, Research and Policy Manager

Summary:

Final proposal for contribution rate adoption.

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
▢ Contribution Rate Setting	Presentation



Contribution Rate Setting

July 27, 2016

OVERVIEW

- ▶ **Goals and Achievements**
- ▶ **Contribution Rate History**
- ▶ **Options**

GOALS AND ACHIEVEMENTS

► Fully-funded Status

- Maintain 100% or Better Funded Status
- Projection of Fully-funded Status through 6/30/2019

► Stable Contribution Rates

- Predictable Increases

CONTRIBUTION RATE HISTORY

► Since Board inception in 2003

Start Date	End Date	Member Rate	Employer Rate
07/01/03	01/31/04	5.05%	3.25%
02/01/04	08/31/04	5.07%	3.26%
09/01/04	06/30/05	5.09%	3.25%
07/01/05	08/31/05	6.75%	4.24%
09/01/05	06/30/06	6.99%	4.39%
07/01/06	08/31/06	7.79%	4.87%
09/01/06	06/30/07	7.85%	4.90%
07/01/07	08/31/07	8.60%	5.35%
09/01/07	06/30/08	8.64%	5.35%
07/01/08	06/30/09	8.83%	5.46%
07/01/09	08/31/09	8.45%	5.23%
09/01/09	06/30/13	8.46%	5.24%
07/01/13	08/31/13	8.41%	5.21%
09/01/13		8.41%	5.23%

OPTIONS

Option	Member	Employer	State
1: Maintain Existing Adopted Rates for 2017-2019	8.85%	5.31%	3.54%
2: 100% EANC from 2015 Valuation	8.75%	5.25%	3.50%
3: 90% EANC from 2015 Valuation	7.88%	4.73%	3.15%

CONTACT

Ryan Frost

Research and Policy Manager

ryan.frost@leoff.wa.gov

360-586-2325



DRS Annual Update

Date Presented:

7/27/2016

Presenter Name and Title:

Marcie Frost, Director, Department of Retirement Systems

Jacob White, Legal and Legislative Services Manager, Department of Retirement Systems

Summary:

An annual update from the Department of Retirement Systems

Strategic Linkage:

This item supports the following Strategic Priority Goals:

Maintain the financial integrity of the plan., Inform the stakeholders.

ATTACHMENTS:

Description	Type
▣ DRS Year in Review	Presentation
▣ DRS Year in Review	Report

Department of Retirement Systems **Year in Review**

*Marcie Frost, Director, and Jacob White,
Legal and Legislative Services Manager*

LEOFF 2 Board
July 27, 2016



DRS Stats as of June 2016

☐ Dollars Collected

- ☐ Members – \$1.3B last FY
- ☐ Employers – \$2.1B last FY

☐ Dollars Paid

- ☐ \$357M in June 2015
- ☐ \$4.4B last FY

☐ Team Members - 247

☐ Employers - 1326

☐ Plan Members

- ☐ Active – 311,137
- ☐ Annuitants – 170,395
- ☐ Inactive – 246,572
- ☐ Total – 728,104

☐ Work Load

- ☐ Phone Calls – 189,302
- ☐ Walk-Ins – 5,883
- ☐ Emails – 17,316
- ☐ Estimates – 18,628
- ☐ Calculations – 11,059
- ☐ Recalculations – 6,748

Strategies/Breakthrough Map

- ❑ New initiatives or operational capability improvements
- ❑ Clarity to the organization about the resource allocation/priorities
- ❑ Provides direction to the Project Management Division

2015-17 Strategic Initiatives

KEY GOAL	July 2015-June 2016	July 2016-June 2017	July 2017-June 2018
Elated Customers	Recalc Black Belt Project (Seth)	Autocalc Pilot (Seth)	
	Online Service Enhancements (Rose)	EFT Withdrawals (Mike)	
		Online Withdrawal (Shawn)	
	Recordkeeper Enhancements (Shawn)		
	DCP Auto-Enroll for New Hires (Shawn)		
		Final Month Payments (Jacob)	
Engaged Team Members	Facility Planning (Mike)		
	"DRS U" (Chris)		
		Enterprise Change Mgmt (Shawn)	
Vigilant Resource Steward or Best Practice Leader			
	System Modernization Planning – Phase 2 (Rose)		
Reliable Partner	Employer Reporting Application (Shawn)		
	Hosting Environment (Rose)		
	Implement 2016 Legislative Projects (mix)		

DRS Perspective on Culture

- ☐ Customer satisfaction with high levels of team engagement
- ☐ Emphasis on connective every team member into the management system
- ☐ High levels of self and team accountability
- ☐ Problem solving by everyone – common language
- ☐ Leadership that is supportive and engaged – facilitating style
- ☐ Start with yes
- ☐ One team approach to serving the customer

Customer Satisfaction

O1-Customer Satisfaction (Seth)

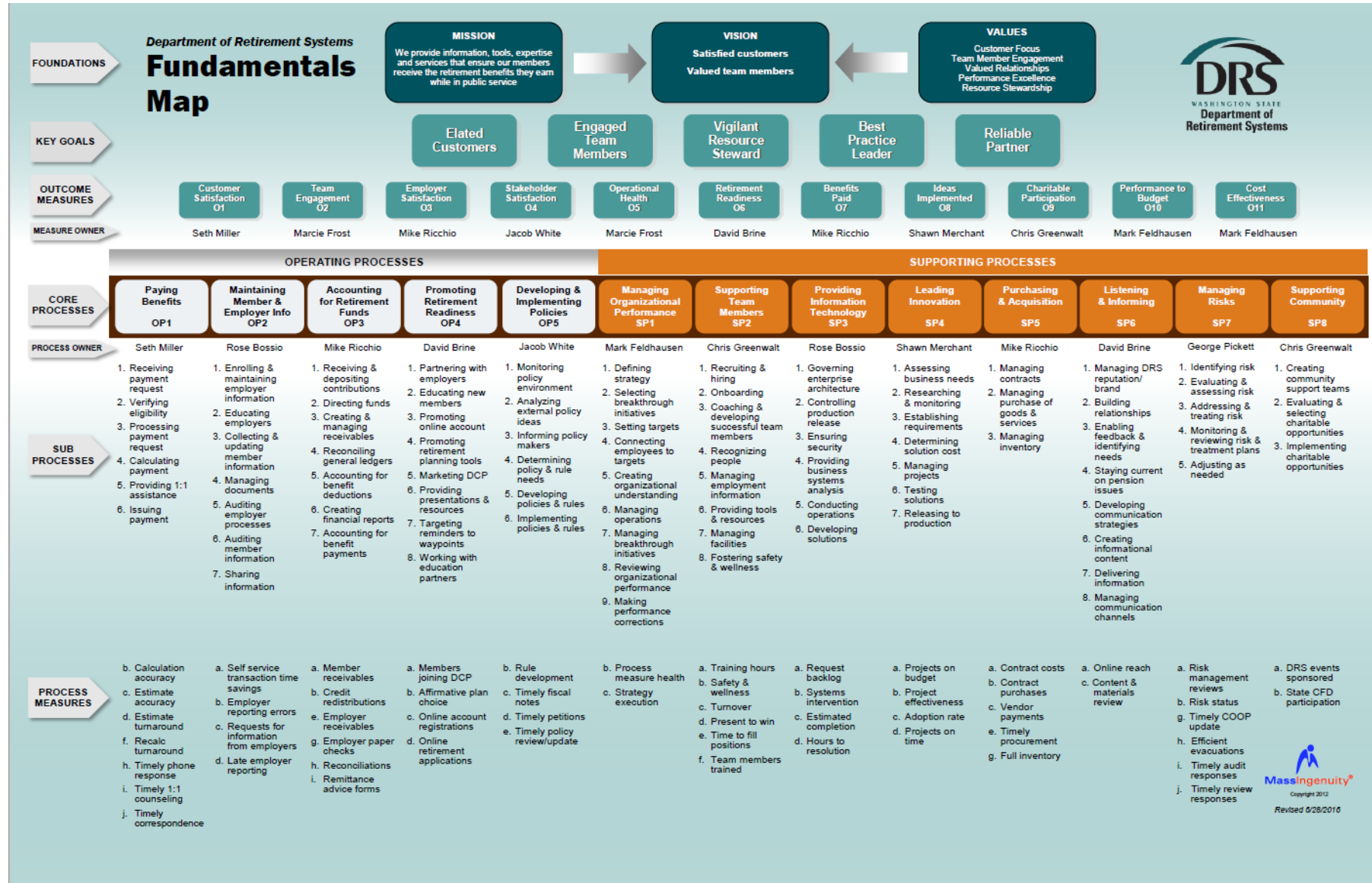
	Category	QTR1	QTR2	QTR3	QTR4	QTR5	QTR6	QTR7	QTR8	QTR9	QTR10	QTR11	QTR12	QTR13	QTR14	QTR15	QTR16
Respectful	Valued Customer			87%	96%	94%	98%	95%	95%	94%	96%	97%	98%	96%	100%	97%	99%
	Carefully Guided			79%	87%	86%	93%	85%	90%	89%	90%	90%	91%	94%	97%	96%	93%
	Informed of Issues			77%	88%	83%	84%	83%	86%	85%	89%	90%	88%	93%	89%	92%	94%
Responsive	Quick Access			91%	96%	94%	97%	92%	95%	93%	95%	92%	96%	96%	96%	94%	94%
	Timely Response			82%	91%	92%	92%	91%	90%	89%	91%	89%	93%	93%	93%	97%	94%
	Informed Status			74%	81%	79%	80%	80%	84%	83%	80%	77%	73%	87%	85%	91%	88%
	Anticipate Needs			80%	87%	89%	93%	92%	91%	89%	93%	91%	93%	95%	93%	97%	99%
	Online Tools			81%	86%	85%	86%	90%	91%	90%	88%	90%	90%	91%	90%	92%	88%
Right	Accurate Info			89%	93%	92%	94%	94%	93%	90%	94%	94%	96%	97%	98%	97%	95%
	Correct/Timely \$			90%	95%	97%	94%	95%	93%	96%	95%	94%	97%	97%	95%	95%	97%

Team Engagement

O2-Team Engagement (Marcie)

Category	QTR1	QTR2	QTR3	QTR4	QTR5	QTR6	QTR7	QTR8	QTR9	QTR10	QTR11	QTR12	QTR13	QTR14	QTR15	QTR16
Customer Focused	84%	88%	90%	79%	76%	74%	67%	76%	80%	78%	85%	84%		86%	86%	86%
People & Team Focused	79%	79%	72%	70%	70%	72%	74%	78%	78%	76%	77%	76%		79%	82%	84%
Support & Engaged Leadership	79%	84%	74%	72%	66%	66%	70%	76%	81%	75%	80%	83%		84%	88%	88%
Open & Transparent Comm	71%	78%	76%	75%	76%	71%	61%	68%	64%	63%	70%	67%		75%	77%	81%
Learning & Growth	71%	76%	76%	75%	74%	76%	72%	76%	76%	75%	83%	83%		82%	81%	77%
Accountability	74%	79%	79%	73%	70%	68%	70%	76%	80%	76%	77%	71%		67%	72%	70%
Pursuit of Excellence	86%	91%	91%	86%	81%	79%	75%	83%	88%	83%	85%	83%		84%	89%	93%

Fundamentals Map

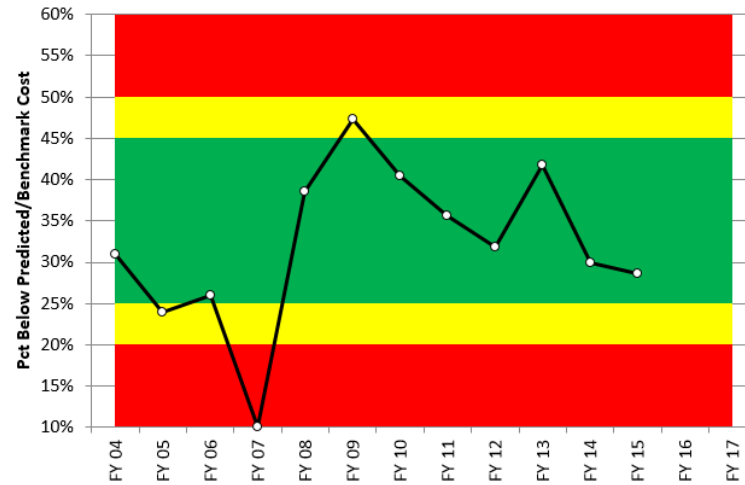


Quarterly Target Review Success Factors

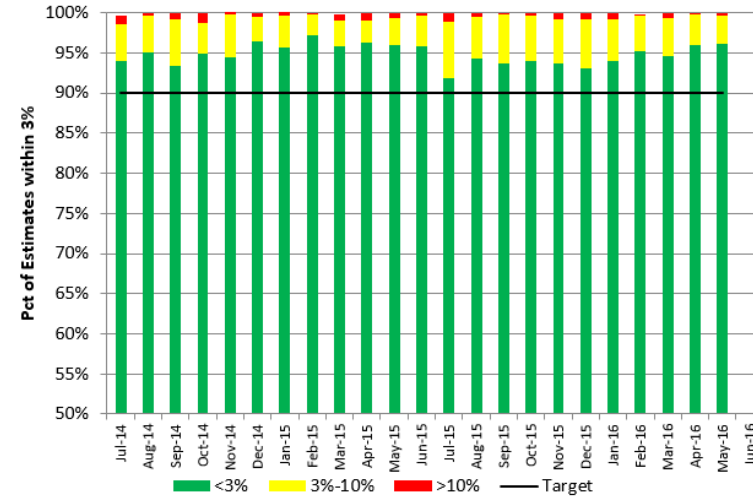
- ❑ Transparency is key to engagement
- ❑ What gets measured gets managed
- ❑ Creating an environment where everyone is responsible for performance
- ❑ High levels of accountability by agency leadership
- ❑ Table top exercises
 - ❑ D&D Benefits
 - ❑ Flipping the pyramid

Quarterly Target Review

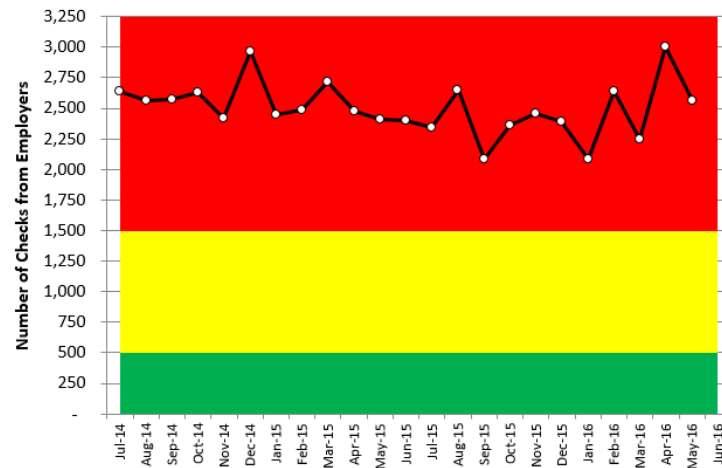
O11-Cost Effectiveness (Mark)



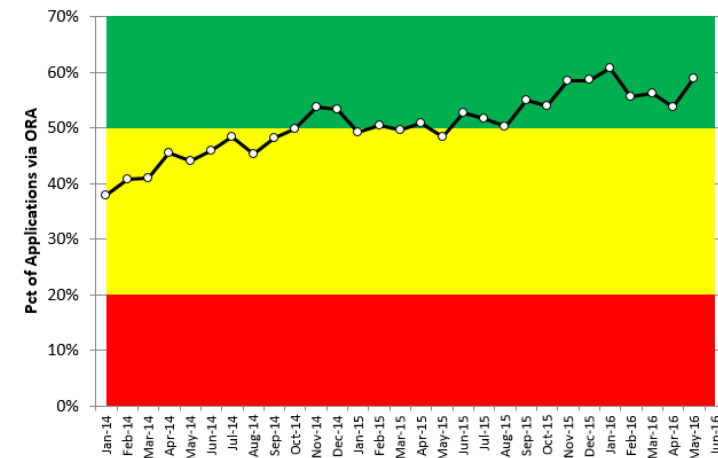
OP1c-Estimate Accuracy (Seth)



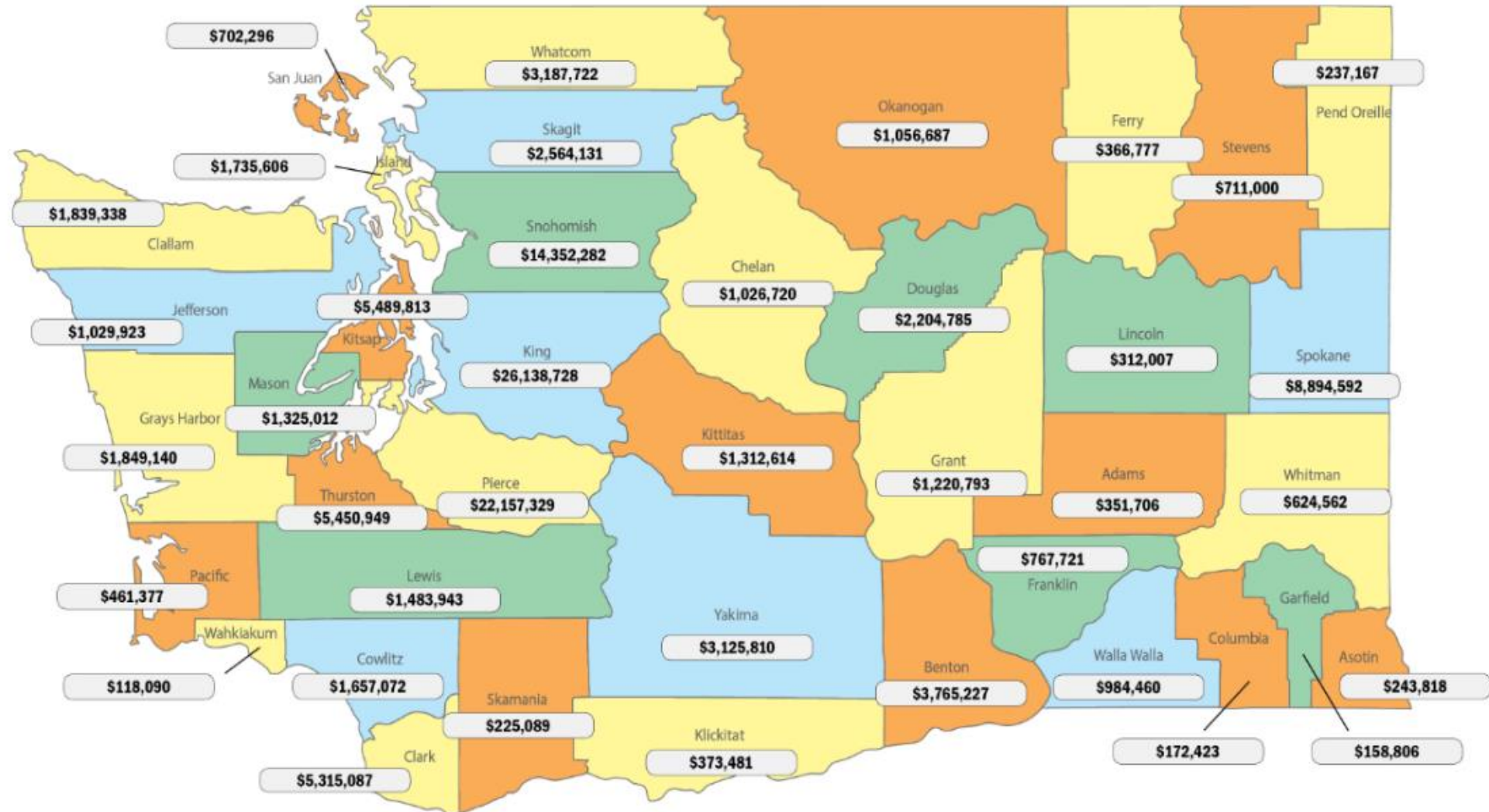
OP3g-# of Employer Paper Checks (Mike)



OP4d-Online Retirement Applications (David)



Benefits Paid to LEOFF 2 Annuitants FY 2015-2016



Disability Determinations

- ❑ Increasing Complexity and Volume
 - ❑ PTSD claims becoming more frequent
 - ❑ Multi causal claims increasing as population ages
- ❑ Evaluating Ways to Make Determinations
 - ❑ Increased Use of Independent Medical Evaluations
 - ❑ Other Sources of Medical Review
- ❑ Inter-agency agreement with OAH

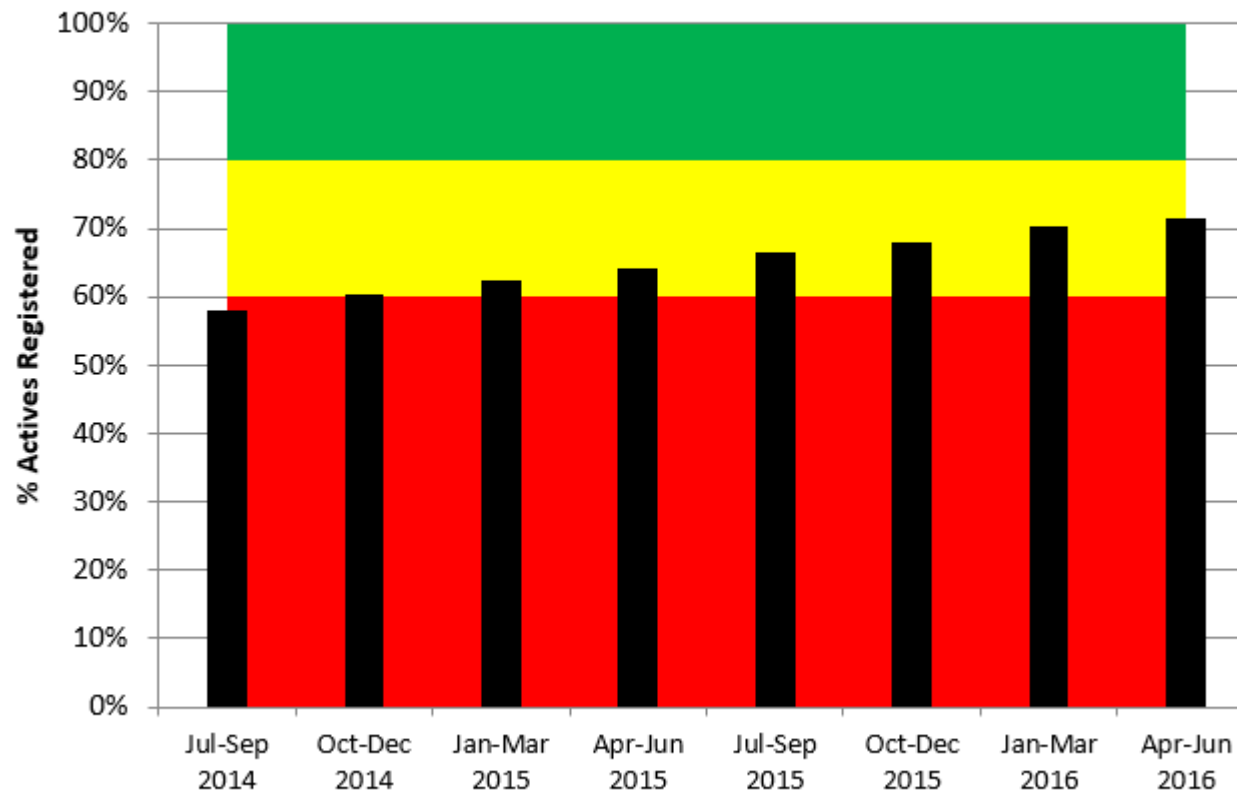
Purchase of Additional Annuity

Retirement Year	Paid PAA Optional Bills	Sum of Purchase Amount
2014	11	\$2,387,485
2015	67	\$14,851,512
2016	17	\$3,467,626
Grand Total	95	\$20,706,623

- ❑ SB 6264 allows LEOFF Plan 2 retirees whose retirement was effective prior to June 1, 2014, to purchase an annuity between January 1, 2017 and June 1, 2017
- ❑ About 7,000 retirees are eligible
- ❑ A minimum payment of \$25,000 is required

Online Account Access

OP4c-% Mbrs Registered for Online Acct Access (David)



Online Account Access Enhancements

Change Direct Deposit

Current Direct Deposit for PERS 1

[Return to Direct Deposit List](#)

Status: Ready for Direct Deposit

Next Payment Date: 04/29/2016	Financial Institution: Transit Routing Number: Account Type: Account Number: Benefit Paper Statement Option:	U.S. Bank NA 125000105 Checking XXXXXXXXXX6789 When a change is made to my account and at the end of the year.
Will deposit to: U.S. Bank NA	Established: Status:	12/02/2015 Ready for Direct Deposit

Change Direct Deposit

Bank Account Number on File:

Please enter the bank account number DRS has on file for your direct deposit. [\[Explain this?\]](#)

New Transit Routing Number:

[\[Explain this?\]](#)

Confirm New Transit Routing Number:

For security purposes, customers with an existing direct deposit are required to validate their current bank account information before updating their direct deposit.

Change Beneficiary Designation - All Beneficiaries

Current Beneficiary Designations

[What You Need Before You Start](#)

[Additional Information](#)

Retirement System or Program

	Beneficiary	Designation	Percentage
PERS 2	View/Edit Download/Print		
	Jane Smith	Primary	50
	Tammy Smith	Primary	25
	John Smith	Primary	25
	Make A Wish	Contingent	50
	Smith, Joan (Estate Of)	Contingent	50
SERS 3	View/Edit Download/Print		
	Tammy Smith	Primary	100
DCP	View/Edit Download/Print		
	Tammy Smith	Primary	100

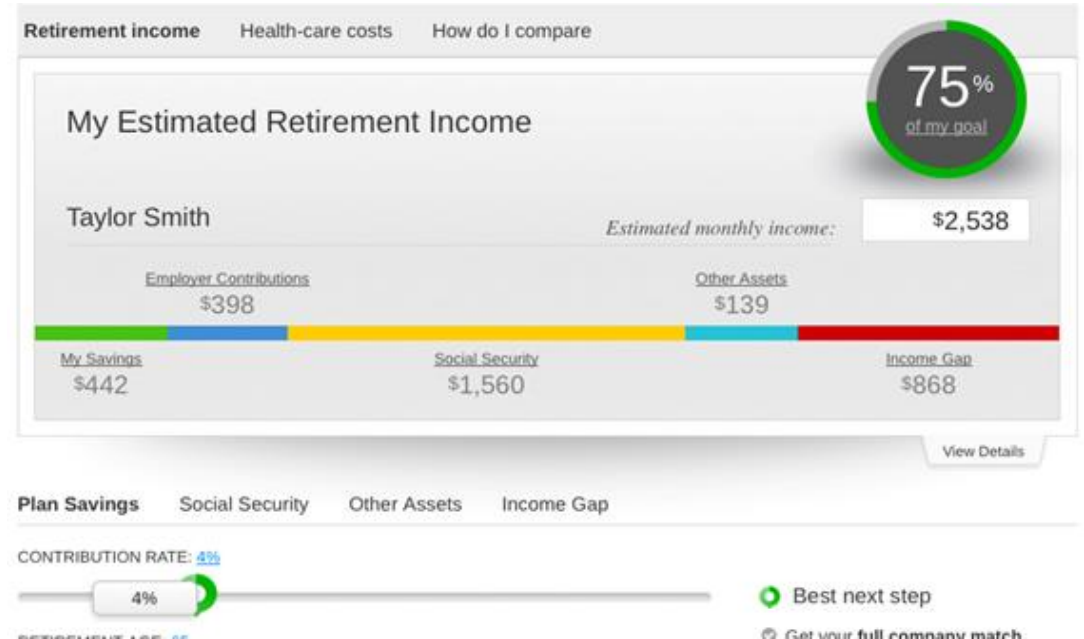
Duty-Related Death Benefit

	Beneficiary	Designation	Percentage
PERS 2	View/Edit Download/Print		
	Jane Smith	Primary	50
	Tammy Smith	Primary	25
	John Smith	Primary	25
	Make A Wish	Contingent	50
	Smith, Joan (Estate Of)	Contingent	50

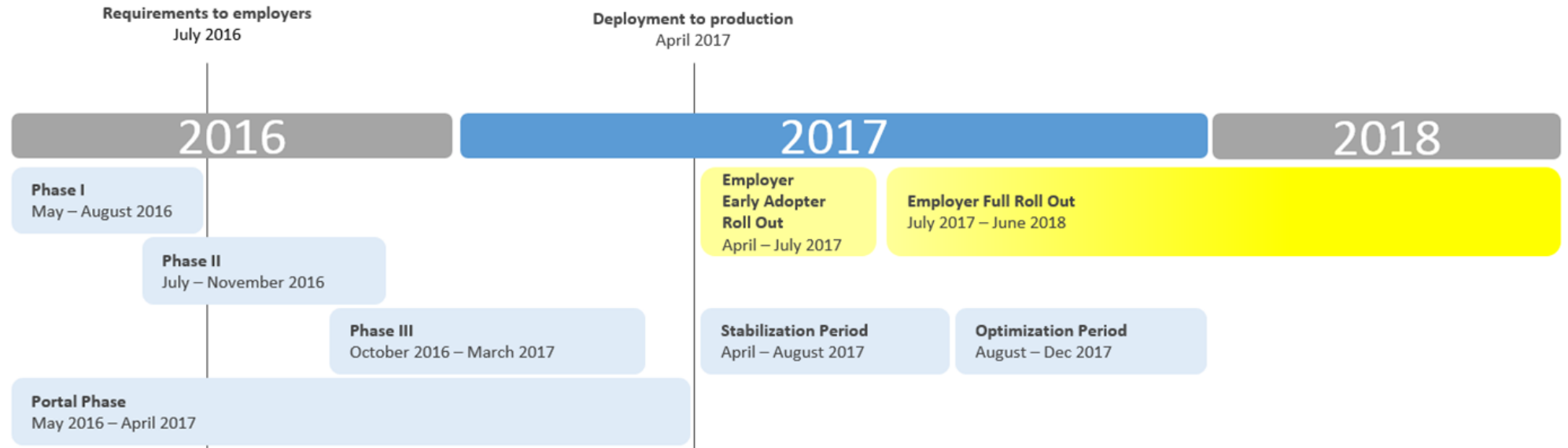
Washington State Department of Retirement Systems | 800.547.6657 |

Record Keeper Transition

- ❑ March 4, 2016 – Data for 200,000 Plan 3 members went live with Empower Retirement
- ❑ Next-Gen tool coming in mid-2017



Employer Reporting Application (ERA)



DRS signed a contract with Bizagi on April 1. After a month of training, the project was kicked off in May. The project has 4 Phases scheduled for completion between now and the Early Adopter Roll Out.

DCP Auto Enroll

- ❑ New state employees will automatically be enrolled in the Washington State Deferred Compensation Program (DCP) beginning January 1, 2017
- ❑ The default contribution rate is 3 percent
- ❑ Employees will be able to opt out or set their own contribution rates
- ❑ Allows local government to use auto enroll features

Questions?



Department of Retirement Systems **Year in Review**

*Marcie Frost, Director, and Jacob White,
Legal and Legislative Services Manager*

LEOFF 2 Board
July 27, 2016



DRS Stats as of June 2016

- ☐ **Dollars Collected**
 - ☐ Members – \$1.3B last FY
 - ☐ Employers – \$2.1B last FY
- ☐ **Dollars Paid**
 - ☐ \$357M in June 2015
 - ☐ \$4.4B last FY
- ☐ **Team Members - 247**
- ☐ **Employers - 1326**
- ☐ **Plan Members**
 - ☐ Active – 311,137
 - ☐ Annuitants – 170,395
 - ☐ Inactive – 246,572
 - ☐ Total – 728,104
- ☐ **Work Load**
 - ☐ Phone Calls – 189,302
 - ☐ Walk-Ins – 5,883
 - ☐ Emails – 17,316
 - ☐ Estimates – 18,628
 - ☐ Calculations – 11,059
 - ☐ Recalculations – 6,748

Strategies/Breakthrough Map

- ☐ New initiatives or operational capability improvements
- ☐ Clarity to the organization about the resource allocation/priorities
- ☐ Provides direction to the Project Management Division

2015-17 Strategic Initiatives

KEY GOAL	July 2015-June 2016	July 2016-June 2017	July 2017-June 2018
Elated Customers	Recalc Black Belt Project (Seth)	Autocalc Pilot (Seth)	
	Online Service Enhancements (Rose)	EFT Withdrawals (Mike)	
		Online Withdrawal (Shawn)	
	Recordkeeper Enhancements (Shawn)		
	DCP Auto-Enroll for New Hires (Shawn)		
		Final Month Payments (Jacob)	
Engaged Team Members	Facility Planning (Mike)		
	"DRS U" (Chris)		
		Enterprise Change Mgmt (Shawn)	
Vigilant Resource Steward or Best Practice Leader			
		System Modernization Planning – Phase 2 (Rose)	
Reliable Partner		Employer Reporting Application (Shawn)	
		Hosting Environment (Rose)	
		Implement 2016 Legislative Projects (mix)	

DRS Perspective on Culture

- ☐ Customer satisfaction with high levels of team engagement
- ☐ Emphasis on connective every team member into the management system
- ☐ High levels of self and team accountability
- ☐ Problem solving by everyone – common language
- ☐ Leadership that is supportive and engaged – facilitating style
- ☐ Start with yes
- ☐ One team approach to serving the customer

Customer Satisfaction

O1-Customer Satisfaction (Seth)

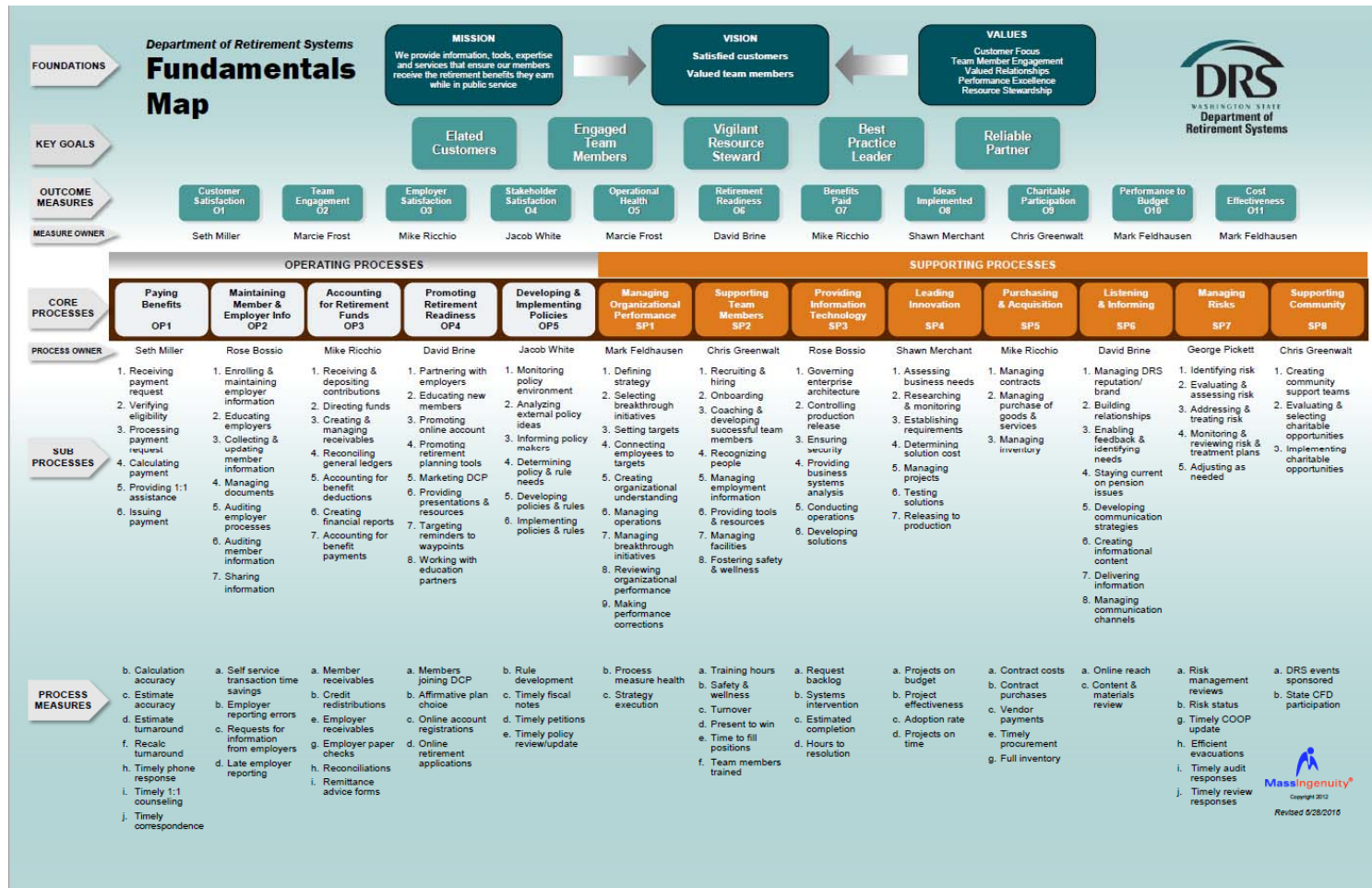
	Category	QTR1	QTR2	QTR3	QTR4	QTR5	QTR6	QTR7	QTR8	QTR9	QTR10	QTR11	QTR12	QTR13	QTR14	QTR15	QTR16
Respectful	Valued Customer			87%	96%	94%	98%	95%	95%	94%	96%	97%	98%	96%	100%	97%	99%
	Carefully Guided			79%	87%	86%	93%	85%	90%	89%	90%	90%	91%	94%	97%	96%	93%
	Informed of Issues			77%	88%	83%	84%	83%	86%	85%	89%	90%	88%	93%	89%	92%	94%
Responsive	Quick Access			91%	96%	94%	97%	92%	95%	93%	95%	92%	96%	96%	96%	94%	94%
	Timely Response			82%	91%	92%	92%	91%	90%	89%	91%	89%	93%	93%	93%	97%	94%
	Informed Status			74%	81%	79%	80%	80%	84%	83%	80%	77%	73%	87%	85%	91%	88%
	Anticipate Needs			80%	87%	89%	93%	92%	91%	89%	93%	91%	93%	95%	93%	97%	99%
	Online Tools			81%	86%	85%	86%	90%	91%	90%	88%	90%	90%	91%	90%	92%	88%
Right	Accurate Info			89%	93%	92%	94%	94%	93%	90%	94%	94%	96%	97%	98%	97%	95%
	Correct/Timely \$			90%	95%	97%	94%	95%	93%	96%	95%	94%	97%	97%	95%	95%	97%

Team Engagement

O2-Team Engagement (Marcie)

Category	QTR1	QTR2	QTR3	QTR4	QTR5	QTR6	QTR7	QTR8	QTR9	QTR10	QTR11	QTR12	QTR13	QTR14	QTR15	QTR16
Customer Focused	84%	88%	90%	79%	76%	74%	67%	76%	80%	78%	85%	84%		86%	86%	86%
People & Team Focused	79%	79%	72%	70%	70%	72%	74%	78%	78%	76%	77%	76%		79%	82%	84%
Support & Engaged Leadership	79%	84%	74%	72%	66%	66%	70%	76%	81%	75%	80%	83%		84%	88%	88%
Open & Transparent Comm	71%	78%	76%	75%	76%	71%	61%	68%	64%	63%	70%	67%		75%	77%	81%
Learning & Growth	71%	76%	76%	75%	74%	76%	72%	76%	76%	75%	83%	83%		82%	81%	77%
Accountability	74%	79%	79%	73%	70%	68%	70%	76%	80%	76%	77%	71%		67%	72%	70%
Pursuit of Excellence	86%	91%	91%	86%	81%	79%	75%	83%	88%	83%	85%	83%		84%	89%	93%

Fundamentals Map

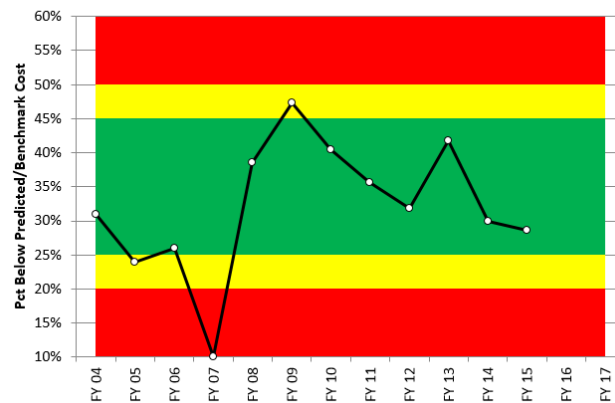


Quarterly Target Review Success Factors

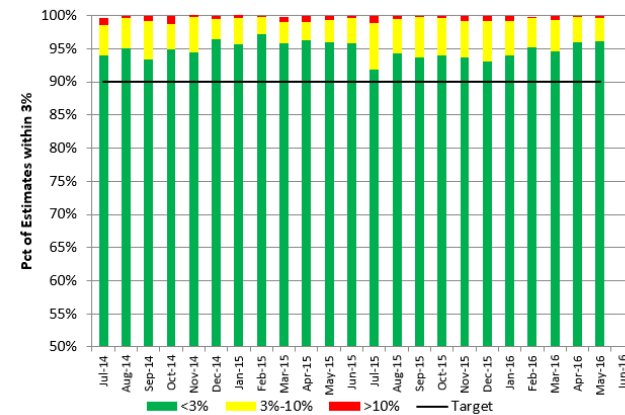
- ☐ Transparency is key to engagement
- ☐ What gets measured gets managed
- ☐ Creating an environment where everyone is responsible for performance
- ☐ High levels of accountability by agency leadership
- ☐ Table top exercises
 - ☐ D&D Benefits
 - ☐ Flipping the pyramid

Quarterly Target Review

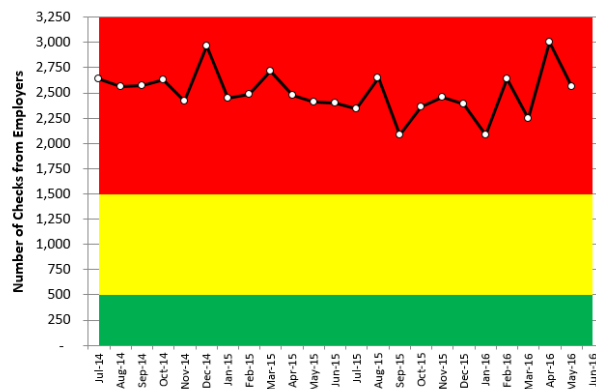
O11-Cost Effectiveness (Mark)



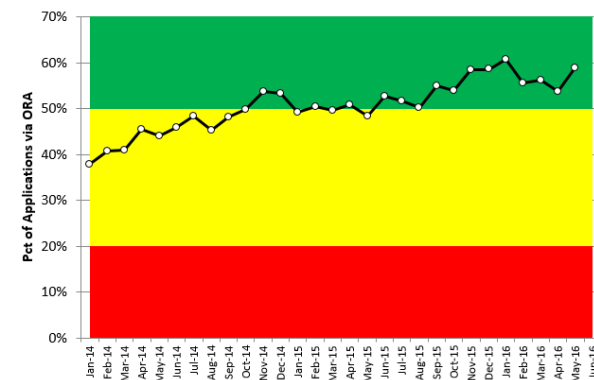
OP1c-Estimate Accuracy (Seth)



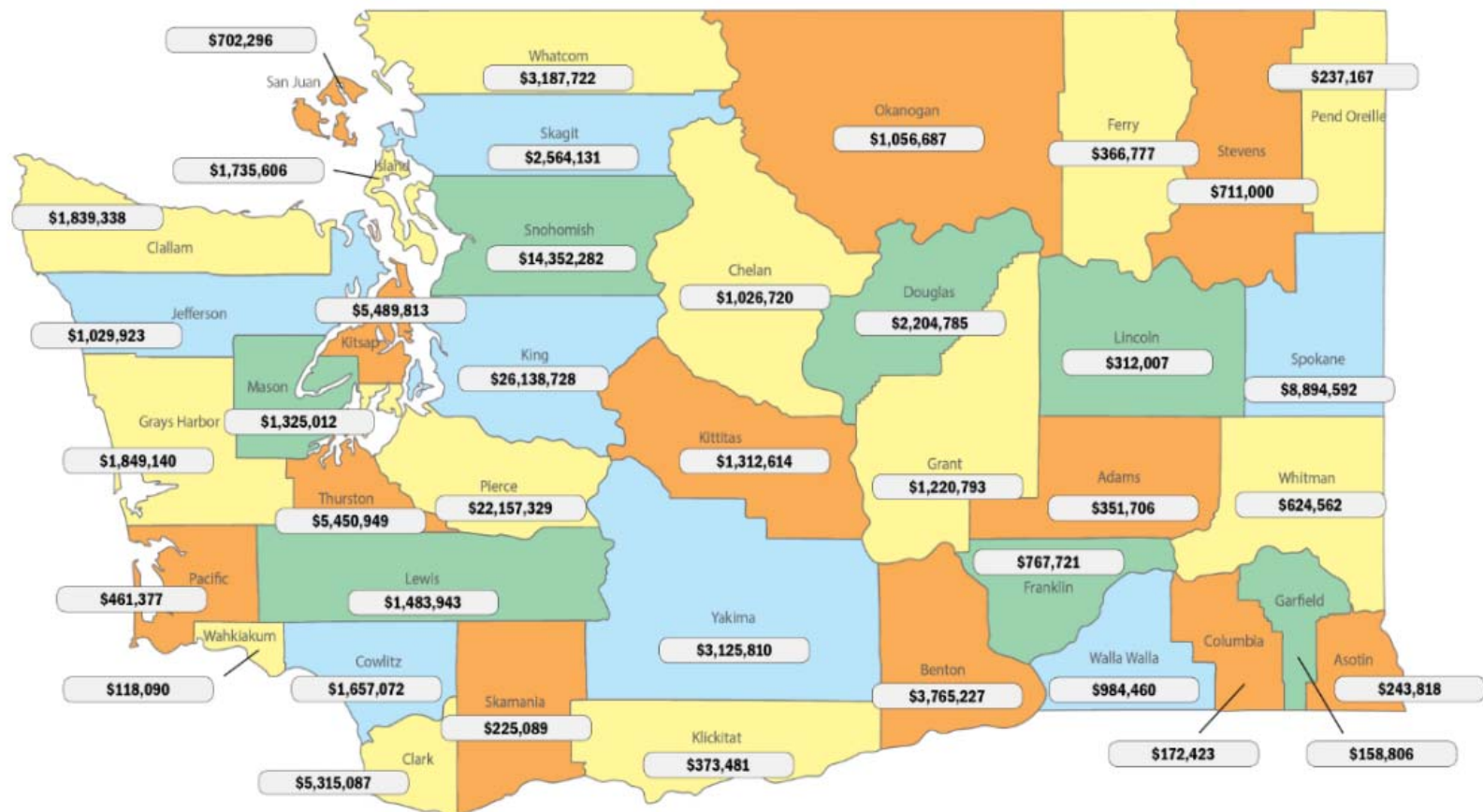
OP3g-# of Employer Paper Checks (Mike)



OP4d-Online Retirement Applications (David)



Benefits Paid to LEOFF 2 Annuitants FY 2015-2016



Disability Determinations

- ☐ Increasing Complexity and Volume
 - ☐ PTSD claims becoming more frequent
 - ☐ Multi causal claims increasing as population ages
- ☐ Evaluating Ways to Make Determinations
 - ☐ Increased Use of Independent Medical Evaluations
 - ☐ Other Sources of Medical Review
- ☐ Inter-agency agreement with OAH

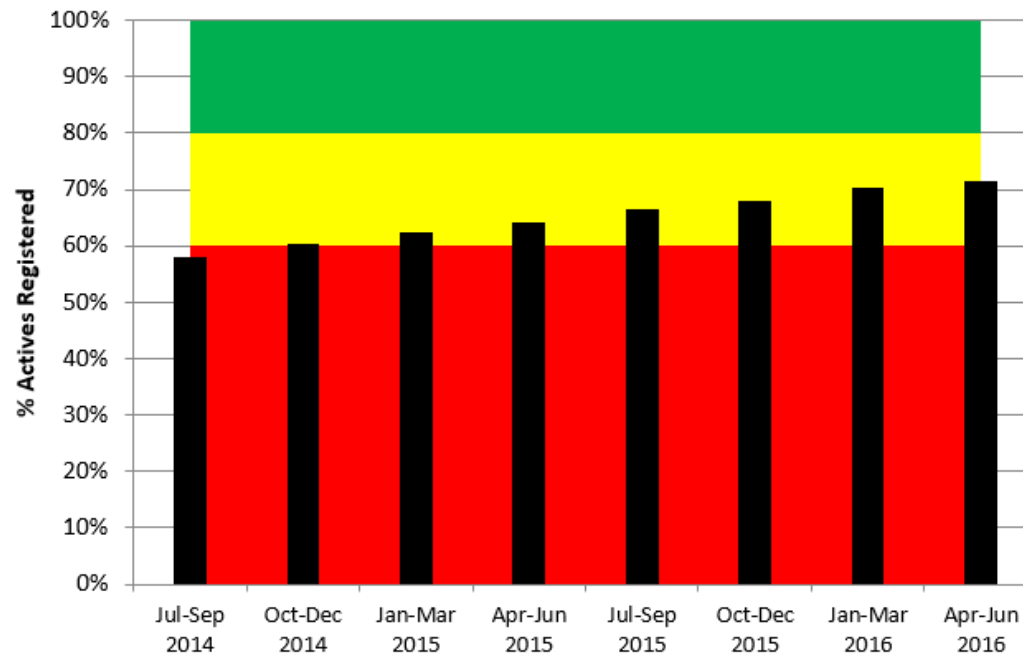
Purchase of Additional Annuity

Retirement Year	Paid PAA Optional Bills	Sum of Purchase Amount
2014	11	\$2,387,485
2015	67	\$14,851,512
2016	17	\$3,467,626
Grand Total	95	\$20,706,623

- ❑ SB 6264 allows LEOFF Plan 2 retirees whose retirement was effective prior to June 1, 2014, to purchase an annuity between January 1, 2017 and June 1, 2017
- ❑ About 7,000 retirees are eligible
- ❑ A minimum payment of \$25,000 is required

Online Account Access

OP4c-% Mbrs Registered for Online Acct Access (David)



Online Account Access Enhancements

Change Direct Deposit

Current Direct Deposit for PERS 1

[Return to Direct Deposit List](#)

Status: Ready for Direct Deposit		
Next Payment Date: 04/29/2016	Financial Institution:	U.S. Bank NA
	Transit Routing Number:	125000105
	Account Type:	Checking
Will deposit to: U.S. Bank NA	Account Number:	XXXXXXXXXXXX6789
	Benefit Paper Statement Option:	When a change is made to my account and at the end of the year.
	Established:	12/02/2015
	Status:	Ready for Direct Deposit

Change Direct Deposit

Bank Account Number on File:

Please enter the bank account number DRS has on file for your direct deposit. [Explain this?](#)

New Transit Routing Number:

[Explain this?](#)

Confirm New Transit Routing Number:

Validate Number

For security purposes, customers with an existing direct deposit are required to validate their current bank account information before updating their direct deposit.

Change Beneficiary Designation - All Beneficiaries

Current Beneficiary Designations

[What You Need Before You Start](#)

[Additional Information](#)

Retirement System or Program

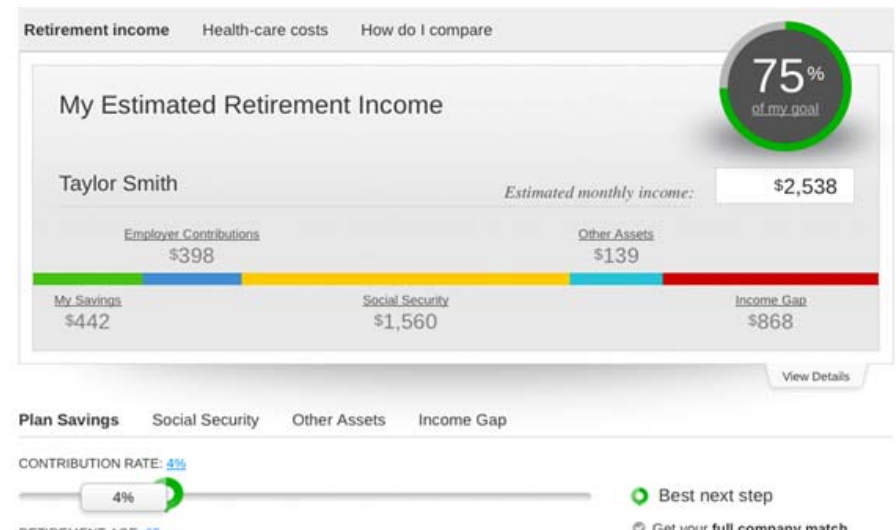
	Beneficiary	Designation	Percentage
PERS 2	View/Edit Download/Print		
	Jane Smith	Primary	50
	Tammy Smith	Primary	25
	John Smith	Primary	25
	Make A Wish	Contingent	50
	Smith, Joan (Estate Of)	Contingent	50
SERS 3	View/Edit Download/Print		
	Tammy Smith	Primary	100
DCP	View/Edit Download/Print		
	Tammy Smith	Primary	100

Duty-Related Death Benefit

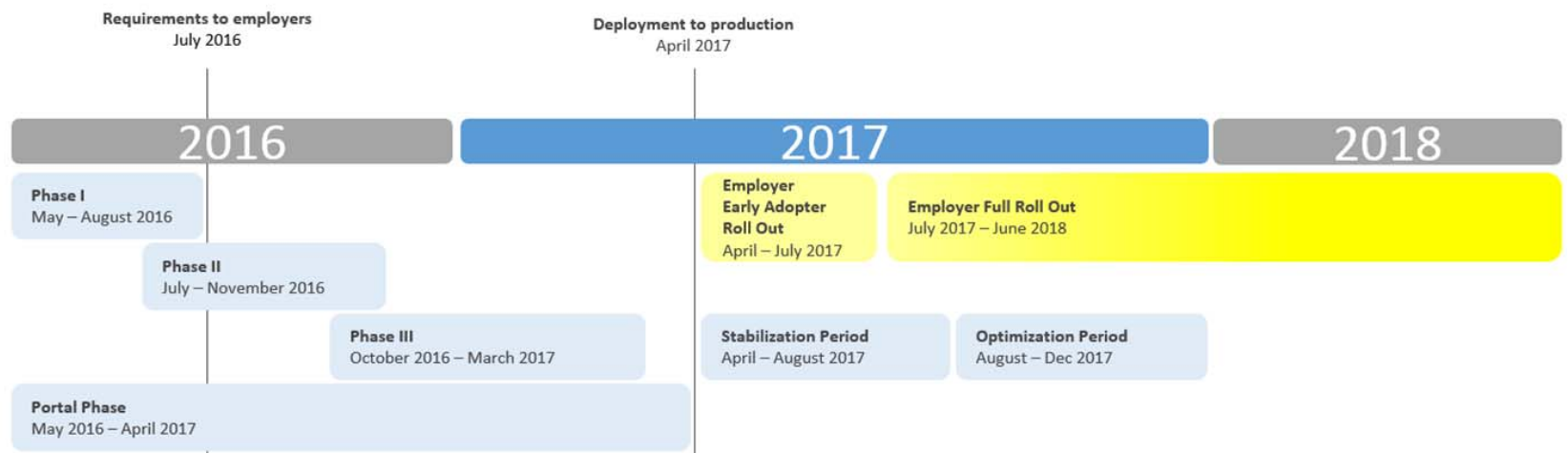
	Beneficiary	Designation	Percentage
PERS 2	View/Edit Download/Print		
	Jane Smith	Primary	50
	Tammy Smith	Primary	25
	John Smith	Primary	25
	Make A Wish	Contingent	50
	Smith, Joan (Estate Of)	Contingent	50

Record Keeper Transition

- ❑ March 4, 2016 – Data for 200,000 Plan 3 members went live with Empower Retirement
- ❑ Next-Gen tool coming in mid-2017



Employer Reporting Application (ERA)



DRS signed a contract with Bizagi on April 1. After a month of training, the project was kicked off in May. The project has 4 Phases scheduled for completion between now and the Early Adopter Roll Out.

DCP Auto Enroll

- ☐ New state employees will automatically be enrolled in the Washington State Deferred Compensation Program (DCP) beginning January 1, 2017
- ☐ The default contribution rate is 3 percent
- ☐ Employees will be able to opt out or set their own contribution rates
- ☐ Allows local government to use auto enroll features

Questions?





SCPP Update

Date Presented:

7/27/2016

Strategic Linkage:

This item supports the following Strategic Priority Goals:
Inform the stakeholders.

ATTACHMENTS:

Description	Type
▢ SCPP July 19th Meeting Agenda	Report

Select Committee on Pension Policy

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

Regular Committee Meeting

July 19, 2016
10:00 a.m. – 12:30 p.m.*
House Hearing Room B
Olympia

AGENDA

- 10:00 a.m. **1. Approval of Minutes**
- 10:05 a.m. **2. OSA Update – Matt Smith, State Actuary**
- 10:35 a.m. **3. Update on Preliminary Audit Results –
 Aaron Gutierrez, Senior Policy Analyst**

Public Hearing with Possible Executive Session

- 10:50 a.m. **4. Rate Recommendation to the PFC – Lauren
 Rafanelli, Associate Policy Analyst**

Work Session with Possible Public Hearing

- 11:10 a.m. **5. Merger Study: Update – Aaron Gutierrez**
- 11:45 a.m. **6. WSPRS Study – Lauren Rafanelli**
- 12:30 p.m. **7. Adjourn**

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

O:\SCPP\2016\07.19.Full\0.Full.Cmte.Agenda.docx

Senator Barbara Bailey

John Boesenberg
PERS/Higher Ed Employers

Vacant
Employers

***Representative Bruce
Chandler, Vice Chair**

***Senator Steve Conway,
Chair**

Annette Creekpaum
PERS Employers

***Randy Davis**
TRS Actives

***Beverly Freeman**
PERS Employers

***Marcie Frost, Director**
Department of Retirement Systems

***Bev Hermanson**
PERS Retirees

Senator Steve Hobbs

Robert Keller
PERS Actives

**Representative Matt
Manweller**

Representative Timm Ormsby

Senator Mark Schoesler

David Schumacher, Director
Office of Financial Management

Representative Derek Stanford

J. Pat Thompson
PERS Actives

Robert Thurston
WSPRS Retirees

David Westberg
SERS Actives

**Executive Committee*

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



Agenda Items for Future Meetings

Date Presented:

7/27/2016

Summary:

2016 Agenda Items Calendar

ATTACHMENTS:

Description	Type
▢ Agenda Items Calendar	Report

MEETING DATE	AGENDA ITEMS
January 27	2016 Legislative Update
February 24	2016 Legislative Update
March 23	2016 Legislative Update
April 27	Legislative Update 2016 Interim Planning Retiree Return to Work, Educational Briefing Quarterly Budget Update
May 25	Contribution Rate Adoption Process– Lisa Won, OSA Draft Merger Study Work Plan Draft Interim Work Plan Workforce Retirement Trends and Statistics, Educational Briefing Non-LEOFF Fire Fighters, Educational Briefing
June 22	Valuation Audit Preview – Mark Olleman & Daniel Wade, Milliman LEOFF 2 Preliminary Actuarial Valuation Results – Lisa Won, OSA Contribution Rate Preview Public Pension Administration Benchmarking Analysis – Mike Heale, CEM & Mark Feldhausen, DRS Volunteer Fire Fighters and Reserve Officers Briefing – Brigitte Smith, BVFF Plan Merger – Educational Briefing Draft Merger Study Work Plan Public Testimony Retiree Return to Work, Initial Consideration Draft Interim Work Plan
July 27	Valuation Audit Results – Nick Collier, Milliman Contribution Rate Adoption DRS Annual Update – Marcie Frost, DRS LEOFF 1/LEOFF 2 Merger – Initial Consideration Public Testimony
August 24	
September 21	Financial Audit Results – Davis Accounting WSIB Annual Update Board Member Annual Training – Tor Jernudd, AGO Presumptive Medical – Initial Consideration Standby Pay as Compensation Earnable – Initial Consideration Plan Merger – Comprehensive Report Public Testimony
October 18	<i>Offsite meeting, Strategic Planning</i> <i>Proposed 2017 Meeting Calendar</i>
November 23	Plan Merger – Comprehensive Report Follow-Up Public Testimony Plan Merger Legal Briefing from Outside Legal Counsel Update of 2011 Merger Study Retiree Annuity Purchase Administrative Factors 2015 LEOFF Actuarial Valuation Report
December 7	2017 Meeting Calendar Adoption Risk Assessment Study – OSA Plan Merger – Final Proposal Public Testimony



LEOFF 1/ LEOFF 2 Merger Study

Report Type:

Initial Consideration

Date Presented:

7/27/2016

Presenter Name and Title:

Steve Nelsen, Executive Director

Summary:

A financial merger of the LEOFF Plan 1 and LEOFF Plan 2 retirement funds raises a number of issues for plan members and retirees, LEOFF employers and the State related to funding policies, governance, and potential budget impacts. These issues should be studied by LEOFF 2 trustees.

ATTACHMENTS:

Description	Type
▣ L1/L2 Merger Study	Report
▣ L1/L2 Merger Study	Presentation



July 27, 2016

LEOFF 1/LEOFF 2 Merger Study

INITIAL CONSIDERATION

By Steve Nelsen

Executive Director

360-586-2323

steve.nelsen@leoff.wa.gov

ISSUE STATEMENT

A financial merger of the LEOFF Plan 1 and LEOFF Plan 2 retirement funds raises a number of issues for plan members and retirees, LEOFF employers and the State related to funding policies, governance, and potential budget impacts. These issues should be studied by LEOFF 2 trustees.

OVERVIEW

A merger of the LEOFF 1 and LEOFF 2 retirement funds could affect all current and future member participants and annuitants in LEOFF Plan 1 and LEOFF Plan 2. According to the Preliminary 2015 Actuarial Valuation Report, as of June 30, 2015, LEOFF Plan 2 had 17,019 active participants and 3,710 annuitants; LEOFF Plan 1 had 82 active participants and 7,507 annuitants.

The Law Enforcement Officers' and Fire Fighters' (LEOFF) Retirement System is a cost-sharing multiple-employer retirement system. Membership includes all full-time, fully compensated, commissioned law enforcement officers, and firefighters. There are two tiers in the LEOFF system referred to as LEOFF Plan 1 and LEOFF Plan 2. Both LEOFF Plan 1 and LEOFF Plan 2 provide defined retirement benefits which are financed from a combination of investment earnings, employer and employee contributions, and contributions from the State.

The LEOFF Plan 1 retirement fund and the LEOFF Plan 2 retirement fund are separate trust funds. The assets of each fund may be used solely to pay for the liabilities of the associated retirement plan. The funds are commingled for investment purposes but they are accounted for separately and reported separately in both annual financial reports and annual actuarial valuations.

There have been several legislative proposals since 2010 to merge State public pension plans, including the Law Enforcement Officers' and Fire Fighters' Plan 2 (LEOFF Plan 2), in order to save the State money by reducing State contributions to the new plan. The debate over these proposals has raised questions of whether the proposals are legal under state or federal law; how the merger impacts the State budget; and how the merger affects member benefits, plan governance and plan funding.

The Supplemental Operating Budget passed by the Legislature in 2016 included a proviso (2016 3rd sp.s. c 4 s 106) for the SCPP to work with the LEOFF Plan 2 Board, DRS, and OSA to study the legal, financial and policy issues raised by merging the LEOFF Plan 1 Retirement Fund with either the LEOFF Plan 2 Retirement Fund or the Teachers' Retirement System (TRS) Plan 1 Retirement Fund.

This report will provide an explanation of the issues raised by a merger of the LEOFF Plan 1 and LEOFF Plan 2 retirement funds. The analysis of these issues will not be specific to any past legislative proposal. Rather, the goal of this report is to increase understanding of the general principles that would apply to any merger of these plans.

BACKGROUND & POLICY ISSUES

Benefit Administration and Investment of the Retirement Funds

The Law Enforcement Officers' and Fire Fighters' (LEOFF) Retirement System was created in 1970 by merging a number of separate city and county retirement plans into one state-wide plan. The LEOFF Retirement fund was established to pay for the liabilities of this new retirement system. The administration of the LEOFF Retirement System and the investment of fund assets was initially the responsibility of the Public Employees' Retirement System (PERS) Board.

The responsibility for administering the LEOFF Retirement System benefits was transferred from the PERS Board to the newly-created Department of Retirement Systems (DRS) in 1977. DRS continues to administer LEOFF member benefits to this day. On October 1, 1977, the original LEOFF system (Plan 1) was closed to new members and a new tier of benefits, LEOFF Plan 2, was established for all new LEOFF members. LEOFF Plan 2 currently remains open. The PERS Board continued to invest the LEOFF Retirement Systems fund, which included assets and liabilities of both LEOFF Plan 1 and LEOFF Plan 2, until 1981 when the Board was abolished and investment authority for the fund was transferred to the newly-created Washington State Investment Board (WSIB) where it remains today.

The Pension Funding Act of 1989 (c. 272, laws of 1989) split the assets and liabilities of the LEOFF Retirement System into separate funds for LEOFF Plan 1 and LEOFF Plan 2. Both funds are commingled for investment purposes as part of the Commingled Trust Fund managed by the SIB but assets and liabilities are accounted for separately.

The WSIB has the responsibility for investing all the state administered pension funds, including both the LEOFF Plan 1 retirement fund and the LEOFF Plan 2 retirement fund. The statutory mandate for the WSIB is to maximize return at a prudent level of risk.¹ The retirement funds collectively are called the Commingled Trust Fund (CTF). Established on July 1, 1992, the CTF is a diversified pool of investments including fixed income, public equity, private equity, real estate and tangible assets.

The CTF return was 4.93 % for the 2014-2015 fiscal year. The net assets held in trust for all the pension and benefit funds in the CTF totaled \$80.5 billion as of June 30, 2015. The net assets held in trust for LEOFF Plan 2 was \$9.83 billion or approximately 12% of the total pension and benefit funds in the CTF. The net assets held in trust for LEOFF Plan 1 was \$5.61 billion or approximately 7% of the total pension and benefit funds in the CTF.

LEOFF 1 Contributions

LEOFF Plan 1 is a cost-sharing multiple employer retirement system which has been funded by a combination of contributions from three parties: the employers, the employees, and the state. Initially, the contribution rates for LEOFF Plan 1 were set at 6% of salary for both employees and employers and totaled approximately \$266 million. State contributions were made by ad hoc legislative appropriations unrelated to employee salaries and totaled approximately \$1,801 million. The relative historical share of contributions to the Plan 1 fund from the three parties is: 77% from state appropriations, 11.5% from employer contributions, and 11.5% from employee contributions.

The assets of the LEOFF Plan 1 retirement fund came to exceed the total actuarial liabilities of the system during the late 1990s when there was an extended period of much higher-than-expected

¹ RCW 41.33A.110

investment returns. The state ceased making appropriations to the plan after June 30, 1999. Member and employer contributions were statutorily suspended in June 2000.

The Office of the State Actuary provides an Actuarial Valuation Report to the Pension Funding Council every two years and the Council has the authority adopt any changes to the state contribution rate for LEOFF 1 as may be required. There were approximately 82 active LEOFF Plan 1 members and 7507 annuitants as of June 30, 2015.

LEOFF 2 Contributions

LEOFF Plan 2 is a cost-sharing multiple employer retirement system which is funded by a combination of contributions from three parties pursuant to a statutory cost sharing formula under which the members pay 50% of the total annual required contributions, the employers pay 30%, and the State pays 20%.² These costs are charged to members, employers and the State as a percentage of the member's salary.

The cost of the plan is evaluated annually by the Office of the State Actuary in their annual Actuarial Valuation Report. The contribution rates are adopted periodically by the LEOFF Plan 2 Retirement Board³ based on the current and projected costs of the plan, the current and projected funding status of the plan and three statutory funding goals:

- To fully fund the plan;⁴
- To establish long-term state, employer and member contribution rates which will remain a relatively predictable and stable portion of future state, employer and member budgets;⁵and,
- To fund, to the extent feasible, all benefits for plan 2 members over the working lives of those members so that the cost of those benefits are paid by the taxpayers who receive the benefit of those members' service.⁶

The LEOFF Plan 2 Retirement Board has adopted modifications to the second goal to include the additional objective of rate stability and to reflect the interests of employers and members, not just the State. The original statutory goal was simply, "To establish long-term employer contribution rates which will remain a relatively predictable portion of future state budgets."

Rates are also adjusted periodically by the LEOFF Plan 2 Retirement Board to reflect increased costs as a result of benefit improvements.⁷ The current contribution rates adopted by the LEOFF Plan 2 retirement Board through June 30, 2017 are 8.46 percent member, 5.08 percent employer, and 3.38 percent State. There were approximately 17,019 active LEOFF Plan 2 members and 3,710 annuitants as of June 30, 2015.

Funding Policies

Both LEOFF Plan 1 and LEOFF Plan 2 are valued and funded according to a complex arrangement of actuarial funding methods, long-term economic assumptions, demographic assumptions and actuarial funding policies. Many of these policies are the same for both plans but there are some differences which are important to understand and consider in the context of a financial merger of the plans.

² RCW 41.26.725(1)

³ RCW 41.26.725 and RCW 41.45.0604

⁴ RCW 41.45.010(1)

⁵ RCW 41.45.010(4)

⁶ RCW 41.45.010(5)

⁷ RCW 41.45.070

Actuarial Funding Method

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

There is a statutory funding policy to fully amortize any unfunded liability which may emerge in LEOFF 1 no later than June 30, 2024.⁸ Both the State and LEOFF employers are likely to incur increased costs if LEOFF Plan 1 comes out of fully funded status which would create a need for LEOFF Plan 1 funding policies to be developed and coordinated with LEOFF Plan 2 funding policies established by the Board.

The Aggregate Cost Method is used in LEOFF Plan 2 to determine the normal cost and the actuarial accrued liability. Under this method, the unfunded actuarial present value of fully projected benefits is amortized over the future payroll of the active group. The entire contribution is considered normal cost and no UAAL exists.⁹

The LEOFF Plan 2 Retirement Board has used a variation of the Entry Age Normal Cost Method since 2009 to match contribution rates to the expected long-term cost of the plan.

Long-Term Economic Assumptions

In order to calculate the necessary current contribution rates for a plan, it requires projecting the future costs of paying out plan benefits, projecting the future value of current retirement fund assets and future contributions, and converting these projections into present day values. These calculations require the use of long-term economic assumptions. The long-term economic assumptions for LEOFF Plan 2 are adopted by the LEOFF Plan 2 Retirement Board. The long-term economic assumptions for LEOFF Plan 1 are set in statute.

Assumption	LEOFF 2	LEOFF 1
Investment Rate of Return	7.50%	7.70%
Salary Growth	3.75%	3.75%
Inflation	3.00%	3.00%
Growth in Membership	1.25%	1.25%

Demographic Assumptions

Assumptions about future non-economic events are also an important necessary component of the overall funding policies for both LEOFF 1 and LEOFF 2. Key demographic assumptions include:

- Members' future rates of retirement and disability.
- Their total length of service.
- Their life expectancy after retirement.
- The life expectancies of their surviving spouses and other beneficiaries.

⁸ RCW 41.45.010(2)

⁹ 2009 LEOFF Actuarial Valuation Report, Office of the State Actuary p. 36

The Office of the State Actuary performs an experience study at least once every six years to determine at what rate the above factors have actually occurred in the retirement systems.¹⁰ The experience study compares actual experience to the assumptions and, if necessary, OSA makes adjustments to the rates for future actuarial valuations. For LEOFF Plan 2, any changes recommended by OSA must be adopted by the LEOFF Plan 2 Retirement Board.¹¹

The most recent demographic experience study was published by the Office of the State Actuary in September, 2014. The study covered experience from 2007-2012. The study reported experience in LEOFF 1 separate from LEOFF 2 and developed different assumptions for each plan. One of the recommendations of that study was to modify mortality assumptions to take into account projected future improvements in life expectancy. These recommendations were adopted by the LEOFF 2 Board and incorporated into actuarial assumptions for LEOFF 2. The recommendations were adopted by the Legislature for LEOFF Plan 1.

Actuarial Value of Assets v. Market Value of Assets (“Smoothing”)

For the actuarial valuation report, the Office of the State Actuary calculates the actuarial value of assets using an asset smoothing method adopted by the Legislature in 2003. The asset smoothing method applies to both LEOFF Plan 1 and LEOFF Plan 2. Each year OSA determines the amount the actual investment return deviates from the expected investment return and smooths that year’s gain or loss over a period of up to 8 years according to how much the actual gain or loss differs from the assumed gain.

Asset Value Corridor

Additionally, to ensure the actuarial value of assets maintains a reasonable relationship to the market value of assets, a 30% asset value corridor was statutorily adopted in 2004.¹² This means that the actuarial value of assets may not exceed 130% nor drop below 70% of the market value of assets. The asset value corridor applies to both LEOFF 1 and LEOFF 2. On June 30, 2015, the asset value ratio for LEOFF 2 was 95% and for LEOFF 1 was 96%

The Funded Status of LEOFF 1 and LEOFF 2

The funded status of a plan is calculated by comparing the plan’s assets to the present value of earned pension benefits of the plan’s members. A plan’s funded status can vary significantly depending on the assumptions and methods used to determine the value of the plan’s assets and liabilities. The Office of the State Actuary has historically reported the funding status for both LEOFF 1 and LEOFF 2 by comparing the actuarial value of assets (AVA) to the liabilities of the plan calculated using the Projected Unit Credit (PUC) actuarial cost method and the long-term earnings assumption.

The use of this particular funded status reporting method is helpful for comparing a plan’s funding progress over time, measuring the impact of assumption changes, or serving as a standard for comparing plans that use different funding methods. However, this particular funded status measurement can also be very misleading if taken out of context. The funded ratio may appear either overstated or understated to the extent that the actuarial value of assets deviates substantially from the market value of assets.

¹⁰ RCW 41.45.090

¹¹ RCW 41.26.720

¹² RCW 41.45.035(3)(a)

Governance

LEOFF Plan 2

Effective July 1, 2003, the LEOFF Plan 2 Retirement Board was established by Initiative 790 to provide governance of LEOFF Plan 2. The Board's duties include adopting contribution rates, actuarial assumptions, and actuarial methods. The Board is also responsible for studying pension issues and recommending policy changes to the Legislature for the LEOFF Plan 2 retirement plan.

LEOFF Plan 1

In 2003 the Select Committee on Pension Policy (SCPP) was established by the Legislature to study pension issues, develop pension policies, and make recommendations to the Legislature.¹³ The SCPP is a 20-member committee composed of elected officials, stakeholder representatives, employer representatives, and the Directors of the Department of Retirement Systems and the Office of Financial Management. Prior to 2003, the Joint Committee on Pension Policy (JCPP) performed these duties.

The SCPP meets during the legislative interim. Its specific areas of interest include benefits design, retirement eligibility requirements and pension funding methods. The SCPP receives the results of actuarial audits administered by the Pension Funding Council, and reviews and makes recommendations to the Pension Funding Council regarding changes to retirement assumptions or contributions rates. Under current law, the SCPP may form a public safety subcommittee to study pension issues affecting members of LEOFF, the Public Safety Employees Retirement System (PSERS), and the Washington State Patrol Retirement System (WSPRS)¹⁴.

Legislative History

House Bill 2097 in 2011 proposed merging LEOFF Plan 2 with LEOFF Plan 1 and temporarily reducing the State contribution to the merged plan. That bill did not pass the legislature.

Section 105 of the 2011 budget required the Office of the State Actuary to study the issue of merging LEOFF plans 1 and 2 into a single fund. The results of the study were reported to the ways and means committees of the House of Representatives and the Senate in December, 2011.

House Bill 2350/Senate Bill 6563 in 2012 proposed merging LEOFF Plan 1 with LEOFF Plan 2 and reducing the State contribution to the merged plan. That bill was recommended by the LEOFF Plan 2 Retirement Board did not pass the legislature.

Senate Bill 6668 in 2016 proposed merging LEOFF Plan 1 with the Teachers' Retirement System (TRS) Plan 1 and reducing the State contributions to pay the unfunded liability in TRS Plan 1.

The Supplemental Operating Budget passed by the Legislature in 2016 included a proviso (2ESHB 2376, sec. 106) for the SCPP to work with the LEOFF Plan 2 Board, DRS, and OSA to study the legal, financial and policy issues raised by merging the LEOFF Plan 1 Retirement Fund with the LEOFF Plan 2 Retirement Fund and the Teachers' Retirement System (TRS) Plan 1 Retirement Fund.

Senate Bill 6166 in 2001 proposed terminating LEOFF Plan 1 and using some of the assets of the fund for state purposes as well as for the cost to "restate" the plan and pay for a one-time payment to LEOFF Plan 1 beneficiaries. The bill did not pass the legislature.

¹³ RCW 41.04.281

¹⁴ RCW 41.04.278(2)(a)

Legal Framework

Under federal law, the assets of a tax-qualified retirement plan such as LEOFF Plan 1 and LEOFF Plan 2 may be used only for the exclusive benefit of members of the plan.

There is a body of state case law across the country regarding plan mergers which may be illustrative of potential issues in evaluating a merger but there is no similar case law in Washington.

There is a significant body of Washington case law defining members' rights to retirement benefits and to have their retirement plan funded on a sound actuarial basis.

POLICY ISSUES

What is a “merger” of LEOFF Plan 2 with LEOFF Plan 1?

A merger of the LEOFF Plan 2 Retirement System with the LEOFF Plan 1 Retirement System would combine all of the assets and liabilities of each system into one new system. In its simplest terms, a merger is a purely financial transaction.

Why would anyone want to merge LEOFF Plan 2 with LEOFF Plan 1?

Past merger proposals have included a temporary reduction in State contributions to the new plan. If the funding status of the new plan is improved compared to the current status of LEOFF Plan 2, then that would decrease the risk of poor investment experience in the future creating a need to increase contributions to LEOFF Plan 2 members, employers and the State. The member demographics of the plans, and the fact that LEOFF Plan 2 is an open system while LEOFF Plan 1 is a closed system, may also present opportunities for risk mitigation.

But, a merger also can create new risks so it is prudent for LEOFF Plan 2 Retirement Board members to inform themselves of these risks and take steps to mitigate those risks as part of any merger since Board members have a fiduciary duty to the plan.

How much is the surplus in LEOFF Plan 1?

The preliminary results of the 2015 Actuarial Valuation prepared by the Office of the State Actuary indicate that as of June 30, 2015, LEOFF Plan 1 had \$4.307 billion in liabilities and an actuarial value of assets of \$5.404 billion for a surplus of \$1.097 billion. However, any evaluation of the LEOFF Plan 1 surplus in the context of a LEOFF 2/LEOFF 1 merger must consider three important questions:

1. What is the surplus as of today?
2. How does the market value of assets (MVA) differ from the actuarial value of assets (AVA)?
3. How does the calculation of LEOFF 1 liabilities differ from LEOFF 2?

Today's Value: The current Actuarial Valuation Report (AVR) prepared by the Office of the State Actuary (OSA) is based on asset and liability information as of June 30, 2015. The Washington State Investment Board (WSIB) updates the market value of plan assets monthly. There is no monthly projection of liabilities for LEOFF Plan 1. The most recent investment report from the WSIB (May 2016) indicated a market value for LEOFF Plan 1 of \$5.313 billion which is lower than the value of assets in the 2015 AVR.

It is also important to note how investment performance since June 2015 has differed from the projections used to calculate future liabilities in the 2015 AVR. LEOFF Plan 1 is expected to earn 7.7%/year. However, actual investment returns through May, 2016 were just over 2%.

Market Value/Actuarial Value: The Actuarial Value of Assets (AVA) is calculated by smoothing investment gains and losses over a period of up to 8 years depending on how much the actual investment returns differ from the projected investment returns. The AVA for LEOFF Plan 1 as of June 30, 2015 was \$5.404 billion. The Market Value of Assets (MVA) is the actual value of assets in the fund as of a certain date. The MVA for LEOFF Plan 1 as of June 30, 2015 was \$5.610 billion. So, as of June 2015 there were \$206 million in deferred gains in LEOFF Plan 1.

Using a “smoothing method” is an appropriate and accepted method of reducing the effect of investment return volatility on contribution rates. But, using a “smoothed value” of assets may not be as appropriate for purposes other than rate-setting. For instance, if the legislation merging LEOFF 2 with LEOFF 1 includes “spending” some of the surplus assets in the form of contribution rate reductions, then it would be appropriate to consider the impact on the fund using both the actuarial value and the market value.

Calculating LEOFF 1 liabilities: The long-term economic assumptions used by both LEOFF Plan 2 and LEOFF Plan 1 are identical in most respects and both systems have adopted the expected improvements in life expectancy recommended by the Office of the State Actuary (OSA). However, there is one significant difference related to the expected future return on investments. The LEOFF Plan 2 Retirement Board has adopted the 7.5% earnings assumption recommended by OSA. The investment assumption for LEOFF Plan 1 is 7.7%.

It would be important to know how the financial risks of a LEOFF 2/LEOFF 1 merger would differ using a 7.5% investment return assumption.

Who does the LEOFF Plan 1 surplus belong to?

All the assets in LEOFF Plan 1 are held in trust for the exclusive benefit of the beneficiaries of LEOFF Plan 1. The fact that LEOFF Plan 1 may have a “surplus” or more assets at a point in time than it is projected to need does not affect the legal status of any of the assets in the fund.

The idea that “surplus assets in the fund belong to the plan sponsor” is a concept related to closing or terminating a plan and is discussed later in this report. Neither the existence of a surplus nor a merger allow for fund assets to be distributed or diverted to a plan sponsor.

How does a merger affect LEOFF Plan 2 benefits?

A merger does not require that all members of the new plan receive the same benefits. Typically, the new plan continues the same benefits previously provided to members and beneficiaries as separate tiers of benefits.

State law prohibits a merger from reducing benefits provided to members. Benefits can be increased in the same piece of legislation that merges plans but any benefit increase is separate and distinct from the merger itself.

How would a LEOFF 2/LEOFF 1 merger impact the State budget?

LEOFF Plan 2 receives 20% of the cost of the plan from the State as an appropriation from the General Fund. That appropriation will be approximately \$130 million in the 2015-17 biennium. The required biennial appropriation for 2017-19 has yet to be determined but is likely to increase due to projected growth in the LEOFF Plan 2 membership and salary base. LEOFF Plan 1 also has received a portion of its funding from the State in the past but no contributions have been required since 2001.

Past LEOFF 2/LEOFF 1 merger proposals have included temporary reductions in state funding to the newly created plan in consideration of the very healthy funding status of LEOFF Plan 1. For example, if the State contributions to pay for LEOFF Plan 2 benefits in the new plan were reduced to 0% for the next two biennia, the State would recognize approximate budget savings of over \$260 million. Any long-term state budget risks or benefits created by a merger should also be evaluated.

What legal issues are raised by a LEOFF 2/LEOFF 1 merger?

A merger of public retirement plans raises questions of both federal and state law.

Public pension plans must be qualified under federal law in order for members and plan sponsors to receive favorable tax treatment for their contributions and earnings. So, when a merger creates a new plan, that new plan must be reviewed by the Internal Revenue Service to determine if it is qualified. The Internal Revenue Service recently issued notice that they will cease doing plan determination letters for existing plans. However, they will continue to issue plan qualification determinations for new plans including a new plan created by a merger. The current estimated turnaround time for a determination is six months.

The State Attorney General's Office is responsible for this evaluation. The firm of Ice Miller has been used as a Special Assistant Attorney General in the past to provide advice related to federal tax to the LEOFF Plan 2 Retirement Board, the Department of Retirement Systems, the State Senate and the Select Committee on Pension Policy.

One of the key requirements for a retirement plan to be qualified is that assets must be held in trust for the exclusive benefit of the plan beneficiaries. Some of the additional criteria used to evaluate a proposed merger include: are the plans open or closed to new members; do the plans have similar employers; are the plans over-funded or under-funded; and, are the plans demographics compatible?

Washington case law on pensions is based on the principle that pension benefits are part of a contract between the employer and employee which cannot be diminished by state law (*Bakenhus*). So, a merger cannot reduce benefits. Similarly, the courts have held that the funding which underlies the benefit promise is also subject to protection (*Weaver*). So, a merger that diminishes current or future plan funding needs to be evaluated according to these protections.

The State Attorney General's Office is responsible for this evaluation. The firm of Klausner and Kaufman has been used as a Special Assistant Attorney General in the past to provide advice related to plan terminations to the Washington State Senate and advice related to mergers to the LEOFF Plan 2 Retirement Board.

How would a LEOFF 2/LEOFF 1 merger affect plan governance?

The Pension Funding Council adopts contribution rates for LEOFF Plan 1. The Select Committee on Pension Policy studies policy issues related to LEOFF Plan 1 benefits and recommends any changes to the Legislature. A merger would not require any changes.

The LEOFF Plan 2 Retirement Board adopts contribution rates for LEOFF Plan 2, studies policy issues related to the plan and recommends any changes to the Legislature. A merger would not require any changes.

Any changes to the governance of LEOFF Plan 2 would require careful consideration. For instance, how would a temporary State contribution rate reduction to LEOFF 2 fit with the role of the LEOFF Plan 2 Retirement Board to adopt contribution rates for LEOFF Plan 2?

Some state courts have held that the right of plan members to have their plan governed by an independent board of trustees who owe a fiduciary duty to the plan, such as the LEOFF Plan 2 Retirement Board, is a benefit of the plan subject to the same legal protections as other plan benefits. That question has not been decided by Washington courts.

Mergers in the private sector are typically arm's length transactions between two different plans with separate governing bodies and separate plan sponsors. The trustees of each plan have a fiduciary responsibility to ensure that a proposed merger is in the best interest of their plan's members and negotiate the terms of the merger accordingly. But, there are no governing boards for any of the state-administered public pension plans in Washington other than LEOFF Plan 2. The terms of any merger of LEOFF Plan 2 and LEOFF Plan 1 would be established by the State Legislature in legislation.

How would a LEOFF 2/LEOFF 1 merger affect plan funding?

LEOFF Plan 2 has a current funding ratio of 105%. LEOFF Plan 1 has a current funding ratio of 125%. When the assets and liabilities of LEOFF Plan 2 and LEOFF Plan 1 are merged, the funding ratio of the newly created plan would be approximately 112%.

The fact that the funding ratio of a merged LEOFF 2/LEOFF 1 system would be over 100% means that there would likely be no short-term change in funding policy required for either plan. The funding ratio of a system plays an important part in determining the ongoing funding policies of that system so the impact of a merger or any reductions in future contributions on the projected future funding status of the merged plans becomes an important consideration.

The costs of LEOFF Plan 2 are funded 50% by members, 30% by employers and 20% by the State. The required contributions are adopted as a percentage of member salary by the LEOFF Plan 2 Retirement Board. The rates adopted by the Board are currently 8.41% for member, 5.05% for employers and 3.36% for the State through June 30, 2017. The Board is scheduled to adopt rates for the 2017-19 biennium and the 2019-21 biennium at their July 27, 2016 meeting.

No State, member or employer contributions for LEOFF Plan 1 have been required since 2001 because of the positive funding status of the plan. Contributions to LEOFF Plan 1 could be reinstated if the plan's funding status decreased due to adverse investment or actuarial experience. Any potential future member contributions would not be significant due to the low number of members currently active in the plan so the responsibility for any potential future funding requirements would fall on LEOFF employers and the State.

Any merger proposal must be carefully analyzed to evaluate the risk that insufficient contribution rates, underfunding, or poor economic or demographic experience in LEOFF 1 would impact the rates charged to LEOFF 2 members, employers or the State.

How would a LEOFF 2/LEOFF 1 merger affect investment policy?

The assets of all State-administered pension plans in Washington are currently part of the Commingled Trust Fund (CTF) invested by the Washington State Investment Board (SIB). The CTF uses the same investment policy for all plans regardless of the plan's funded status or beneficiary demographics.

A merger that included keeping the new fund in the CTF would mean no change in investment policy. A merger of two plans within the CTF into a new plan that remains in the CTF would not require any sale of assets that could create transactions costs for the new plan or other plans in the CTF.

Commingled Investment

There has been some consideration in the past as to whether LEOFF 1 assets should remain invested in the commingled trust fund or whether it would be more appropriate to invest these assets in a more conservative fund to minimize the risk of investment volatility since LEOFF 1 has been closed to new members since 1977 and the future benefits payments are more predictable, have a shorter duration and would be easier to immunize. However, there is a cost associated with a lower earning assumption. Since LEOFF 2 is an open and ongoing plan, merging LEOFF 1 with LEOFF 2 would affect analysis of this issue.

What is a plan termination and how does it apply to a plan merger?

One question that often arises when discussing merger is what happens to any remaining assets in a fund when it closes? Federal case law has said that when a private plan is terminated and all the liabilities to beneficiaries have been satisfied, any remaining assets revert to the plan sponsor (*Hughes Aircraft*). It is unclear how that holding would be applied in the context of a public plan termination. Both LEOFF employers and the State contributed to LEOFF Plan 1 so both would have a sponsorship claim to any remaining assets. The State Senate proposed a termination of LEOFF Plan 1 in 2001 which included annuitizing existing LEOFF 1 liabilities and a distribution of surplus assets to the State, LEOFF 1 employers and a payment to LEOFF 1 beneficiaries.

A termination can also occur when the last beneficiary of a plan dies and there are no longer any benefits owed. The office of the State Actuary estimates that there will continue to be some LEOFF 1 beneficiaries for more than 40 years.

The principle that surplus assets in a terminated plan belong to the plan sponsor has sometimes been misapplied to discussions of a plan merger stated as a principle that all surplus assets in a fund belong to the fund sponsor(s). But, that is not accurate for several reasons. First, a plan “termination” is a separate process under federal law from merger and different legal requirements apply. A merger does not allow for fund assets to be distributed to the plan sponsors. Second, as long as a plan has beneficiaries, all assets in the plan are held in trust for the exclusive benefit of the plan’s beneficiaries. The possible disposition of any potential remaining assets if the plan is terminated in the future does not alter the legal status of those assets while the plan is active.

What is the history of plan mergers in Washington?

Plan mergers are more common in the context of private sector Taft-Hartley pension plans but there have been several mergers of public pension plans in the State of Washington. The Law Enforcement Officers’ and Fire Fighters’ (LEOFF) Retirement System was originally created in 1970 by merging the assets and most of the liabilities of separate retirement plans administered by city and county employers throughout the State. In 1972, the Statewide City Employers’ Retirement System was merged into the Public Employers’ Retirement System (PERS).

What would happen if LEOFF 1 has an unfunded liability in the future?

There is a statutory funding policy to fully amortize any unfunded liability which may emerge in LEOFF 1 no later than June 30, 2024.¹⁵ If an unfunded liability emerges in LEOFF 1, this policy requirement could significantly impact funding requirements for LEOFF members, employers and the State in a merged plan.

¹⁵ RCW 41.45.010(2)

LEOFF 1 Supplemental Rate

When an unfunded liability emerged in both PERS Plan 1 and TRS Plan 1, the State adopted a supplemental rate to cover this cost which is charged to employers as a percentage of salary of all PERS or TRS employees, not just those in Plan 1. If an unfunded liability were to emerge in LEOFF Plan 1, the State could adopt a similar supplemental rate to cover that cost. The additional cost to LEOFF employers would likely be shared with LEOFF 2 members indirectly through the bargaining process since less money would be available for salaries, equipment and other expenses.

Financial Efficiencies

There are currently no required contributions to LEOFF Plan 1 from the State, employers or members and haven't been any required contributions for some time. Therefore, any increase in assets, such as from positive investment performance, will not decrease plan costs. Assets in the retirement fund are strictly protected under federal law for pension plans and cannot be withdrawn from the fund and used for any state or employer purpose.

A merger of the LEOFF Plan 1 and LEOFF Plan 2 retirement funds could commingle both the assets and liabilities of each plan. Therefore, any increase in assets due to positive economic or demographic experience could decrease plan costs for LEOFF members, LEOFF employers and the State.

Risk Transfer/Sharing

The assets invested in the LEOFF 1 retirement fund are currently projected to be sufficient to meet the projected liabilities of the plan. Currently, the State (and possibly LEOFF employers) would be responsible for any increased plan costs and required contributions in the future. The two primary risks of increased costs are 1) less-than-expected investment returns; and 2) higher-than-expected inflation. A merger of the LEOFF Plan 1 and LEOFF Plan 2 retirement funds could commingle the liabilities of both plans. So, an increase in LEOFF 1 costs could become the shared responsibility of LEOFF 2 members, LEOFF employers and the State.

LEOFF 2 Board Request for State Actuary Study

The Office of the State Actuary conducted a study of the issue of merging LEOFF plans 1 and 2 into a single fund which was reported to the Ways and Means Committees of the House of Representatives and the Senate in December, 2011. OSA solicited the input of the LEOFF Plan 2 Retirement Board and the questions below were submitted by the Board to the Office of the State Actuary to address in their report. Not all these questions were addressed so the current study provides an opportunity to revisit these questions and ask new questions.

1. How would a merger of LEOFF 1 and LEOFF 2 affect the projected contribution rates for both plans and impact the Board's goal of stable contribution rates? Project rates for each plan separately, both before and after the merger. Use stochastic methods to show the range of possible rate outcomes. Demonstrate the impact of the merger on the possibility that LEOFF 2 member rates will exceed 10%.
2. How would a merger affect the Board's goal of full funding for LEOFF Plan 2? Provide the funding ratios for both plans before the merger and the funding ratio of the merged plan using both the actuarial and market value of assets.
3. Identify differences between the current rate-setting cycles for LEOFF Plan 1 and LEOFF Plan 2.
4. What funding policy differences currently exist between LEOFF Plan 1 and LEOFF Plan 2? For example, the salary growth assumption, payment of the LEOFF 1 UAAL by 2024, demographic assumptions such as projected improvements in life expectancy, etc.
5. What impact, if any, will a merger have on the expected liabilities for LEOFF Plan 1? What are the risks and measures? Provide stochastic projections for investment returns and inflation.

6. How would a merger affect the analysis of current LEOFF 1 investment policies? Does a merger eliminate any need to consider a separate investment policy for LEOFF 1 assets?
7. What is the risk of LEOFF Plan 1 going into “pay as you go” status and how would a merger affect that risk?
8. What is the effect of a merger on state pension risk measures as reflected in the Pension Score Card? For instance, what is the effect of a merger on the chance that pensions will consume more than 8% of the State general Fund? What is the effect on the total weighted score? Is there a risk measure associated with the impact of pension liabilities on State bond issuances?
9. How would a merger affect the current cost policies for LEOFF 1? What are the projected costs if the State pays 100% of LEOFF 1 costs? What are the projected employer rates if any future LEOFF 1 costs are paid for via a supplemental rate charged to LEOFF employers?
10. How would a merger affect the current 50-30-20 cost-sharing requirement for LEOFF 2 liabilities? Could you continue to track LEOFF 1 liabilities separately in a merged plan?
11. To what extent could benefits be decreased in LEOFF Plan 1 under current law if an unfunded liability emerges in LEOFF Plan 1 and the decrease in liabilities is determined to be necessary for the actuarial soundness of the plan?
12. How would a change to a 4.5% salary growth assumption for LEOFF 1 affect a merged plan?
13. Graph the projected future LEOFF 1 liabilities and assets to demonstrate the projected lifespan of the plan. Overlay projections of future LEOFF 1 funded ratios with the amount of assets projected to be in the plan.

SUPPORTING INFORMATION

Merger Study Budget Proviso (2016 3rd sp.s. c 4 s 106)

During the 2016 legislative interim, the select committee on pension policy shall study Senate Bill No. 6668 (LEOFF 1 & TRS 1 merger) and report on the tax, legal, fiscal, policy, and administrative implications. In conducting the study, the select committee on pension policy shall also update its 2011 study of law enforcement officers' and firefighters' retirement system plans 1 and 2. In preparing this study, the department of retirement systems, the attorney general's office, the law enforcement officers' and firefighters' retirement system plan 2 board, and the office of the state actuary shall provide the select committee on pension policy with any information or assistance the committee requests. The committee shall also receive stakeholder input on the bill as part of its deliberation. The select committee on pension policy shall submit this report to the legislature by January 9, 2017.



LEOFF 1/LEOFF 2 Merger Study

INITIAL CONSIDERATION

July 27, 2016

PRESENTATION GOALS

► General Principles of Plan Mergers

- **Applied to LEOFF 1/LEOFF 2**
 - **Background & history**
- **Frequently Asked Questions**
- **Question & Answer Format**
- **Conversational Style**

WHAT IS A “MERGER”

- ▶ One of two ways that a plan can end
 - Financial transaction with legal consequences
 - Plan assets are combined
 - Plan liabilities are combined
 - Plan benefits are unchanged
 - Analogous to a “marriage” of plans

WHAT IS A PLAN TERMINATION?

- ▶ **One of two ways that a plan can end**
 - **Winding up of obligations**
 - Any remaining liabilities are annuitized
 - Any remaining assets revert to the plan sponsor
 - Analogous to a “death” of a plan
 - **Merger and termination are very different concepts**

WHAT IS THE PURPOSE OF A MERGER?

▶ “Win-Win”

- Investment opportunities
- Risk mitigation
- Funding improvements/savings

HOW WOULD A MERGER AFFECT THE STATE BUDGET?

- ▶ A plan merger can reduce required State contributions to the new plan
 - Base contributions
 - Supplemental contributions to reduce a plan's unfunded liability
 - State contributions to LEOFF 2 are approximately \$130 million/biennium

WHO OWNS THE LEOFF 1 SURPLUS?

- ▶ All assets in the LEOFF 1 fund are held in trust for the exclusive benefit of LEOFF 1 beneficiaries - “Exclusive Benefit Rule”

HOW MUCH IS THE LEOFF 1 SURPLUS?

- ▶ The preliminary 2015 actuarial valuation report identifies the LEOFF 1 surplus at \$1.097 billion

But, 3 important variables:

- What is the current data?
- Market value or “smoothed” value?
- What assumptions are used?

HOW DOES A MERGER AFFECT BENEFITS?

- ▶ **A plan merger does not affect benefits**
 - **New plan would have 2 tiers - LEOFF 1 and LEOFF 2 - with same benefits as now**
 - **State law prevents reduction in benefits**
 - **The merger legislation may have additional sections that affect benefits**

IS A MERGER LEGAL?

State Law Issues

- ▶ **Benefits are protected**
 - Benefit reduction protections – Bakenhus
 - Plan funding protections - Weaver

IS A MERGER LEGAL?

Federal Law Issues

- ▶ Public plans must be “qualified” in order to receive favorable tax treatment
 - Qualification requires IRS review and approval
 - Qualification provides tax benefits and bankruptcy protection

WHAT ARE THE RISKS FROM A LEOFF 1/LEOFF 2 MERGER?

- ▶ **Re-emergence of LEOFF 1 unfunded liability**
 - **Decrease in future funding increases risk**
- ▶ **Risk transfer to LEOFF 2 members**
 - **Can mitigate this risk in legislation**
- ▶ **Other changes included in legislation**

DOES A LEOFF 1/LEOFF 2 MERGER AFFECT PLAN GOVERNANCE?

- ▶ **A merger does not need to affect current pension plan governance**
 - **LEOFF 2: LEOFF 2 Board**
 - **LEOFF 1: SCPP and PFC**

- ▶ **LEOFF 1 disability boards are unchanged by a merger of LEOFF pension plans**

HOW DOES A MERGER AFFECT PLAN FUNDING?

- ▶ A merger may change both the short-term and long-term needs of the plan
 - The funding ratio of the merged plan may differ from the original plans
 - Required contributions may change
 - The normal cost of the benefits in the merged plan is not different
 - Payout schedule may change

HOW DOES A MERGER AFFECT INVESTMENT POLICY?

- ▶ **A LEOFF 1/LEOFF 2 merger would not affect investment policy**
 - **Both plans are administered by the Washington State Investment Board**
 - Both plans are currently invested in the Commingled Trust Fund
 - **Merger of LEOFF 1 with open plan might address some LEOFF 1 risks**

NEXT STEPS

- ▶ **The next presentation is scheduled for September 21, 2016**
 - **The presentation will cover the same topic areas as this presentation**
 - **Specific information and analysis will be provided related to LEOFF Plan 2**

QUESTIONS

Steve Nelsen

Executive Director

steve.nelsen@leoff.wa.gov

(360) 586-2320